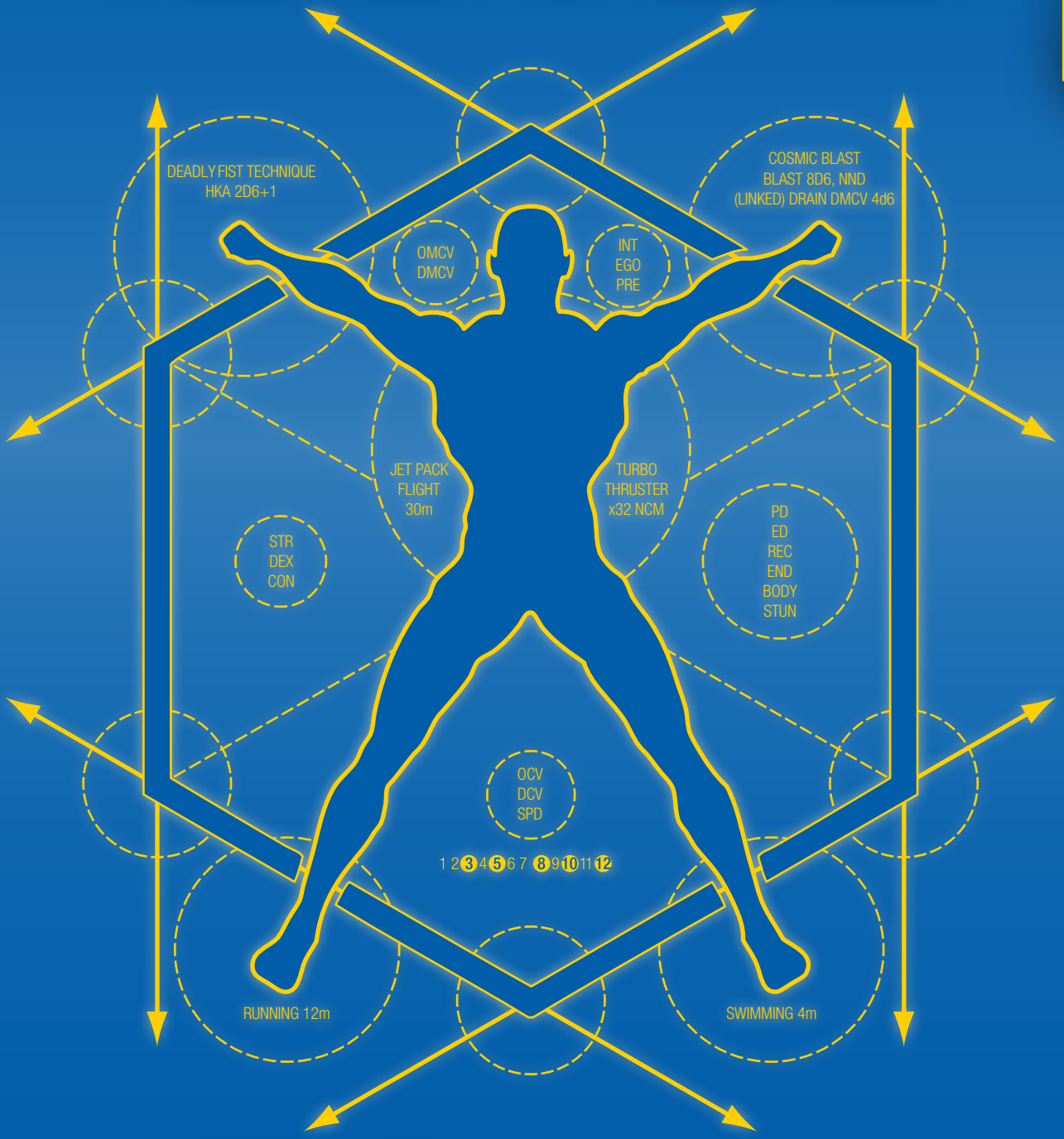
THE HERO SYSTEM
ADVANCED
PLAYER'S GUIDE

HERO SYSTEM
SIXTH EDITION



STEVEN S. LONG

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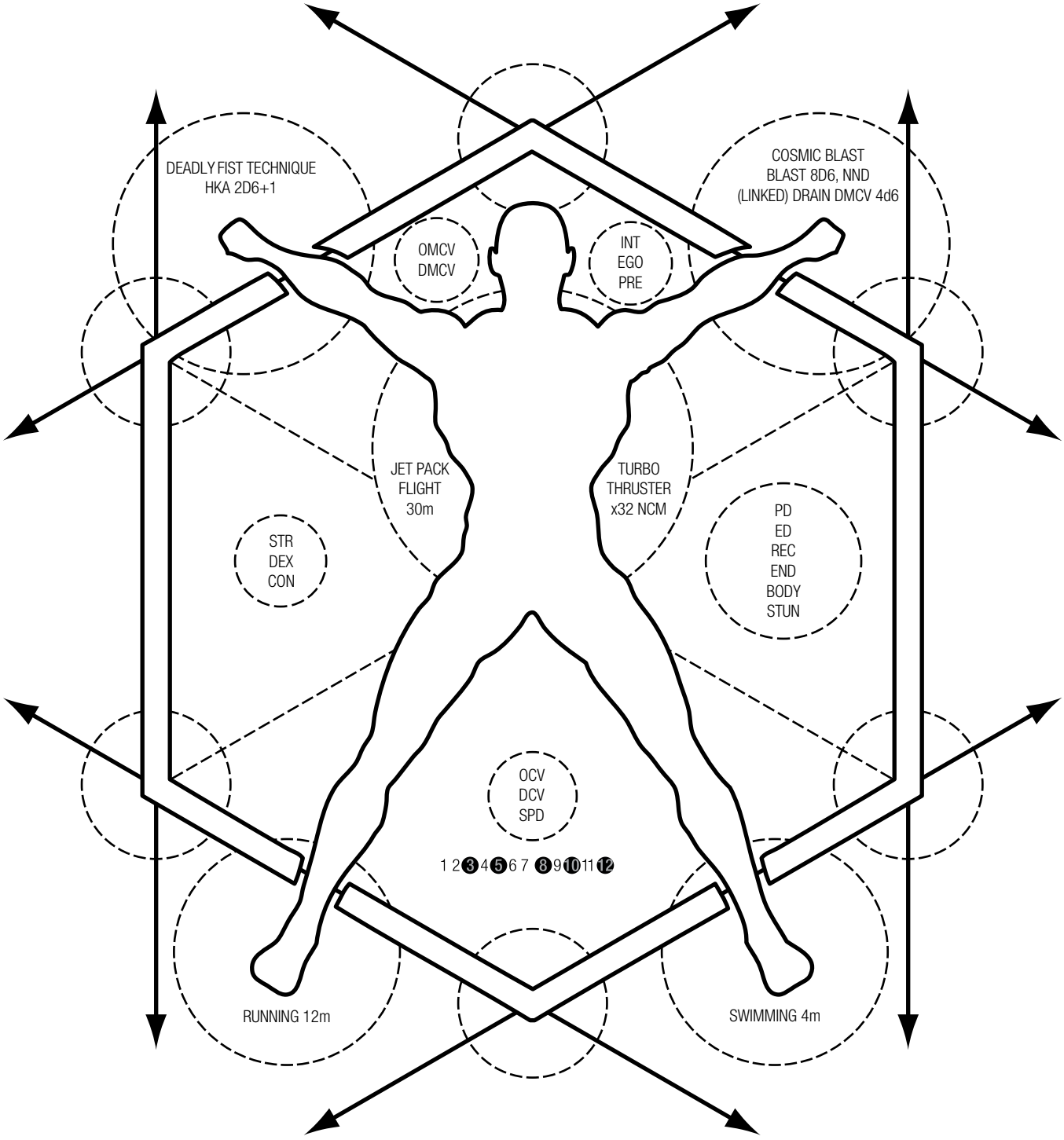

THE HERO SYSTEM
ADVANCED PLAYER'S GUIDE

WRITING AND DESIGN

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DEDICATION

To all the *HERO System* fans
out there, who can always find
a creative use for another rule.

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INTRODUCTION

The *HERO System 6th Edition* rulebook contains plenty of rules... but for some campaigns, even that many's not enough! The *HERO System Advanced Player's Guide* is for just such games — ones where the GM and players want a more detailed rule for some specific aspect of play, where the gaming group enjoys trying out variant and optional rules, or where the GM wants to take a different approach to some part of the *HERO System* to suit the game he has in mind.

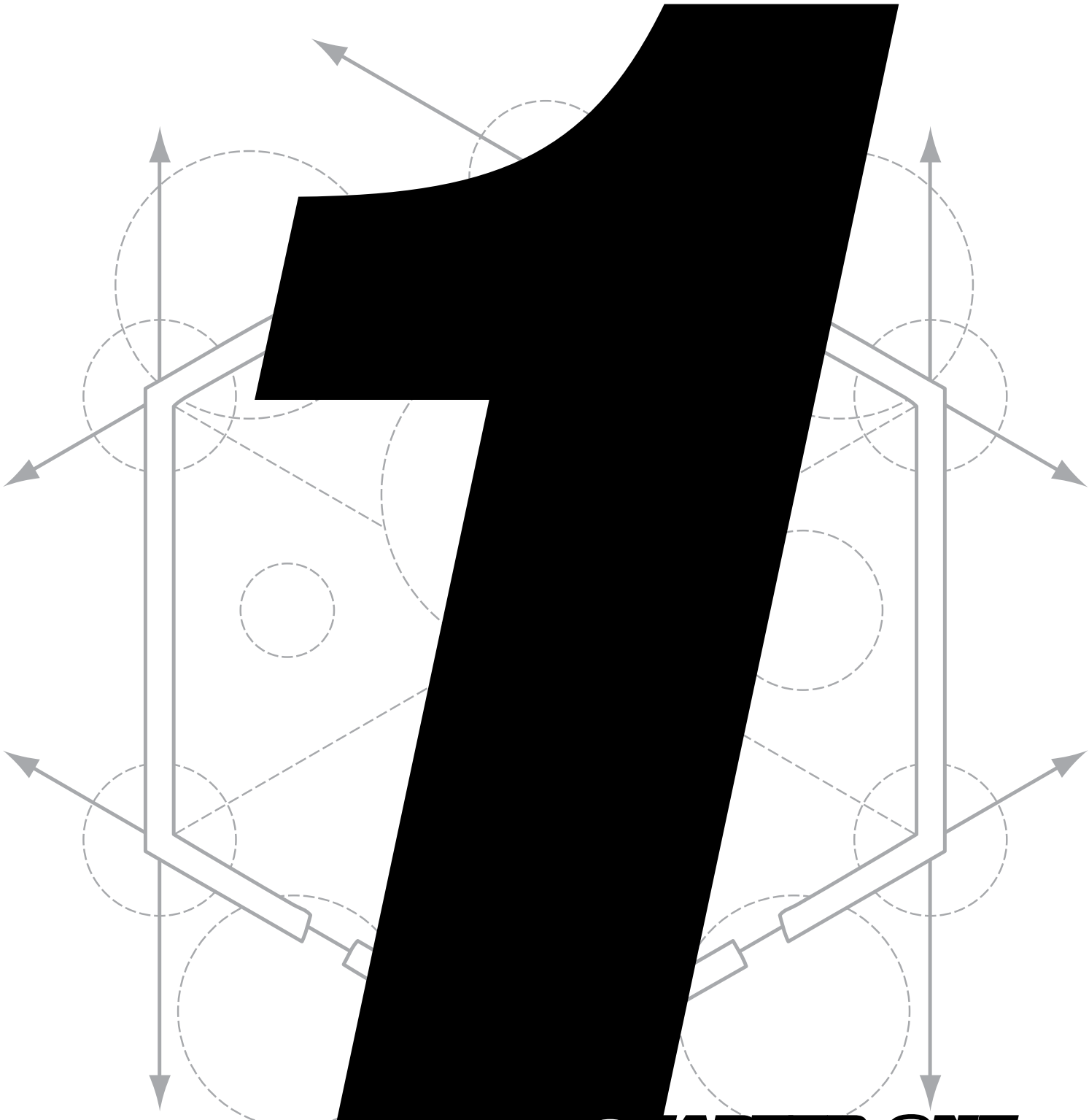
The "APG" is divided into chapters based on different game elements of the *HERO System.*

- Chapter One, *Characteristics,* has expanded and optional rules for STR, SPD, and many other Characteristics. If you want more details about characters' ability to lift heavy objects or making Power Defense a Characteristic, this is where you'll find them.
- Chapter Two, *Skills, Perks, And Talents,* provides additional rules for those game elements. For example, it features more details on Skill combinations, optional rules for converting Language into an Intellect Skill, and more rules for Universal Translator.
- Chapter Three, *Powers,* is the largest in the book. Besides providing more rules for various Powers and Power categories, it includes some all-new Powers, such as the *Projection* option for Desolidification and the *Possession* Power.
- Chapter Four covers the Power Modifiers: Advantages, Limitations, and Power Frameworks. If you want more types of Area Of Effect, an optional Power Modifier for giving a power a proportional effect, or expanded possibilities for Requires A Roll, try this chapter.
- Chapter Five, *Complications,* covers the little hindrances and flaws that make a character's life so interesting. Among other things it has expanded rules for Accidental Change and Vulnerability.
- Chapter Six, *Combat,* delves into the *HERO System*'s combat rules. It includes possible changes to the Time Chart and the use of SPD, some new Combat Maneuvers, more Hit Location rules, and lots more.
- Chapters Seven and Eight cover the Environment and Equipment, respectively. They feature optional rules for falling and vehicle combat, rules for building fires, expansions of the STR Minimum concept, and lots more.

All of the new rules in the APG are *optional.* The GM's not required to use them if he doesn't want to, and should consider them carefully before allowing them in play. They may be just the thing for creating certain types of characters and creatures for your campaign... or they may cause serious game balance problems based on your style of play. Players should check with their GMs before using any APG rules to build characters.

ABBREVIATIONS

In this book, "6E1" refers to *The HERO System 6th Edition, Volume I: Character Creation.* "6E2" refers to *The HERO System 6th Edition, Volume II: Combat And Adventuring.* "APG" refers to this book itself. Thus, a reference to "6E1 212" means page 212 of *The HERO System 6th Edition, Volume I,* and one to "APG 18" means page 18 of this book.



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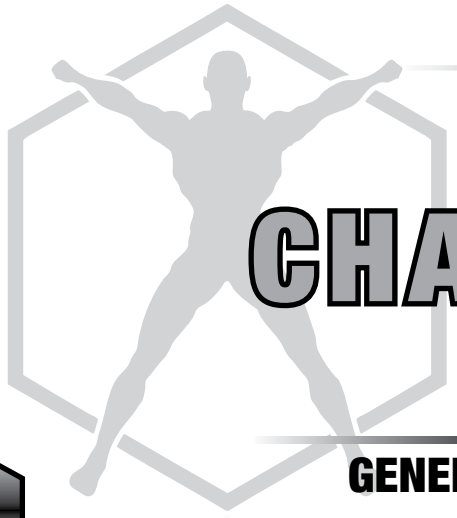
CHAPTER ONE

CHARACTERISTICS



CHARACTERISTICS

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GENERAL RULES

In some campaigns, particularly Heroic ones, you may find that characters tend to have the same Characteristics (often one ending in a 3 or 8 to take advantage of the "break point" for calculating Skill and Characteristic Rolls). If the GM wants to encourage characters to take "odd" values for Characteristics (such as STR 16 or INT 14), he should consider the following optional rules:

- if two characters engage in a Characteristic Roll Versus Characteristic Roll Contest and tie, the character with the highest Characteristic wins the Contest.
- if a character fails a Characteristic Roll by only 1, he gets to roll another 1d6. If the result on that 1d6 roll is less than or equal to the number of points of Characteristic he has above the nearest 3 or 8 breakpoint, he succeeds after all. For example, if a character has DEX 15, that's two points above the DEX 13 "break point" for a 12- roll. If he fails a DEX Roll by rolling a 13, he can roll 1d6. If he rolls a 1-2, he succeeds despite having failed the first roll.
- if two characters have the same DEX, instead of having them make DEX Rolls to determine who acts first, use some other Characteristic to break the tie. Some possibilities include: INT (the smartest or most observant character gets to act first); PRE (the most impressive or dramatic character gets to act first).

STRENGTH

The following additional or expanded rules apply to STR.

General Rules

INCREMENTAL STRENGTH

Sometimes characters want to buy their STR in increments. Typically they do this so they can Partially Limit the STR, or for similar reasons. In this situation, the default rule is that all the STR adds together before you calculate damage. The GM may change this rule in the interest of common sense, dramatic sense, special effects, or maintaining game balance.

Example: *A character has STR 13, and buys +12 STR as a Power. He does 5d6 ((12+13)/5 = 5) damage; he doesn't do 4½d6 damage ((13/5 = 2.5) + (12/5 = 2)).*

However, you should derive the END cost for STR on an incremental basis where possible, since different modifiers (such as Reduced Endurance or Increased Endurance Cost) can affect them differently.

ENDURANCE AND PARTIAL STRENGTH

If a character uses only part of his STR during a Phase, he only pays the END for the amount of STR he used. If he uses more of his STR later in that same Phase for non-attack purposes, he has to pay the rest of the END required. If he uses his STR to attack, he has to pay full END for the amount of STR used in each attack other than the first one made after a partial use of STR.

Example: *Grond has STR 90, so his Casual STR is 45. On his Phase in Segment 6, he uses his Casual STR to escape from an Entangle. This costs him 4 END. If that's all he does in that Phase, that's all the END he spends for his STR.*

However, if he then uses his full 90 STR to hit someone, he has to pay the remainder — 5 END — for a total of 9 END spent to use STR that Phase. If Grond decided to use only STR 60 to hit, he'd only pay another 2 END (for a total of 6); if he used just 45 STR to hit, he wouldn't have to pay any more END at all.

On the other hand, if Grond made a second 90 STR Punch in that same Phase (perhaps as part of a Multiple Attack), he'd pay the full 9 END for the second one.

ENDURANCE FOR STRENGTH IN OFF SEGMENTS

If a character uses his STR on a Segment in which he doesn't have a Phase — for example, if he's Grabbed in a Segment and immediately makes a Casual STR roll to see if the Grab affects him — he pays END for that STR in that Segment, just as he would if using that STR in one of his Phases. However, a character doesn't have to pay END for maintaining a STR-based attack (such as a Grab) during Segments in which he doesn't have a Phase.

Example: *Herculan has STR 40, SPD 6. An enemy Grabs him in Segment 5. Herculan immediately makes a Casual STR roll (STR 20) to see if the Grab affects him. This costs him 2 END. If he uses his STR again on his Phase in Segment 6, he pays the normal END cost for doing so; the END paid in Segment 5 doesn't "roll over to" his use of STR in Segment 6.*

REDUCED ENDURANCE

If a character wants to buy Reduced Endurance for his STR, he calculates the cost of the Advantage based on the value of the STR Characteristic — not just the points he paid for it, but for the entire value. For example, if Herculan wanted to buy Reduced Endurance (0 END; +½) on 40 STR (which cost him 30 Character Points), he would pay 20 Character Points (40 x (1 + ½) - 40).

Reduced Endurance purchased for a character's STR *does not* automatically apply to his forms of movement that require physical exertion (Running, Leaping, Swimming, and so forth). They still cost END at the normal rate; if a character wants to reduce their END cost, he must buy Reduced Endurance for them individually.

CHARGES

Sometimes a character purchases extra STR with the Limitation *Charges.* In that case, the extra STR doesn't cost END, but the character's standard STR costs END at the normal rate.

Lifting

The second most important ability STR provides a character is that it indicates his lifting capacity. The Expanded Strength Table lists the amount of weight a character can lift based on his STR. This represents the maximum amount of weight he can just manage to lift off the ground, stagger with for a step or two, then drop. (Similarly, it represents the maximum amount of weight he can drag or pull; given the definition of lifting capacity, a character must be able to lift an object to move it these ways.) He can easily carry or lift the weight which he can pick up with his Casual STR. (See below for other parameters.)

Regardless of a character's carrying capacity, carrying more than a certain amount of weight may encumber him (see 6E2 45). In some cases, a character can Push his STR and lift even more for brief periods (see 6E2 133).

ALTERING STR 0-4

To keep the rest of the STR Table consistent and dramatically reasonable, STRs 1-4 don't quite fit the lifting capacity progression in the rest of the table. If the GM wants a little more "granularity" at this very low end of the scale, he can change that part of the STR Table as shown in the accompanying Low-Value STR Table.

LOW-VALUE STRENGTH TABLE

Strength	Lift (kg)	Damage	Example
0	8.0	—	Most HTH Combat weapons, most guns, shotput
1	16.0	—	Tavern bench
2	25.0	—	Full suitcase, TV set, bicycle
3	33.0	½d6	Coffee table
4	42.0	½d6	Caber (average)

ADJUSTING LIFTING CAPACITY FOR HEROIC GENRES

Unlike Superheroic campaigns, where it's not uncommon to find characters with 40, 50, 60, or higher STR, in Heroic campaigns nearly all characters fall into the STR 10-20 range. If the GM wants a little more "granularity" for STR, he can adopt the accompanying Heroic Campaign STR Table as a campaign standard. Note that the table doesn't change the amount of Normal Damage characters do in HTH combat (though you could easily do so by using the same damage for any given amount of lifting capacity from the standard STR Table; for example, making 25 STR do 4d6 instead of 5d6).

HEROIC CAMPAIGN STRENGTH TABLE

Strength	Lift (kg)	Damage	Example
0	0	—	—
1	3.2	—	Submachine gun, small wooden shield, helmet
2	6.4	—	Most HTH Combat weapons, most guns
3	12.5	½d6	Machine gun, suit of chainmail
4	19.0	½d6	Tavern bench
5	25.0	1d6	Human child, full suitcase, TV set, bicycle
8	38.0	1½d6	Small refrigerator, suit of plate armor
10	50.0	2d6	Adolescent human, recliner
13	75.0	2½d6	Brass bed, washing machine
15	100.0	3d6	Adult human
18	150.0	3½d6	Refrigerator
20	200.0	4d6	Two men, piano, motorcycle, boar
23	300.0	4½d6	Medium floor safe
25	400.0	5d6	Chariot, grizzly bear
28	600.0	5½d6	Sailboat, cow, horse
30	800.0	6d6	Sportscar, horse and rider

EXPANDED STRENGTH TABLE

STRENGTH	LIFT (KG)	DAMAGE	MODERN EXAMPLES	FANTASY EXAMPLES	SCIENCE FICTION EXAMPLES
0	0	—			
1	8	—	Most HTH weapons, most guns, shotput	Most HTH and ranged weapons, large metal shield	Most HTH and ranged weapons
2	16	—	Chair, desktop computer	Tavern bench	
3	25	½d6	Human child, full suitcase, TV set, bicycle		
4	38	½d6	Small refrigerator, coffee table, dishwasher	Suit of plate armor	
5	50	1d6	Adolescent human, recliner, light dining room table, caber (average)	Suit of plate barding	
6	58	1d6	Small grandfather clock, wall safe		
7	67	1d6	Chest of drawers, heavy dining room table, manhole cover (average)		
8	75	1½d6	Brass bed, loveseat, washing machine	Dwarf	
9	88	1½d6	Sofa, railroad tie		
10	100	2d6	Adult human, large grandfather clock, large wooden desk, small computer console	Man, elf	Human
11	117	2d6	Small floor safe, anvil (average)		
12	133	2d6	Large wooden bed, china hutch, side of beef		Heavyworlder man
13	150	2½d6	Refrigerator	Man in armor and equipment	
14	175	2½d6	Wooden armoire		
15	200	3d6	Piano, motorcycle, wooden wardrobe, large wooden bookshelf, large wooden computer desk set, manhole cover (large), medium computer console	Two men, wild boar, barrel of beer, python	Hoverscooter
16	233	3d6	Wooden entertainment center		
17	267	3d6			
18	300	3½d6	Medium floor safe	Two men in armor and equipment	
19	350	3½d6	Billiard table, football goalposts		
20	400	4d6	Large computer console	Chariot, Grizzly bear	Hoverbike
21	467	4d6			
22	533	4d6	Moose		
23	600	4½d6	Sailboat, cow	Sailboat, horse	
24	700	4½d6	Cropduster, small civilian helicopter, large floor safe		
25	800	5d6	Small trailer, sportscar	Horse and rider, large polar bear, stagecoach	
26	933	5d6	Liberty Bell		
27	1,067	5d6	B43 1-megaton nuclear bomb		
28	1,200	5½d6	Medium missile	Two horses	
29	1,400	5½d6			
30	1,600	6d6	Small car, large missile	Two horses and riders, catapult	Hovercar
31	1,867	6d6	Telephone pole (average wooden), stegosaurus		
32	2,133	6d6			
33	2,400	6½d6	Large civilian helicopter		
34	2,800	6½d6	Small military helicopter		
35	3,200	7d6	Truck, limousine	Small elephant	
36	3,733	7d6			
37	4,267	7d6	B53 9-megaton nuclear bomb		
38	4,800	7½d6	Large military helicopter		
39	5,600	7½d6			
40	6,400	8d6	Small jet, tank	Large elephant, small trebuchet	
41	7,467	8d6	Light jetfighter, tyrannosaurus rex		
42	8,533	8d6	Polaris A-1 missile		
43	9,600	8½d6	Business jet, CH-47D Chinook helicopter		
44	11 tons	8½d6	Triceratops		
45	12.5 tons	9d6	Jetfighter, subway car	Heavy trebuchet	
46	15 tons	9d6	Heavy jetfighter		
47	17 tons	9d6	Polaris A-3 missile		
48	19 tons	9½d6	Very small ICBM		
49	22 tons	9½d6	Infantry fighting vehicle		
50	25 tons	10d6	Frigate, airship	Small standing stone	Space tug
51	29 tons	10d6	Small tank, apatosaurus		
52	33 tons	10d6	Small ICBM		
53	37.5 tons	10½d6			
54	44 tons	10½d6	Olmec stone head		
55	50 tons	11d6	Bulldozer, main battle tank, Easter Island stone head, sperm whale	Large standing stone	Starcruiser
56	58 tons	11d6	Trident II missile		
57	67 tons	11d6	Dump truck, electro-diesel train car, jetliner		

STRENGTH	LIFT (KG)	DAMAGE	MODERN EXAMPLES	FANTASY EXAMPLES	SCIENCE FICTION EXAMPLES
58	75 tons	11½d6	Concorde		
59	88 tons	11½d6	B-52H Stratofortress, Stonehenge stone, Washington Monument, bank vault door		
60	100 tons	12d6	Space Shuttle (w/o booster rockets), blue whale, bulldozer	Two large standing stones	Starship
61	117 tons	12d6			
62	133 tons	12d6	Mir Space Station		
63	150 tons	12½d6	Titan II rocket		
64	175 tons	12½d6			
65	200 tons	13d6	Large ICBM, Spruce Goose, Statue of Liberty		Large starships
66	233 tons	13d6			
67	267 tons	13d6	Bank vault (entire, including door)		
68	300 tons	13½d6	Very large ICBM		
69	350 tons	13½d6			
70	400 tons	14d6	Trawler		Very large starship
71	467 tons	14d6			
72	533 tons	14d6	Redwood tree		
73	600 tons	14½d6			
74	700 tons	14½d6			
75	800 tons	15d6	Drilling rig		
76	933 tons	15d6			
77	1 kton	15d6			
78	1.2 ktons	15½d6	Sequoia tree		
79	1.4 ktons	15½d6			
80	1.6 ktons	16d6	Small bridge, freighter (unloaded)	Small stone bridge	
81	1.9 ktons	16d6			
82	2 ktons	16d6	Space Shuttle (with booster rockets)		
83	2.4 ktons	16½d6			
84	2.8 ktons	16½d6			
85	3.2 ktons	17d6	Freighter (loaded), Cape Hatteras Lighthouse	Large stone bridge	
86	3.7 ktons	17d6			
87	4.3 ktons	17d6			
88	4.8 ktons	17½d6			
89	5.6 ktons	17½d6	Small cruiser (unloaded)		
90	6.4 ktons	18d6	Destroyer (unloaded)	Enormous stone bridge	
91	7.5 ktons	18d6	Eiffel Tower, small cruiser (loaded)		
92	8.5 ktons	18d6			
93	9.6 ktons	18½d6	Destroyer (loaded), small submarine		
94	11 ktons	18½d6	Large cruiser (unloaded), small cruise ship		
95	12.5 ktons	19d6		Temple	
96	15 ktons	19d6			
97	17 ktons	19d6	Large cruiser (loaded)		
98	19 ktons	19½d6	Large submarine		
99	22 ktons	19½d6			
100	25 ktons	20d6	Large bridge	Castle	
105	50 ktons	21d6	St. Louis Gateway Arch, medium cruise ship		
110	100 ktons	22d6	Aircraft carrier (loaded), large cruise ship	Large castle	
115	200 ktons	23d6			
120	400 ktons	24d6	Empire State Building		
125	800 ktons	25d6	Golden Gate Bridge		
130	1.6 mtons	26d6			
135	3.2 mtons	27d6			
140	6.4 mtons	28d6	Great Pyramid of Giza (est.)		
145	12.5 mtons	29d6			
150	25 mtons	30d6	Small asteroid		
155	50 mtons	31d6			
160	100 mtons	32d6			
165	200 mtons	33d6			
170	400 mtons	34d6			
175	800 mtons	35d6			
180	1.6 gtons	36d6			
185	3.2 gtons	37d6			
190	6.4 gtons	38d6	Medium asteroid		
195	12.5 gtons	39d6			
200	25 gtons	40d6			

kton: kiloton (1,000 metric tons) • **mton:** megaton (1 million metric tons) • **gton:** gigaton (1 billion metric tons)

Lift: The maximum amount of weight the character can usually just manage to lift off the ground, stagger with for a step or two, then drop, in kilograms (1 kg = 2.2 pounds) or metric tons. This assumes a solid lifting surface; see text for various modifiers.

Damage: Normal Damage in HTH Combat

Examples: Where necessary, examples are typically rounded up to the next highest rating of lifting capacity.

"I'M AS STRONG AS TEN MEN!"

It's not uncommon in some genres for characters to define their high STR as representing being as strong as some number of men. For example, a Golden Age superhero might have the ability to make himself "as strong as ten men!," or a Potion Of Threefold Strength in a *Fantasy Hero* game might make the imbiber as strong as three men.

In *HERO System* terms, to determine the lifting capacity of a group of people, you combine their lifting capacities from STR and then use that total to determine a "group STR" for them. Following that method, here's how strong various groups of men are (assuming they all have 10 STR):

- 2 men = 15 STR
- 3 men = 18 STR
- 4 men = 20 STR
- 5 men = 21 STR
- 10 men = 26 STR
- 15 men = 29 STR
- 20 men = 31 STR
- 25 men = 33 STR
- 30 men = 34 STR
- 40 men = 36 STR
- 50 men = 38 STR
- 100 men = 43 STR

LIFTING MODIFIERS

Numerous conditions can affect a character's lifting capacity. The most important of these is how many hands he uses: if a character lifts with one hand (or half or less of his manipulatory limbs), he's at -5 STR for lifting purposes — in other words, he's only got half of his normal lifting capacity. The accompanying table lists other suggested modifiers, based on the nature of the object lifted and other circumstances; the GM may apply them as he sees fit.

LIFTING MODIFIERS

Circumstance	Modifier
Using only one hand (or half or less of character's manipulatory limbs	-5 STR (*i.e.,* half lifting capacity)
Nature of object lifted	
Weight shifts frequently	-1 to -10 STR
Object is bulky or poorly balanced	-1 to -10 STR
Grip	
Good grip	-0 STR
Poor grip	-3 to -10 STR
Very poor grip	-10 to -20 STR (or worse)
Lifting surface	
Solid/strong surface	-0 STR
Weak surface	-5 to -10 STR
Very weak surface	-10 to -20 STR (or worse)
Character's balance	
Character is well-balanced	-0 STR
Character is slightly off balance	-3 to -5 STR
Character is severely off balance	-5 to -10 STR
Character is completely off balance	-10 to -20 STR (or worse)

Surface: The solidity/strength required of the surface on which a character's standing can vary depending on what he's lifting — the heavier the object, the more stable and solid the surface needs to be to support him.

Balance: The GM can also use "balance" factors to represent poor footing or like circumstances — any environmental condition (other than surface solidity) that might prevent the character from exerting his full STR. If appropriate, the GM may have the character make a DEX Roll to determine how well balanced or "planted" he is. (Similarly, he may require a DEX Roll to determine how good a grip the character has on an object.)

OPTIONAL LIFTING PARAMETERS

At the GM's discretion, the following optional parameters for other forms of lifting apply:

- **Bench Press** (lying down, lifting object to the full extent of one's arms): 75% of the character's full lifting capacity
- **Clean And Jerk** (lifting a weight from the floor to one's chest in one movement, then lifting it to a full arms' extension over one's head in a second movement and holding it there motionless until allowed to release it): 50% of the character's full lifting capacity
- **Dead Lift** (using the legs and back to lift a weight from floor to hip level): 90% of the character's full lifting capacity
- **Leg Press** (using a special type of fitness machine to lift with one's legs): Double the character's full lifting capacity (*i.e.,* use +5 STR to determine his lifting capability).
- **Snatch** (in a single movement, lifting a weight from the floor to a full arms' extension over one's head, then holding it there motionless until allowed to release it): 40% of the character's full lifting capacity

For example, a character with STR 40 can lift a maximum of 6,400 kg — that's as much as he can barely get off the ground and stagger with for a step or two. Using these optional rules, he can bench press 4,800 kg, clean and jerk 3,200 kg, dead lift 5,760 kg, leg press 12,500 kg, and snatch 2,560 kg — any one of which puts him thousands of kilograms ahead of the real world's strongest people.

Realistic Uses Of Strength

As with the rest of the *HERO System,* the rules for STR are designed with "dramatic realism" and ease of play as the primary considerations, not true "realism." Here are some STR rules for games where the GM prefers to be more "realistic."

REALISTIC THROWING

Speaking "realistically," the Throwing Table (6E2 81) short-changes high-STR characters when it comes to Throwing for distance. The two accompanying Realistic Throwing Tables present a more "realistic" picture of high-STR throwing distances, based on the force a character of a given STR can exert. The first table shows how heavy an object a character with a given STR 40-100 can throw 1,000 feet (305m), 1 Mile (1,609m), 10 Miles (16,090m), and into the orbit of Earth (escape velocity). The second table shows how far a character of a given STR can throw a given weight. Formulae are provided for calculating other STRs and weights.

Obviously, these "realistic" throwing rules potentially create enormous game balance problems. They have a lot of fun, dramatic uses, such as a brick throwing a nuclear bomb far enough away from inhabited areas that it doesn't

hurt anyone. But if a character can easily throw his foes into orbit (or even just a few miles), he can end a combat or crisis situation in a few short seconds. To compensate for this, GMs who want to use these rules should consider creating a *Long-Range Throw* Combat Maneuver. This maneuver allows bricks to access the realistic throwing rules, but it entails the same penalty as a Haymaker: a Long-Range Throw requires an Extra Segment to execute on a Grabbed target, and puts the brick at -5 DCV.

Whether the GM adopts the Long-Range Throw rule (or some similar rule), when characters use the "realistic" throwing rules, standard rules for Throws, including damage done, and the penalties for range, balance, and aerodynamicity, apply.

REALISTIC LIFTING

"Realistically," a lot of the large objects bricks tend to lift wouldn't remain in one piece during the process — they'd snap in two, or break into pieces, because they can't support their own weight when picked up off the ground. If the GM wants to simulate this in game terms, here are some simple rules for doing so.

First, the GM should determine the weight of the object. Since he has to do this anyway to figure out if the brick can lift it in the first place, that shouldn't prove too difficult a task. Once he knows the weight, he should consult the Expanded Strength Chart to determine the minimum STR needed to lift it.

REALISTIC THROWING TABLE I

STR	Lift	1,000 feet (305m)	1 Mile (1,609m)	10 Miles (16,090m)	Orbital
40	6.4 tons	1.2 tons	502 kg	159 kg	—
45	12.5 tons	2.3 tons	980 kg	310 kg	—
50	25 tons	4.5 tons	2 tons	620 kg	22 kg
55	50 tons	9 tons	3.9 tons	1.2 tons	45 kg
60	100 tons	18 tons	7.8 tons	2.5 tons	89 kg
65	200 tons	36 tons	16 tons	5 tons	179 kg
70	400 tons	73 tons	31 tons	10 tons	357 kg
75	800 tons	145 tons	63 tons	20 tons	714 kg
80	1.6 ktons	290 tons	125 tons	40 tons	1.4 tons
85	3.2 ktons	581 tons	251 tons	79 tons	2.9 tons
90	6.4 ktons	1.2 ktons	502 tons	159 tons	5.7 tons
95	12.5 ktons	2.3 ktons	980 tons	310 tons	11 tons
100	25 ktons	4.5 ktons	2 ktons	620 tons	22 tons

To find the the mass a character can throw for each of these distances for other STR ratings, divide the maximum amount the character can lift by the following numbers:

5.5 for 1,000 feet
12.75 for 1 Mile
40.3 for 10 Miles
1,120 for Orbital (escape velocity)

These calculations assume a one second application of force and a 45 degree angle throw, and do not take air friction into account.

REALISTIC THROWING TABLE II

STR	Lift	100 Kg	1 Ton	5 Tons	10 Tons	50 Tons	100 Tons
40	6.4 tons	40,960	410	16	—	—	—
45	12.5 tons	156,250	1,562	62	16	—	—
50	25 tons	625,000	6,250	250	62	—	—
55	50 tons	2.5 mil	25,000	1,000	250	—	—
60	100 tons	10 mil	100,000	4,000	1,000	40	—
65	200 tons	40 mil	400,000	16,000	4,000	160	40
70	400 tons	160 mil	1.6 mil	64,000	16,000	640	160
75	800 tons	640 mil	6.4 mil	256,000	64,000	2,560	640
80	1.6 ktons	2.6 bil	25.6 mil	1 mil	256,000	10,240	2,560
85	3.2 ktons	10 bil	102.4 mil	4.10 mil	1 mil	40,960	10.240
90	6.4 ktons	40 bil	4.10 bil	16.4 mil	4.10 mil	1.64 mil	40,960
95	12.5 ktons	156 bil	1.56 bil	62 mil	15.6 mil	625,000	156,250
100	25 ktons	620 bil	6.2 bil	250 mil	62 mil	2.5 mil	625,000

Distances listed are in meters. To find the the distance a character can throw each of these weights for other STR ratings, divide the maximum amount the character can lift by the following numbers:

1. Take the maximum mass the character can left.
2. Divide by the mass the character wants to throw.
3. Square the result of Step 2.
4. Multiply by 5 to find the maximum throwing distance in hexes (or multiply by 10 for meters).

Basically, each +5 STR quadruples the maximum throwing distance for a given mass, and each doubling of mass quarters the throwing distance.

These calculations assume a one second application of force and a 45 degree angle throw, and do not take air fiction into account.

WEIGHTLIFTING RECORDS

Due to the plethora of organizations for weightlifters and weightlifting, the numerous categories (based on body weight, age, and gender) for weightlifting, and other considerations, determining real-world records for weightlifting sometimes proves difficult. According to the standards of the International Weightlifting Federation, the following records apply for the over-110 kg body weight category for men as of 2009:

Snatch: 216.0 kg

Clean And Jerk: 266.0 kg (the "world standard")

Typically, the best male weightlifters in the world can lift about 2.5 times their own body weight in the snatch, and as much as three times their own body weight in the clean and jerk.

The comparative totals for the strongest women's category, over-75 kg, are a snatch lift of 140 kg and a clean and jerk of 186 kg.

Second, he has to determine the object's PD and BODY based on the materials it's built with, its size, and other factors.

Third, for each Segment the brick holds the object off the ground (beginning in the Phase when he picks it up), the GM should apply the STR damage from the STR needed to lift it to the object. If the object takes any BODY damage beyond its PD, it starts to crack and break. The GM can determine just how badly it breaks, and whether any pieces fall off, by comparing how much BODY damage it takes to its overall BODY. Then he can apply common sense and dramatic sense to figure out how the object breaks, and what happens. For instance, if a building with 100 BODY takes 10 BODY, then it's 10% damaged. Depending on the situation, that may mean that the outermost 10% of its length falls off, that it's suffered 10% damage but remains in one shape, or that the outermost 90% falls off, leaving the brick holding a 10%-sized chunk.

HURTING YOURSELF WITH HIGH STRENGTH

"Realistically," a character with high STR doesn't necessarily have a body that can withstand the use of that STR. When he really exerts himself, he might cause himself injury. As an optional rule, the GM can establish a threshold beyond which exerting STR can hurt the character using that STR. If the character uses STR above the threshold, he takes damage (and no defense applies to reduce that damage).

Typically, the threshold depends on the character's STR in comparison to his PD — PD in this case reflects how well the character's body is built to withstand the use of his own STR. Possible thresholds include:

- if the dice of STR damage exceeds the character's PD
- if the dice of STR damage exceeds some multiple of the character's PD (such as 2 x PD, or 3 x PD)

For lifting or throwing, which don't involve rolling any dice, divide the STR used by 5 and compare that to the character's PD. Obviously, the lower the threshold, the more characters will restrict themselves from using high STR unless they absolutely have to.

The character takes 1d6 damage for each die of damage (or STR/5) done beyond the threshold. This represents muscle strain, torn tendons and ligaments, internal injuries, and similar injuries. He gets no defense against this damage.

Example: *The GM establishes a "frail brick" threshold of 2 x PD. Belgarn the Alchemist (PD 5) uses a Potion Of Gigantic Strength to increase his normal 10 STR to 40 STR. That means he does 8d6 damage. But since his PD is only 5, he takes (8 - 5 =) 3d6 damage every time he uses his full STR in combat... and he gets no defense against that damage! If he used 30 STR to lift something, he would take ((30/5) - 5 =) 1d6 damage.*

DEXTERITY

Dexterity is a bit unusual in that it costs 2 Character Points per point, whereas the other Characteristics it's grouped with on the character sheet all cost 1 Character Point per point. If you don't mind adding a line to your character sheet, you can split DEX into two Characteristics — Agility and Reaction — each costing 1 Character Point per point.

Agility (AGI) represents a character's general nimbleness, adroitness, and dexterousness. It's the basis for the character's "DEX Roll" (Reaction doesn't normally have a Characteristic Roll) and for most DEX-Based Skills (aptly named "Agility Skills").

Reaction (REA) represents a character's reaction time and related attributes. It's the basis for a character's initiative (when his Phase occurs in a Segment, and whether he goes before or after someone else). That's nearly all it does — determine when the character acts in relation to other characters. However, the GM can use a REA Roll to break initiative ties during combat, and REA also provides the roll for the Skills *Fast Draw* and *Teamwork*.

PRESENCE

One of PRE's most important functions is that it allows characters to make Presence Attacks, which not only add a lot of flavor and fun to the game but can be very combat-effective in the right circumstances. To add a little "oomph" to them, characters sometimes want to buy Advantages for their Presence Attacks, such as Does Knockback.

By definition any Advantage bought for a Presence Attack is a naked Advantage, and using it requires an Attack Action. Therefore, a character can't use it with a Presence Attack made after making some other attack (unless, of course, he buys it with an appropriate form of the *Trigger* Advantage).

DEFENSES

The standard *HERO System* dichotomy of Physical Defense and Energy Defense works well for nearly all campaigns. But for some types of games the GM may want to change what defenses a character has. Some possibilities include:

ONE DEFENSE

In campaign settings where one category of attack (usually Energy) tends to be rare, it may be simpler (and cheaper) for the GM just to collapse PD and ED into one Characteristic, *Defense* (DEF), that applies against both Physical and Energy damage. DEF typically has a Base Value of 2 and costs 1 Character Point per point, but the GM should set things to suit his campaign.

MENTAL DEFENSE AS A CHARACTERISTIC

In some campaigns, particularly psionics campaigns or games in settings featuring lots of Mental Powers, the GM may want to make Mental Defense a Characteristic. It has a Base Value of 2 and costs 1 Character Point per point. This ensures that everyone has at least *some* resistance to mental attacks.

POWER DEFENSE AS A CHARACTERISTIC

Similarly, in some games the GM may want all characters to have at least a little resistance to attacks like Drains and Transforms. For example, in a world where there's lots of magic, perhaps everyone's evolved a certain innate level of resistance to magical attacks. Power Defense as a Characteristic has a Base Value of 2 and costs 1 Character Point per point.

ALTERING THE DEFENSE CATEGORIES

In some campaigns the GM may want to create additional categories of damage besides Physical, Energy, and Mental. (This may go hand in hand with combining PD and ED into DEF, and perhaps renaming DEF to something more campaign-appropriate.) Some possible other categories include:

- A*rcane Defense* ("AD"), which protects against any magical attack. In essence, AD is a defense defined by the "special effect" that it protects against, rather than the type of damage. It protects the character against Physical attacks, Energy attacks, Mental attacks, attacks that work against Flash Defense, and attacks that work against Power Defense. In campaigns that use AD, regular PD, ED, and other defenses typically offer no protection against magical attacks at all. However, using AD may significantly weaken magical Flashes, Drains, and the like unless it costs more than regular PD and ED.
- M*ystical Defense* ("MD"), which combines Mental Defense and Power Defense. Campaigns that use MD typically collapse PD and ED into a single category, often named P*hysical,* that protects against all attacks that cause physical injury regardless of whether they use Physical or Energy attacks to do it.
- S*piritual Defense* ("SD"), which protects against attacks that directly assault the spirit or soul (such as Transforms of the Spirit aspect, or certain types of Necromancy spells). Unless such attacks are common in the setting, SD should typically be much cheaper than other Defense Characteristics.

SPEED

Here are some additional rules and options pertaining to SPD.

LIMITED SPD

When a character buys Limited SPD, it's up to the GM to determine which Segments the additional Phases occur in. If the character's two SPDs — unrestricted and Limited — have no Phases in common, then the Limited SPD Phases simply occur in their regular Segments. If the two SPDs have some Phases in common, the GM has to decide in which Segments the Limited SPD Phases occur.

Example: *Rocket is SPD 4, but has +4 SPD, Only To Move (-1). His standard Phases from his un-Limited SPD are 3, 6, 9, and 12. The +4 SPD would ordinarily give him SPD 8, which has Phases on Segments 2, 3, 5, 6, 8, 9, 11, and 12. Since none of the four "extra" Phases coincide with his standard Phases, determining when he can use his Limited SPD is easy: in Segments 2, 5, 8, and 11, Rocket can only move.*

The Crimson Comet is SPD 5, but has bought +3 SPD, Only To Attack (-½). His standard Phases from his un-Limited SPD are 3, 5, 8, 10, and 12. The +3 SPD would ordinarily give him SPD 8, which has Phases on Segments 2, 3, 5, 6, 8, 9, 11, and 12. Thus, his "two SPDs" have four Phases in common: 3, 5, 8, and 12. That leaves Segments 2, 6, 9, and 11 when his +3 Limited SPD Phases could occur. The GM decides the Crimson Comet gets his attacks-only Phases on 2, 6, and 11.

A character who buys Limited extra SPD must declare at the beginning of the Turn that he's using his extra SPD that Turn. He cannot activate it later in the Turn. The GM may, of course, permit him to declare it later, but if so must address any rules ramifications that occur.

A character who buys Limited extra SPD cannot "turn off" that extra SPD partway through a Turn without the GM's permission. By definition, if a character activates Limited extra SPD, that SPD has to remain "in effect" for an entire Turn, since SPD's effectiveness is "measured" on a per-Turn basis. A character can't take advantage of gaining extra Phases, then "turn off" the extra SPD late in the Turn to take advantage of not having it. If he wants to de-activate the extra SPD, he has to do that prior to the next Turn beginning so he gains no benefit from it in that Turn.

If a character purchases SPD that Costs Endurance, he must pay the END cost every Phase, not just on the extra Phases he gains from the Power. Therefore, he can't take Recoveries (other than the standard Post-Segment 12 Recovery) unless he de-activates the extra SPD, since his SPD costs him END every Phase. If he gets Stunned in one of his "extra" Phases (the Phases added by the Limited SPD) before his Phase occurs in the Segment, he still gets to recover

from being Stunned when his Phase occurs in that Segment, since the power doesn't deactivate until the end of the Segment.

If a character buys extra SPD with Charges, he spends 1 Charge for every extra Phase he uses from the SPD-bought-as-Power. He can buy Continuing Charges, Fuel Charges, or the like as desired (or as the GM permits). In any event, he's subject to the standard rules for using Limited SPD.

If a character has Limited SPD, he has to pay END on every Phase for every Constant Power he wants to maintain, whether the Phase comes from his unrestricted SPD or his Limited SPD. If he doesn't pay the END, the power ceases to function. The fact that a Phase comes from Limited SPD doesn't exempt the character from having to pay END to maintain his Constant Powers.

If a character has extra SPD with Limitations, and he hasn't activated that power for a given Turn, he cannot Abort to activate it in mid-Turn. Using extra SPD doesn't qualify as a "defensive Action."

The GM may alter these rules in the interest of dramatic sense or game balance.

MENTAL SPD

In a campaign that focuses on Mental Powers and related matters, perhaps characters have *Mental SPD* ("MSPD") in addition to their standard, physical, SPD. Regular SPD can only be used for physical actions, and MSPD that can only be used for mental actions. MSPD has a Base Value of 2; every +1 MSPD costs 10 Character Points, and the same rules for buying additional SPD apply to buying additional MSPD.

If a character has a SPD Phase and an MSPD Phase in the same Segment, he can take *both* Actions. He gets a full Phase's worth of physical actions (possibly including making a physical attack) and a full Phases's worth of mental actions (possibly including making a mental attack). This can result in his getting two attacks in a single Segment, provided one is physical and one mental. Making a physical attack ends the character's SPD Phase as usual, but doesn't affect his MSPD Phase, and vice-versa.

SPD BEYOND 12

As noted on 6E1 45, the maximum SPD that has any additional effect on a character's Phases and Actions is 12 — SPD 13 and higher don't grant any extra Phases or Actions, they just help the character resist Drain SPD attacks and the like. Despite this rule, GMs running high-powered campaigns (such as Galactic Champions games) may want to allow SPDs of 13 or higher as an option. In that case, the following rules apply.

Points of SPD above 12 still cost 10 Character Points per point, unless the GM rules otherwise.

SPDs of 13 and higher grant a character extra Phases in certain Segments — the same Segments that SPDs 1-12 grant. In other words, distribute the remaining actions throughout the Turn according to the standard Speed Chart — just subtract 12 from the character's SPD to figure out which Segments he gets an extra Phase in. For example, SPD 18 gets one Phase in Segments 1, 3, 5, 7, 9, and 11, and two Phases in Segments 2, 4, 6, 8, 10, and 12 — the Phases that SPD 6 (18 minus 12) gets. Thus, a character with SPD 24 would get two Phases every Segment. In the event a character's SPD exceeds 24, apply the same rule, giving the character three, four, or more Phases in some Segments.

When a character has two (or more) Phases in a single Segment, each qualifies as a full Phase. A character with two Phases could perform two Full Phase Actions, four Half Phase Actions, or one Full Phase and two Half Phase Actions. As always, an Attack Action ends a Phase, but if the character makes an Attack Action with his first Phase in the Segment, he still gets his entire second Phase. Thus, a character with two Phases could attack with his first Phase, then use his second Phase to make a Full Move away from the battlefield so his enemy wouldn't have the chance to counterattack.

If a character has multiple Phases in a Segment, both Phases are performed on his DEX — he takes his first Phase on his DEX in the Segment, and when that's done he immediately takes his second Phase (and so on if he has more Phases). He doesn't have to "wait" between Phases. (Alternately, GMs who want to "slow down" such characters a little bit may want to divide their Phases over the DEX order as evenly as possible. For example, if a character with DEX 30 has three Phases in a Segment, he'd get them on DEX 30, DEX 20, and DEX 10. If the GM uses this rule, he should decide how it affects Holding an Action.)

Because a character loses a Held Action if he Holds it until a Segment when he has a Phase (as discussed on 6E2 20), a character with SPD 13 or higher cannot hold any of his Phases until a later Segment. However, he may hold any or all of his Actions in a Phase until later in that Segment.

A character with multiple Phases in a Segment may not take a Recovery with any of them if he uses any of them to perform Actions — having multiple Phases doesn't change the rule that a character cannot Recover if he does *anything* in a Phase (including Holding an Action). Thus, if a character with multiple Phases wants to take a Recovery, he has to take a Recovery with *all* of his Phases in that Segment. All such Recoveries occur at the very end of the Segment, as usual.

Before allowing SPDs higher than 12, GMs should be aware that they have a significant potential to cause game problems. First, the more Actions characters can take in combat, the longer combats tend to take. Second, allowing one character a lot more Actions than others may unbalance the game in his favor, giving him too much "screen time" at the expense of the other characters.

SECONDARY SPD

Alternatively or in addition to allowing characters to buy SPDs higher than 12, the GM might consider *Secondary SPD.* Basically this means allowing a character to have *two* SPD Characteristics — the regular one, and a second one usable only for some Limited purpose.

The character's primary SPD Characteristic works just like normal: it starts with a Base Value of 2, costs 10 Character Points per point, and so forth. The Phases it provides can be used for anything. Any character who wants to can also buy *secondary SPD.* Secondary SPD starts with a Base Value of 0 and costs 10 Character Points per point. It provides Phases on the standard Segments for its value, even if the character already has a normal Phase from his primary SPD. However, it it must have some Limitation applied to it to restrict what the Phases it provides can be used for. See *Limited SPD,* above, for some suggestions.

If a character's primary and secondary SPD give him two Phases in the same Segment, the Actions taken with a character's primary Phases (which must be taken first) do not affect the Actions he can take with his secondary Phases (which are always taken last). For example, a character with both a primary Phase and a secondary Phase in Segment 6 could use his primary Phase to make a Full Move or to attack. He could then still use his secondary Full Phase for whatever types of Actions it allows. For example, if it's *Only To Attack* he could make another attack (despite the fact that he's already attacked once in this Segment); if it's *Only To Take Recoveries,* he could take a Recovery (even though he already acted this Phase).

Example: *Kinetik has SPD 8 (which gives him Phases in Segments 2, 3, 5, 6, 8, 9, 11, and 12). Because he acts so often he uses up a lot of END. To help alleviate the problem of running out of END, he buys 4 Secondary SPD,* Only To Recover *(-1) (40 Active Points; total cost 20 points). Since SPD 4 provides Phases in Segments 3, 6, 9, and 12, on those four Segments he ends up with two Full Phases — one primary, one secondary. In his primary Phase he can take any Actions he wants: attacking, defending, moving, taking Recoveries, using Skills, and so on. In his secondary Phase he can only take Recoveries. But he can do so despite the fact he's already acted in his primary Phase — the two Phases are "separate," so what he does in the primary Phase doesn't stop him from using his secondary Phase. If he's really tired, he could even take a Recovery with both Phases!*

BODY

The following rules apply to negatively Adjusting BODY:

DRAIN

A character who has positive BODY and is reduced into negative BODY by Drain loses more BODY in Post-Segment 12 (just like any other character injured into the negative BODY range). However, the loss of BODY stops if the effects of the Adjustment Power fade and the fading at any time returns him to positive BODY. (He does not, however, regain the BODY he lost to "bleeding" while in the negatives.)

If a character is in the negative BODY range due to a wound, and an Adjustment Power adds to that effect, he keeps bleeding from the wound on Post-Segment 12 and eventually dies (or dies immediately if the Adjustment Power takes him to negative his starting BODY).

If a character is in the negative BODY range due to a wound, and an Adjustment Power takes him to positive BODY, he stops Post-Segment 12 bleeding from the wound as long as the Adjustment Power keeps his BODY score positive. When the fading of the Adjustment Power returns him to negative BODY, he starts bleeding again in Post-Segment 12.

SUPPRESS

A character who has positive BODY and is Suppressed into negative BODY doesn't lose more BODY in Post-Segment 12.

If reduced to negative his BODY solely due to Suppress, a character "dies" for all intents and purposes, but comes back to life when the Suppress ceases to apply.

If a character is in negative BODY numbers due to a wound, and a Suppress adds to that effect, he keeps bleeding from the wound on Post-Segment 12 and will eventually die for real.

If a character has lost some BODY due to a wound, but not enough to put him in the negatives, and Suppress takes him into the negatives, he does not bleed on Post-Segment 12, and will "come back to life" after the Suppress is removed if it takes him to negative his BODY.

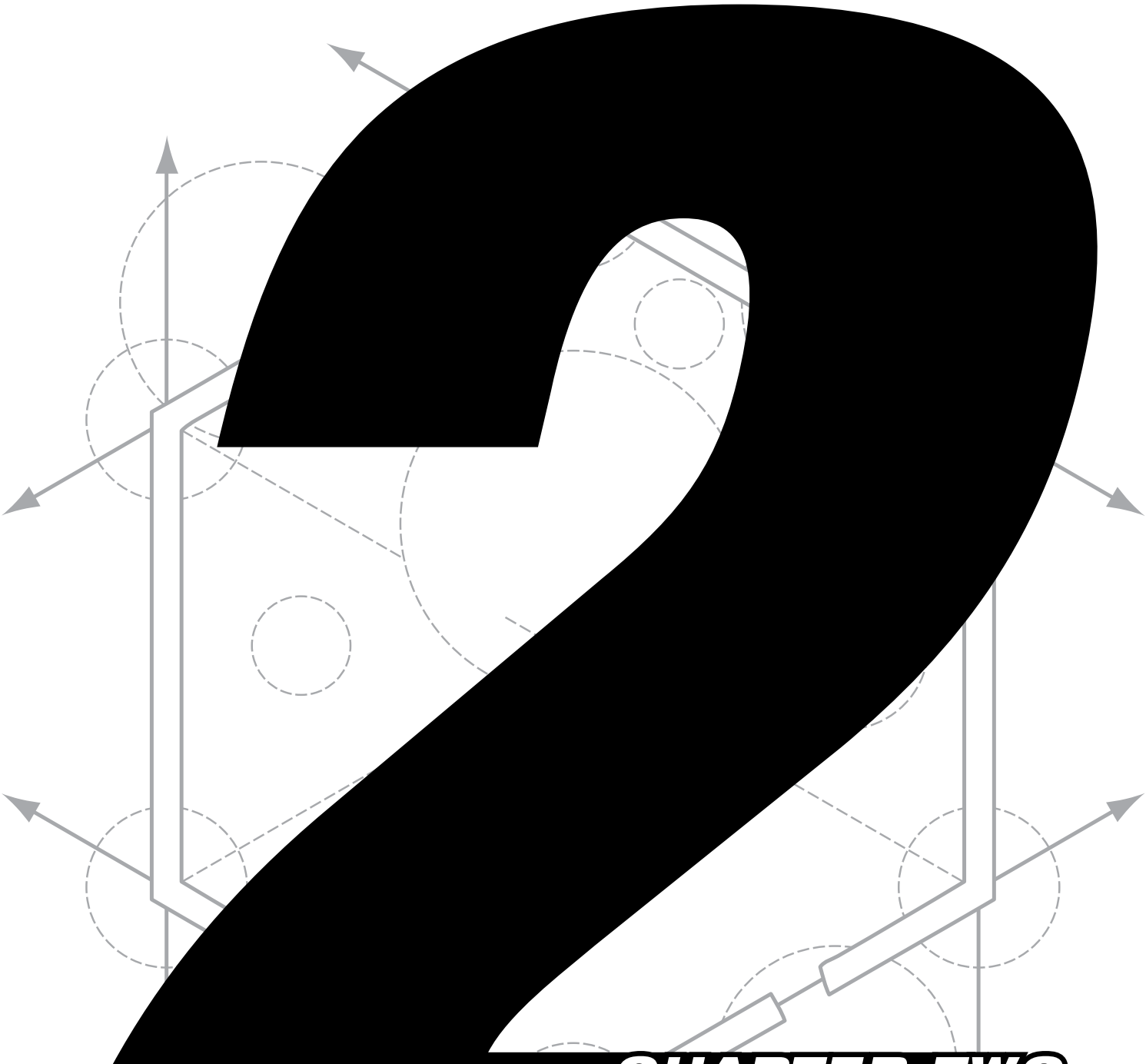
If a character's suffering from the effects of a Suppress BODY, he can Heal or Regenerate the lost BODY. Both Healing and Regeneration restore BODY lost to a Suppress BODY while the Suppress remains in effect — though of course the character maintaining the Suppress could hit the victim with another use of the Suppress BODY, forcing the victim to start Healing/Regenerating the additional lost BODY (if desired). However, if a character suffers a Suppress BODY that reduces him to negative his BODY (or lower), Healing/Regeneration Resurrection will not restore him to "life," because (a) the condition that "killed" the character remains in full effect, and (b) he's not truly dead, so Resurrection isn't applicable.

If a character Suppresses the BODY of an inanimate or unliving object, such as a Vehicle, a Base, a mailbox, or a rock, to 0, it crumbles to its component pieces or dust, just like with a Drain — but when the Suppress effect ceases to function, the object instantly re-assembles into its intact, working self. If someone takes part of the object away while the BODY is Suppressed, the GM has to determine the effects based on what's taken, how far away it's taken, and so forth.

CHARACTERISTIC MAXIMA

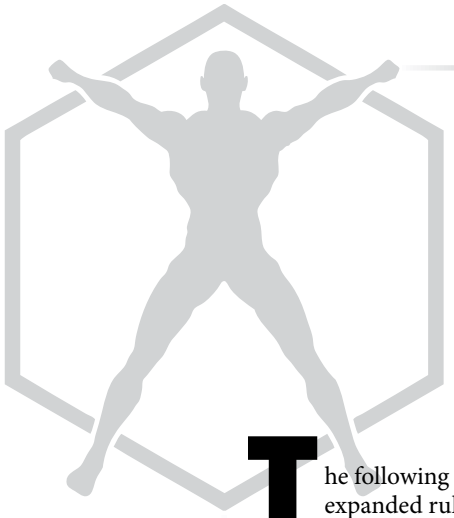
Some campaigns, such as many Fantasy Hero and Star Hero games, feature multiple sentient species or races. Some GMs like to vary the Characteristic Maxima for different races. This allows some races to buy Characteristics to a higher limit without doubling the cost, or lowers the doubling threshold to make it harder for some races to increase their Characteristics. For example, maybe dwarves can have CON up to 23 and elves can have INT up to 23 before the doubling takes effect, but elves can only have CON 16 before doubling sets in.

Since there's no guarantee how many points each character will spend on each Characteristic, there's no way to create a uniformly balanced method of applying this sort of change. Many GMs try to "balance" the effect by imposing an equal amount of "upgrades" and "downgrades" to each race, or by applying downgrades in some other proportion to upgrades. For example, if elves can have up to INT 23 without doubling (a possible savings of 3 points), then perhaps they can only have STR 17 before doubling (a possible extra cost of 3 points).



CHAPTER TWO

SKILLS, PERKS, AND TALENTS



SKILLS

The following additional, optional, or expanded rules apply to Skills.

GENERAL RULES

Sometimes a player or a GM wants to give a character a permanent penalty to one or more Skills. For example, a character might be so awkward and shy that he automatically suffers a -2 penalty on Interaction Skill rolls, or suffer from a "curse of palsy" that imposes a -1 penalty on all Agility Skills. In most cases the best way to do this is with a Complication. Which Complication is most appropriate depends on the special effects of the penalty. Physical Complication, Psychological Complication, and Social Complication are most commonly used, but they're not necessarily the only possibilities. For example, as noted on APG 149, Distinctive Features may entail some penalties to Interaction Skill rolls.

Skills involving some sort of physical activity (such as Acrobatics, Lockpicking, Mechanics, or Riding) are typically Obvious when used, unless that would contradict the nature or purpose of the Skill. (For example, neither Conversation or Stealth would work properly if they were Obvious when used, though the GM might rule that their use is sometimes Obvious to observers who aren't the target of the Skill.) Skills that are mental in nature, such as Deduction and Knowledge Skill, are Invisible, though the character's actions may make them Obvious (for example, if he diagrams his thoughts on a chalkboard as a way of analyzing a problem). Characters cannot apply the *Invisible Power Effects* Advantage to Skills unless the GM permits it. If he does permit it, any Skill Levels used with the Skill that are not also Invisible to the same Sense Groups automatically render the Skill perceivable when used.

Skills do not ordinarily cost END to use. However, "realistically" some of them, such as Climbing, could be considered tiring activities. Therefore GMs running "realistic" campaigns may choose to charge characters END for them. Typically this means END for the STR used (perhaps with some minimum cost, such as 2 END per Phase, and subject to the rules regarding STR and END). Even if the GM charges END for some Skills, characters cannot Push them.

With a few exceptions (such as Inventor, which only works in conjunction with some other Technological Skill), the *HERO System* doesn't require characters to buy any particular ability before buying a Skill. There's no rule that says, for example, that "only characters with INT 15 or higher can buy Demolitions" or "to buy Computer Programming, a character must first have Electronics with at least a 13- roll." However, there's no reason a GM couldn't create "Skill Prerequisite" rules for his own campaign if he wants to. For example, in a world with computers similar to those of early twenty-first century Earth, but where literacy is far less common, the GM might rule that characters cannot buy Computer Programming until they buy Literacy in at least one language.

Skill Combinations

If you're interested in using the "Skill combinations" suggestion on 6E1 54, the text box on APG 19 has an expanded list of possibilities. The GM sets the cost for each one; on average they each have about 9-12 Character Points' worth of Skills using the standard rules.

Degrees Of Complementariness

The standard Complementary Skill rules don't differentiate between Complementary Skills that are closely related to the task at hand, and those that are less relevant — any Skill that qualifies as Complementary can provide a bonus. This may not suit some GMs, particularly those running campaigns where Skill use is an important aspect of adventures. For those games, the GM can use the *degree of complementariness* rules so that some Complementary Skills are better than others.

As detailed in the accompanying table, the degrees of complementariness rules assign Complementary Skills to one of five categories. From best to worst, these are Extremely, Very, Average, Low, and Poorly Complementary. The greater the degree of complementariness, the greater the maximum bonus the Complementary Skill can provide. Furthermore, some highly Complementary Skills can, at the GM's option, provide an *automatic* bonus to the base

Skill Roll, even if the Complementary Skill roll fails (provided the failure isn't by 4 or more, or a Critical Failure). The automatic bonus is part of, not in addition to, the rolled bonus. For example, if a character has an Extremely Complementary Skill (+2 automatic bonus) and makes his roll by 8 (for a +4 bonus), he grants a +4 bonus to the base Skill Roll (not +6).

The GM determines what degree of complementariness a Complementary Skill has based on the situation, the special effects involved (if any), common sense, dramatic sense, and considerations of game balance. Most Complementary Skills tend to be Average Complementary; only a truly closely-related Skill should qualify as Very or Extremely Complementary. This is most appropriate when a character has a tightly-focused Background Skill directly related to the task.

DEGREE OF COMPLEMENTARINESS TABLE

Degree Of Complementariness	Automatic Bonus	Maximum Bonus
Extremely Complementary	+2	+5
Very Complementary	+1	+4
Average Complementary	None	+3
Low Complementary	None	+2
Poorly Complementary	None	+1

Base Times

As noted on 6E1 55, making a Skill Roll usually requires a Half Phase Action (but this can vary tremendously), and 6E1 59 discusses how characters can get a bonus to a Skill Roll for taking extra time (or suffer a penalty for trying to accomplish a task quickly). The GM can use the following rules for determining the *Base Time* required for a task to determine how long Skill use takes, and how much time a character has to devote to get an extra time bonus to his roll. As always, these rules are ultimately just guidelines; the GM has the final say on how long any given task takes.

DETERMINING THE BASE TIME

Typically the Base Time for a Skill depends on simple common sense and real-world experience, leavened by the "dramatic action" emphasis of the *HERO System* rules. For example, a little bit of research makes it apparent that hacking into a secured computer is, "realistically" speaking, a complex, time-consuming task. At a minimum it's likely to take an hour, and it could take days, weeks, months, or even years. But in adventure fiction and movies, computer-savvy characters often seem to hack systems much more quickly than that. To simulate this, the GM might set the Base Time for using Computer Programming to hack into a system as 1 Minute or 5 Minutes for a computer with basic/simple security,

SKILL COMBINATIONS

Name	Skills
Actor	Acting, Disguise, Mimicry
Animal Trainer	Animal Handler (7 points' worth), Riding
Athletics	Acrobatics, Breakfall, Climbing
Cat Burglar	Climbing, Lockpicking, Security Systems
Commander	Oratory, Tactics, WF (4 points' worth) (add Riding in Fantasy and other appropriate genres)
Con Artist	Conversation, High Society, Persuasion, Charm
Crime	Bribery, Forgery (3 points' worth), Gambling (3 points' worth), Streetwise
Detective Work	Criminology, Deduction, Forensic Medicine, Interrogation
Dilettante	Gambling (3 points' worth), High Society, Knowledge Skills (6 points' worth)
Doctor	Paramedics, SS: Medicine (INT Roll), SS: Surgery (INT Roll)
Electronics Wizard	Computer Programming, Electronics, Inventor, Systems Operation
Finesse	Climbing, Contortionist, Sleight Of Hand
Grease Monkey	Inventor, Mechanics
Gunfighter	Fast Draw, Two-Weapon Fighting (Ranged), WF (Small Arms)
Hacker	Computer Programming, Cryptography, Electronics, Systems Operation
Hunter	Navigation (Land), Stealth, Survival (2 points' worth), WF (2 points' worth)
Infiltration	Lockpicking, Security Systems, Stealth
Pilot	Combat Piloting, Navigation (Air), Systems Operation, TF (5 points' worth of Air Vehicles)
Politician	Bureaucratics, Oratory, Persuasion
Sage	20 points' worth of Knowledge Skills lumped into one Skill with an appropriate title (for example, a character with an extensive knowledge of history might buy Sage and change the name to *Historian*).
Sailor	Navigation (Sea), TF (10 points' worth — all the watercraft)
Scientific Genius	20 points' worth of Science Skills lumped into one Skill with an appropriate title (for example, a character with an extensive knowledge of the biological sciences might buy Scientific Genius and change the name to *Biologist* or *Biology Genius*).
Spy	Cryptography, Lockpicking, Security Systems, TF (2 points' worth), WF (2 points' worth)
Surveillance	Bugging, Concealment, Shadowing
Wheelman	Combat Driving, Navigation (Land), Shadowing (only in vehicles), TF (7 points' worth — all of the Motorized Ground Vehicles)

and when necessary increase the Base Time to represent stronger types of security. A GM in a more "realistic" game might start with a Base Time of 1 Hour and go from there.

The accompanying Base Time Table lists suggested Base Times for common tasks performed with each Skill. The times are chosen with dramatic realism as the primary consideration, and should often be lengthened for more "realistic" campaigns.

EXTENDED TASKS

Some tasks are so enormous or so complex that they could easily take weeks or months. Examples include building a new starship from scratch, curing an epidemic, or fighting a war. If you view them in the abstract, you could simply resolve them as a single Skill Roll with a large Base Time and various modifiers — but that's not necessarily much fun, and it doesn't necessarily allow individual characters to shine or to apply different Skills to different aspects of the situation.

As an optional rule, the GM can treat this sort of situation as an *Extended Task*. To perform an Extended Task, the GM divides the overall task into "sections" and assigns each one an appropriate Skill (and Skill Modifiers, if any) and Base Time. The characters involved have to succeed with each section before moving on to the next, and in the process they may make their job easier (or harder) and quicker (or slower) depending on how well they succeed (or fail). This works particularly well when the characters have a deadline to meet for the Extended Task.

For each section of the Extended Task, the primary character involved makes the Skill Roll chosen by the GM. The Complementary Skill rules apply, particularly in terms of other characters helping out. Characters can deliberately push themselves to work faster by accepting the -3 penalty per step up the Time Chart, or if necessary can take extra time to get a bonus to the Skill Roll (but at the risk of missing their deadline to finish the Extended Task). Depending on the degree of success (or failure) of a roll, a part of the Extended Task may take much less (or more) time than expected.

As the characters work on an Extended Task, the GM should interpret their success or failure in a dramatically appropriate way. Don't just let them make rolls and move on; explain what the rolls *mean* in setting terms and give them an impact beyond mere success or failure.

Example: *Prince Wolfgang and his friends (the PCs) need to build some fortifications quickly so they can stem an invasion of Thurgandia. They have a small army, plenty of tools, and a nearby forest to supply raw materials. The invading dwarven army will arrive in five days. The GM rules that building the best possible fortifications (given the resources available) will take 1 Week and require a Tactics roll. (He chooses Tactics because several PCs have this Skill, and none have a more directly relevant Skill like PS: Castle Design, PS: Build Fortifications, or PS: Combat Engineer. He assumes at least a few NPCs have Skills like that, though.)*

The GM decides to use the Extended Task rules to handle this situation, since that will emphasize the drama of trying to get the fortifications ready in five days instead of seven. He divides the work into four sections: clear and prepare the land; obtain and prepare raw materials; build basic fortifications; build advanced fortifications. Each takes about a day and a half to two days, give or take; the PCs will have to work hard to do all the tasks in just five days.

First, the heroes and their army clear and prepare the land — they remove trees, dig the outlines of moats, pits, and other obstacles, and pile up a mound of dirt to give their fortress some elevation. The GM has Wolfgang make a Tactics roll. First two other PCs make theirs (one fails, one succeeds by 1) and one NPC makes his PS: Combat Engineer roll (succeeding by 2). The Complementary Skill rolls give Wolfgang a total +2 bonus. He rolls well, succeeding by 3. This is enough to save some time, so the GM rules that the whole job takes only a day, rather than a day-plus.

Second, the characters must obtain the raw materials — mostly tree trunks and large stones — they need. They head off into the forest with their army and a lot of axes and saws. The GM decides that one PC, who has PS: Woodcutter because he used to help his father with that job, should be the primary character for this section of the Extended Task. None of the other PCs has any relevant Skill, so the character rolls. He succeeds exactly. The heroes have their supplies, but it took a day and a half to get them. The dwarven army arrives in two and a half days....

Third, the heroes have to build the basic fortifications — lay out and erect the log palisades and so forth. Wolfgang makes a Tactics roll with a +1 bonus from Complementary Skills; unfortunately, the NPC with PS: Combat Engineer failed his roll badly (-4), so the GM rules that he was badly hurt in an accident and can no longer help. Wolfgang's roll succeeds exactly, so the job is finished in a day and a half. One more day and battle will be joined.

Fourth and last, the heroes and their army need to put the finishing touches on the fort, finalize the moat and other trenches, and prepare the rest of the obstacles to slow down the dwarves. Wolfgang makes another Tactics roll, with a +2 bonus from Complementary Skill rolls. He succeeds by 6! The GM rules that with an inspirational speech and setting an example by working hard himself, Prince Wolfgang inspires the men to work extra hard so that they finish the fortifications in less than a day. Now they can snatch a few hours' rest before the dwarven army reaches the fort.

BASE TIMES TABLE

Skill	Task	Base Time
Acrobatics	Obtain combat bonus	No time
	Bounce off wall or surface	No time
Acting	Faking an injury	Half Phase
	Impersonating someone	Varies
Analyze	Analyzing subject	Half Phase (or more)
Animal Handler	Teach animal a trick	1-8 hours
	Calm a ferocious beast	Full Phase
	"Communicate" with an animal	Full Phase
Autofire Skills	N/A	
Breakfall	Any use	No time
Bribery	Evaluate subject's susceptibility	1 Minute or more
	Gauge proper amount/ type of bribe	1 Turn or more
	Offer bribe	Full Phase or more
Bugging	Plant bug	1 Minute or more
	Operate bug	Varies
	Sweep room for bugs	1 Minute or more
	Disable/counteract a bug	1 Turn
	Create a bug	1 Hour or more
Bureaucratics	Obtain information	1 Hour or more
	Hide information	1 Minute
	Obtain permission, papers, etc.	1 Hour or more
	Know who's who in organization	1 Minute or more
	Obtain appointment	1 Minute or more
	Use organization's resources	1 Hour or more
	Prompt/delay organizational action	1 Day or more
Charm	Gaining trust/friendship	1 Minute to 6 Hours
	Romantic seduction	1 Minute to 4 Hours
Climbing	Climb surface	2m per Full Phase Action
Combat Driving	N/A	
Combat Piloting	N/A	
Combat Skill Levels	N/A	
Computer Programming	Search for information	1 Turn or more
	Penetrating computer security	1 Hour or more
	Eliminate traces of activity	1 Turn or more
	Writing a program	1 Hour or more
Concealment	Hiding an object	Full Phase or more
	Search a person	See 6E2 175-76
	Search an area	Full Phase to 6 Hours

Skill	Task	Base Time
Contortionist	Escape from Grab/ Entangle	Half Phase or more
	Escape from restraints	1 Turn
	Fit into narrow space	Full Phase
Conversation	Any use	1 Turn
Cramming	Cram a Skill	20 Minutes or more
Criminology	Examine crime scene	Full Phase to 6 Hours
	Analyze evidence, simple	Full Phase to 1 Turn
	Analyze evidence, complex	1 Hour or more
	Criminological evaluation	1 Hour
Cryptography	Encode a message	5 Minutes to 1 Season
	Decode a message	5 Minutes to 1,000 Years
Deduction	Quick flash of insight	No time
	Research basis of deduction	1 Minute to 1 Day
Defense Maneuver	Any use	Half Phase (or No Time)
Demolitions	Create bomb	1 Hour
	Examine bomb	Full Phase
	Disarm bomb	1 Turn
Disguise	Apply disguise	Full Phase to 6 Hours
	Create disguise	20 Minutes to 1 Day
Electronics	Hotwire a car	Full Phase
	Create/repair electronics	1 Hour per 10 Active Points
	Disable electronic device	1 Turn per 10 Active Points
	Identify strange device	1 Minute per 10 Act Points
	Operate/activate strange device	2 Full Phases or more
Fast Draw	N/A	
Forensic Medicine	Basic visual examination of corpse	1 Turn
	Perform autopsy	1 Hour to 6 Hours
Forgery	Create fake object/ document	1 Hour to 1 Month
	Attempting to detect forgery	1 Minute to 6 Hours
Gambling	N/A	
High Society	Knowing proper customs	Half Phase
	Knowing who's who	Half Phase
	Learning goings-on	1 Hour
	Digging up society dirt	1 Hour
Interrogation	Interrogate/ torture subject	20 Minutes to 1 Hour
Inventor	Create an invention	1 Hour to 1 Month

BASE TIMES TABLE (CONTINUED)

Skill	Task	Base Time
Knowledge Skill	Remember a fact	Full Phase
	Research a fact	20 Minutes or more
Language	Speak a language	Length of conversation
Lipreading	Read lip	Length of conversation
Lockpicking	Pick a simple lock	Full Phase
	Pick more complex locks	1 Turn to 6 Hours
Martial Arts	N/A	
Mechanics	Create/repair machine	1 Hour per 10 Active Points
	Disable machine	1 Turn per 10 Active Points
	Identify strange machine	1 Minute per 10 Act Points
	Operate/activate strange machine	2 Full Phases or more
Mimicry	Imitate sound	Half Phase
	Imitate voice	Length of conversation
Navigation	Quick dead reckoning check	Full Phase
	Ascertain direction	1 Turn
	Plan a trip	5 Minutes or more
Oratory	Make a speech	Length of speech
Paramedics	Stop bleeding	Full Phase
	Provide field medical care	1 Turn or more
	Treat medical condition	1 Turn or more
Penalty Skill Levels	N/A	
Persuasion	Any use	Half Phase or more
Power	Any use	Zero Phase or Half Phase
Professional Skill	Any task	1 Turn or more
Rapid Attack	N/A	
Riding	Mounted movement in combat	See 6E2 30
	Mount a riding animal	Full Phase
	Dismount a riding animal	Half Phase
Science Skill	Any task	1 Turn or more
Security Systems	Locating security system	See *Concealment*
	Disable security system	1 Minute or more
Shadowing	Following someone	Varies
	Conducting surveillance	Varies
Skill Levels	N/A	
Sleight Of Hand	Any use	Full Phase
Stealth	Any use	Half Phase or more
Streetwise	Find person or information	20 Minutes to 1 Week
Survival	Foraging	1 Hour
	Hunting/trapping/fishing	3-6 Hours
	Food preparation	20 Minutes to 1 Hour
	Find water	1 Hour
	Make water drinkable	20 Minutes to 1 Hour
	Find fuel for fire	1 Minute to 1 Hour
	Start a fire	1-5 Minutes
	Find shelter	20 Minutes to 6 Hours
	Build a shelter	1d6 Hours
	Predict the weather	1 Turn
Systems Operation	Operate device	Half Phase to 1 Turn
	Identify strange device	1 Minute per 10 Act Points
	Create/repair device	1 Hour per 10 Active Points
	Overcome interference	1 Minute
	Improve transmission	1 Minute
	Eavesdrop on transmission	1 Turn or more
	Trace transmission	1 Turn to 1 Minute
	Analyze recordings	1 Turn to 1 Hour
Tactics	Anticipate enemy action	Half Phase
	Battlefield analysis	Half Phase
	Improve small-unit efficiency	Full Phase
	Plan ambush or attack	1 Turn
	Plan fortifications	1 Hour
Teamwork	N/A	
Tracking	Finding a trail	1 Turn
	Read tracks	Full Phase
	Hide tracks	Varies
Trading	Appraise goods/ services	5 Minutes
	Evaluate the market	1 Minute to 1 Hour
	Negotiate price	1 Turn or more
	Negotiate a deal	1 Hour or more
Transport Familiarity	N/A	
Two-Weapon Fighting	N/A	
Ventriloquism	Any use	Length of conversation
Weapon Familiarity	N/A	
Weaponsmith	Create weapon	1 Hour or more

N/A: Not Applicable, meaning the Skill takes no time to use, or that its use is part of some other Action (such as making an attack).

TASK DIFFICULTY

Alternately, the GM can handle extended tasks and similar challenges by assigning them a *Task Difficulty* rating. The character makes one roll for each Base Time period that passes, and the amount he makes the roll by subtracts from the Task Difficulty. When the Task Difficulty reaches zero, the character has completed the task.

Using the standard "Ease Of Task" categories on 6E1 58, a Routine task usually has a Task Difficulty of 0-2; an Easy task usually has a Task Difficulty of 3-4; an Average task usually has a Task Difficulty of 5-10; a Difficult task usually has a Task Difficulty of 11-20; an Extremely Difficult task usually has a Task Difficulty of 21-40; and a Sheer Folly task usually has a Task Difficulty of 41 or higher. Since the Ease Of Task sets the Task Difficulty, characters do not also get the Ease Of Task modifier to their Skill Rolls.

If a character fails a roll while using the Task Difficulty system, it usually means he accomplished nothing during that time period. If he fails badly (by 4 or more) the amount he failed by *adds to* the Task Difficulty — he's made things harder on himself. For a Critical Failure, the GM might increase the Task Difficulty even more.

Example: *Smooth-talking troubador Whistler tries to persuade an innkeeper to give him room and board for the night in exchange for playing and singing in the inn's common room for several hours. The innkeeper is stubborn and miserly, so the GM decides to use the Task Difficulty system. He rules that the Base Time for this Persuasion task is 1 Turn and that it's a Difficult task with a Task Difficulty of 15. Whistler wheedles and persuades for 1 Turn using his Persuasion 14- and makes his first roll. He rolls a 10, making it by 4, thus reducing the Task Difficulty from 15 to 11. He talks for another Turn, making his roll by 1; the Task Difficulty becomes 10. A third Turn of talking yields a great roll, 8, so the Task Difficulty falls to 4 — the innkeeper's wavering! But then Whistler says something that strikes the innkeeper the wrong way — he rolls an 18! Since this means failure by 4 or more, the GM adds the amount failed by (4) to the Task Difficulty, bumping it back up to 8. It takes Whistler three more rolls — for a final total of seven Turns, or nearly a minute and a half, of talking to get the Task Difficulty to 0 so he can have a room and meal for the price of a few songs.*

You can also use the Task Difficulty rules to create "dramatic tension" with tasks that have to be accomplished by a specific deadline (such as "disarm this bomb in four minutes or the building goes up in a mushroom cloud" or "better fix the engine in the next two minutes or we're gonna crash!"). The GM sets a Task Difficulty, and if the character doesn't get the work done in time, bad things happen....

For Skill Versus Skill Contests, the GM can set a Task Difficulty as a target number to indicate when the character initiating the Contest wins it (if ever). In this case, the Task Difficulty is reduced only by the amount the initiating character's roll exceeds the defending character's — and if the defender wins, the Task Difficulty increases by the amount he won the Contest by.

Example: *Take the same example above, but the GM lets the innkeeper use his EGO Roll 12- to resist Whistler's Persuasion 14- in a Skill Versus Skill Contest. For the first roll, Whistler rolls a 10 and the innkeeper rolls a 13, failing by 1. Thus Whistler won the Contest by 5, so the Task Difficulty decreases to 10. In the next Turn, Whistler rolls a 13 but the innkeeper rolls a 10, so the innkeeper wins by 1 and thus the Task Difficulty increases to 11. The Contest proceeds until Whistler wins, Whistler gives up in disgust, or the innkeeper refuses to discuss the matter anymore.*

Alternately, if the Skill Versus Skill Contest is less a matter of "two characters opposing each other" than it is "two characters competing to complete a task first," the GM may set a Task Difficulty for them and let each of them make his Skill Rolls. The first one to reduce the Task Difficulty to 0 gets the job done first and wins.

SKILL MODIFIERS

This section offers additional information about and rules for Skill modifiers. This is most appropriate for campaigns that emphasize Skill use, such as many Heroic games.

EASE OF THE TASK

Some tasks are easy, others are nearly impossible, and the GM should use positive and negative modifiers to reflect this. Most tasks are "average," meaning there's no modifier at all, but during an adventure, circumstances often arise that are far from average. In some cases, a more precise type of Skill Modifier (*e.g.,* broken or lost equipment) covers the specific type of difficulty in a situation, so you should use that modifier instead; "ease of the task" modifiers are the most general and vague type of Skill Modifier the GM can apply.

EASE OF TASK MODIFIERS

Difficulty Category	Modifier
Routine	+3 to +5
Easy	+1 to +3
Average	+0
Difficult	-1 to -3
Extremely Difficult	-3 to -5
Sheer Folly	-5 to -10 (or more)

In the case of "Routine" and "Easy" tasks, don't forget that in ordinary situations, when a character's under no stress or pressure and has sufficient time to perform a task correctly, there's no need to make a Skill Roll — just assume he succeeds (see 6E1 57).

GENERAL CONDITIONS

The general conditions under which a character uses a Skill can also affect his chances of success. The GM assesses the general conditions, then consults the accompanying table for the appropriate modifier. As with ease of the task, these are general and vague modifiers that may be replaced by more precise modifiers when appropriate... but they're more likely to be cumulative with other modifiers than ease modifiers are.

GENERAL CONDITIONS MODIFIERS

Condition	Modifier
Excellent Conditions	+1 to +3
Poor Conditions	-1 to -5
Extremely Strange/Weird Subject of Skill	-1 to -5
Extensive Knowledge of Subject of Skill	+1 to +3
Combat conditions	-1 to -3
Time/deadline pressure	-1 to -2
Being stealthy	Requires Stealth roll at -2 or worse

EXCELLENT AND POOR CONDITIONS

Depending on the Skill, "Excellent Conditions" may include things like very good weather, having plenty of time, being in a comfortable situation, and so forth. "Poor Conditions" are the opposite — lousy weather, discomfort, being pressured/subjected to stress, and the like.

STRANGE OR WEIRD SUBJECT

Performing Skills upon objects or subjects that are extremely strange, weird, or unusual imposes penalties of -1 to -5 to the Skill Roll. See APG 30-31 for more specific rules regarding unusual technologies.

EXTENSIVE KNOWLEDGE

Characters who have "extensive knowledge" of the object or subject of their Skill Roll receive a positive modifier. A good example would be a group of commandos sent to defuse a terrorist's bomb. Experts have briefed them in advance on the type of bomb the terrorist usually uses and how to defuse it. If the experts' information is correct, the commandos receive a bonus for having extensive knowledge of the situation. The GM should *not* grant an extensive knowledge bonus because a character knows a lot of related or similar Skills; that's what the Complementary Skill rules are for. (However, in some situations a character may use Cramming to obtain an obscure Knowledge Skill solely for the purposes of reflecting "extensive knowledge," and this is perfectly appropriate.)

COMBAT CONDITIONS; TIME/DEADLINE PRESSURE

In some cases, trying to use a Skill in combat conditions, or other high-stress crisis situations, imposes a -1 to -3 penalty on the Skill Roll.

The following Skills are intended for use in combat conditions, or can be used in combat with no penalty, and therefore characters receive no negative modifiers for using them in combat: Accurate Sprayfire, Acrobatics, Analyzes related to combat situations (Analyze Style, Analyze Combat Technique, and the like), Breakfall, Combat Driving, Combat Piloting, Concentrated Sprayfire, Fast Draw, Rapid Attack, Rapid Autofire, Skipover Sprayfire, Stealth, Tactics, Two-Weapon Fighting, and Weapon Familiarity. All other Skills are *not* normally used in combat conditions — even Skills often associated with combat situations, such as Demolitions, typically aren't intended for use when the character is under attack. Characters using those Skills in combat suffer a negative modifier determined by the GM.

Similarly, characters who are under some sort of time or deadline pressure or similar forms of stress (the bomb is going to explode in six seconds, only have one hour to write a 5,000-word story) suffer a negative modifier to their Skill Rolls.

STEALTHY SKILL USE

Characters have trouble performing Skills if they try to be stealthy while doing so. Characters may not be able to use some Skills in a stealthy fashion at all; the GM determines this on a case-by-case basis. If stealthy use is possible, the character must make a Stealth roll at -2 (or worse, at the GM's discretion) to perform the task stealthfully. If he fails the roll he can still attempt to use the Skill, but others can perceive him doing so as usual.

DAMAGE TO SUBJECT

If the object the character is using his Skill — a lock he's trying to open with Lockpicking, and engine he's trying to fix with Mechanics, a broken radio he's trying to make a last-ditch Systems Operation roll with — has suffered damage, it's harder for him to succeed. (The same applies with Paramedics and similar Skills based on the subject's degree of injury.) The accompanying table lists the standard modifiers in this situation.

"Significant" damage is damage to a specific part of the subject, or a specific type of damage, that the GM deems particularly relevant or necessary for the Skill used or task attempted. For example, if a character has to pick a lock, and parts of the lock have been fused together by fire damage, the GM might consider that "significant" damage and tack on an additional -2 penalty to the roll. Significant damage penalties are cumulative with other damage modifiers.

At the GM's option, damage to the subject may not affect some Skills or Skill uses. For example, damage to parts of a radio might not penalize a character who wants to use that radio to jam another radio's signal.

DAMAGE TO SUBJECT MODIFIERS

Damage	Modifier
Less than 1/3 BODY	-0
1/3 to 2/3 BODY	-2
More than 2/3 BODY	-4
Significant damage	Additional -1 to -3

EQUIPMENT

Many Skills, like Lockpicking and Demolitions, almost always require some type of equipment to perform. With the right, or right type of, equipment, a character may find his task easier to perform (or at least *possible* to perform). On the other hand, using poor-quality, improvised, or damaged equipment probably makes his job tougher, if not impossible. The accompanying table has suggested modifiers for equipment quality.

"Improvised" equipment includes makeshift, jury-rigged, and other less-than-perfect forms of equipment used when nothing better is available. Determining which types of equipment are Poor, Very Good, and so forth is left to the GM's discretion — unless, of course, the character has paid Character Points for better-than-average equipment, in which case he's entitled to the bonuses he paid for. You can use the guidelines in this table when deciding how to build quality equipment. For example, if a character wants "very good" lockpicks, he should buy them as a +3 (or greater) bonus to Lockpicking on a Focus.

EQUIPMENT MODIFIERS

Type Of Equipment	Modifier
None	Cannot perform Skill
Very Poor	-4 to -6 or more
Very Damaged	-4 to -6 or more
Poor *and* Improvised	-4 to -6 or more
Poor, Improvised, or Damaged	-1 to -3
Average	+0
Good	+1 to +2
Very Good	+3 to +4
Extremely Good	+5 or more

BUYING EQUIPMENT

If a Skill requires equipment, unless stated otherwise in the Skill's writeup it's not necessarily assumed that the character gets the needed equipment for "free," because he may have to pay money for it in the game or the like. But he doesn't have to pay a separate Character Point cost for the equipment (unless, as noted above, he's buying a particularly good form of equipment defined in rules terms).

In some cases a character may want "concealed" versions of standard equipment, such as a set of lockpicks built into what looks like a ballpoint pen, or a listening device that looks like a coin. Generally, there's no need to pay Character Points for this sort of equipment — it's something the GM allows as part of the campaign that characters can purchase with money. However, concealable equipment may cost much more than ordinary equipment since it's usually harder to manufacture, illegal to own, or the like. If the GM absolutely insists on having characters pay Character Points for concealable/disguised standard equipment, buy it this way: Relevant Skill 8- (1 Active Point); IAF (-½) (total cost: 1 point) (alternately, a character can buy a *Concealment* Skill for his equipment). The character uses his own Skill Roll, not that of the gear; the "roll" simply indicates which Skill the equipment is intended for.

INJURY

At the GM's option, it's harder for a character to perform most Skills when he's hurt. The penalties in the accompanying table reflect this. This modifier works best in more "realistic" games, like some Dark Champions or Low Fantasy games; it's usually not appropriate (or at most applies to some lesser degree) in more cinematic campaigns.

A "significant" injury is one to any part of the body, or a specific type of wound, that the GM deems particularly necessary for the Skill used or task attempted. For example, a character who's received an injury to his hand may suffer additional penalties to Skills such as Lockpicking and Demolitions, and in some cases an injury caused by, say, acid may affect a character more strongly than a wound from a punch or knife. Significant injury penalties are cumulative with other injury modifiers.

At the GM's option, injuries may not affect some Skills. For example, Knowledge Skills and uses of other Skills that simply reflect knowing something often ignore injury penalties (unless the injury is to the head).

INJURY MODIFIERS

Degree Of Injury	Modifier
Less than 1/3 BODY	-0
1/3 to 2/3 BODY	-2
More than 2/3 BODY	-4
Significant injury	Additional -1 to -3

MONEY

In some cases a character can make it easier to perform a task or resolve a problem by "throwing money at it" — in other words, by spending extravagantly on the best parts, a legion of assistants, copious bribes, or whatever else is necessary for what he's doing. At the GM's option, a character with Money can obtain a +1 bonus to a single Skill Roll for each 1 point of Money he "throws" at the problem. This represents a fraction of his annual income equal to the fraction of his points of Money he spends, so it's not an idle sacrifice. For example, if a character with 10 Character Points in Money spends 2 points of his Money to get a +2 bonus on a single Skill Roll, that represents 20% of his income for that year; if a character with 15 points of Money spends 5 points of it on a single Skill Roll, he get a +5 bonus on that roll at the cost of 33% of his annual income.

The GM should only allow a character to throw Money at a Skill Roll if doing so will significantly inconvenience that character for that year. If the campaign doesn't focus much on Money, or characters' financial lives never seem to be part of the game, the GM shouldn't allow characters to use this rule. On the other hand, if the nature of the campaign is such that the GM can make the character feel the financial pinch of throwing Money at a Skill it's a good way to let a character prove just how much succeeding with a specific roll means to him.

On the other hand, too little money may cause real problems with a project. For every 10% below the calculated expenses that the character spends, he suffers a -2 on relevant rolls. In "realistic campaigns," the project is simply impossible below half the appropriate cost. In cinematic games, a sufficiently clever inventor can improvise and scrounge with no money at all.

MOVEMENT

At the GM's option, characters in motion — who move during the same Segment when they want to use a Skill — have a more difficult time performing many Skills, whether they're moving under their own power or are in a moving vehicle, as indicated by the accompanying table. Generally this only applies to Skills that require rolls; it doesn't affect a character's ability to allocate his Combat Skill Levels, Penalty Skill Levels, or Skill Levels, shout a command in a learned Language, to use Rapid Attack or Two-Weapon Fighting, or the like. At the GM's option, it also does not apply, or applies at a lesser level, to Skills that inherently involve some movement, such as Breakfall or Acrobatics.

MOVEMENT MODIFIERS

Movement This Phase	Modifier
Half Move (under own power)	-2
Full Move (under own power)	Cannot perform any Skills unless permitted by GM
In smooth-riding vehicle/ mount	-1 to -2
In rough-riding vehicle/ mount	-2 to -5

In campaigns that stress "realism," the GM may want to significantly increase these penalties (say, by another -2 to -4 each).

SKILL PERIOD

As discussed on 6E1 59, the Skill Table assigns every Skill to one or more *Skill Periods,* which define the genres and eras for which those Skills are appropriate (roughly speaking). Characters are typically trained in how to use a Skill based on their native period/genre; if they try to use a Skill as it would be used in an earlier or later period, they suffer penalties. This most often applies to technology-oriented Skills; the same problems may apply to non-technical Skills, but this is less common. (See also the *Technology* modifiers, described below.)

A Fantasy-era character who has the opportunity to use Skills from later periods often suffers a Skill Roll penalty of -3 to -5 for dealing with Modern situations, -5 to -8 for Future.

A Modern character trying to use his Skills in Fantasy era situations (for example, to use Security Systems, which he learned to defeat electronic burglar alarms, to neutralize a trapdoor), or in Future eras where he may not completely understand what's going on, suffers Skill Roll penalties of -2 to -4. On the other hand, a Modern character applying Modern knowledge, techniques, and perhaps even technology to a Fantasy-era problem (perhaps because he's traveled back in time) may receive a +2 to +4 bonus to reflect his more expansive abilities — thanks to his greater knowledge, he can easily resolve problems that frustrate Fantasy characters.

Future characters trying to use their Skills in Modern settings or with Modern technologies may suffer Skill Roll penalties of -2 to -4; the penalty increases to -5 or greater in Fantasy eras. These penalties may instead become bonuses if the character applies his Science Fiction knowledge, techniques, and perhaps even technology to earlier-period problems that would baffle the people of that time due to lack of knowledge or the like.

EXPANDING SKILL PERIOD MODIFIERS

For some campaigns (such as time traveling games, or games where the characters frequently explore ancient ruins), the GM may want greater granularity in the Skill Period rules. The accompanying table lists ten time periods, defined roughly by genre, organized in descending order from earliest to latest (sort of like a "Time Chart for history"). For every step up or down the chart from a character's native period (*i.e.,* every step backward or forward in time), he suffers a cumulative -2 penalty on Skill use. (As noted above, when a character applies his Skill to problems from an earlier time period, sometimes the GM may convert this into a bonus instead if a character's greater degree of knowledge would prove unusually helpful.)

Using these rules may make things much more difficult for the PCs. For example, a character trained in how to set up and defuse modern-day security systems will have a lot of trouble trying to disarm a collapsing pit trap from Babylonian times — it's not nearly as much within his field of knowledge.

The GM can increase this to -3 per step for greater "realism," or decrease it to -1 for more cinematic games. Similarly, he can alter the penalty for more sophisticated technology (*i.e.,* technology from periods down the chart from what the character's used to) if he thinks the increased "user friendliness" of the advanced tech would help the character. And in some cases he may want to decrease the penalty generally; sometimes the gulf of time doesn't matter much if a problem involves relatively simple equipment or can be solved through careful application of reason and logic.

EXPANDED SKILL PERIOD MODIFIERS

Fantasy — Ancient (up to 500 AD)
Fantasy — Medieval (501-1399)
Fantasy — Renaissance (1400-1599)
Age Of Reason/Piracy/Sail (1600-1849)
Western/Victorian (1850-1913)
Pulp (1914-1939)
Modern-Day (1940-2020)
Science Fiction — Near Future (2021-2299)
Science Fiction — Far Future (2300-2699)
Science Fiction — Very Far Future (2700 and later)

ROLEPLAYING

When a player roleplays the use or performance of a Skill well, his character should receive a +1 to +3 bonus to his Skill Roll.

TIME

Taking more or less time than normal can affect Skill Rolls.

TAKING EXTRA TIME

First, and most commonly, a character who takes extra time to perform a Skill gets a positive modifier. This is because he's taking his time, being extra careful, analyzing the situation thoroughly, and so forth. For every step down on the Time Chart *beyond the Base Time for the Skill,* the character gets +1 to his Skill Roll. (See APG 19-23 regarding Base Times for Skills.)

Example: *The Base Time for using Acrobatics is, at most, a Half Phase. Nighthawk wants to attempt a particularly difficult leap-flip-grab the ledge maneuver so he can sneak into Green Dragon's hideout without being seen. Because it's a difficult maneuver, the GM rules that Nighthawk suffers a negative modifier of -2 to his Acrobatics roll. Nighthawk spends 1 Minute studying the layout of the location, his approach, and other factors. By spending this extra time (1 Minute is two steps down on the Time Chart from 1 Phase, the closest Base Time on the Time Chart), Nighthawk gets a +2 positive modifier to his Skill Roll, effectively negating the penalty for the difficulty of the maneuver.*

Example: *The Base Time for performing Paramedics is 1 Turn. Drago has been hurt in combat and Freda decides to use Healing (the* Fantasy Hero *form of Paramedics) to prevent the wound from getting worse. She spends 1 Minute cleaning the wound, applying bandages, and so forth. Because 1 Minute is one step down the Time Chart from the Skill's Base Time of 1 Turn, Freda gets a +1 to her Paramedics roll to determine if she successfully helps Drago's wound heal properly.*

PERFORMING SKILLS MORE QUICKLY THAN NORMAL

Second, characters can try to perform a Skill more quickly than normal — either to impress onlookers, or because there's some sort of deadline involved ("You've only got ten seconds to defuse the bomb, McCarrigan. No pressure, buddy"). For each step up on the Time Chart *beyond the Base Time for the Skill,* the character suffers a -3 penalty to his Skill Roll. (At the GM's option, if a Skill takes a Full Phase to perform, a character can perform it in a Half Phase at a -3 penalty [and possibly as a Zero Phase Action at a -6 penalty]; a Skill that normally takes a Half Phase can, with the GM's permission, be performed as a Zero Phase Action for a -3 penalty. However, in no case can a character use a Skill against another character in any way as a Zero Phase Action.)

Example: *McCarrigan has to defuse a booby-trapped bomb before it explodes — and the timer says there's only ten seconds left! Unfortunately, the GM rules that defusing a bomb with a booby trap of this complexity would normally require 20 Minutes. McCarrigan only has a Turn (ten seconds is a little less than a full Turn, but it's close enough for the GM). 1 Turn is three steps above 20 Minutes on the Time Chart, so McCarrigan's going to suffer a -9 penalty to his Demolitions roll. Good luck....*

TIME CHART (EXPANDED)

Time Period/Duration
1 Segment
1 Phase
1 Turn (Post-Segment 12)
1 Minute
5 Minutes
20 Minutes
1 Hour
6 Hours
1 Day
1 Week
1 Month
1 Season (3 months)
1 Year
5 Years
25 Years
1 Century
5 Centuries
2,500 Years
10,000 Years
50,000 Years
250,000 Years
1 Million Years
5 Million Years
25 Million Years
100 Million Years
500 Million Years
2.5 Billion Years
10 Billion Years
50 Billion Years

To overcome this penalty, a character can buy Skill Levels for the specific purposes of counteracting it. If the GM considers this cost-prohibitive, he may want to reduce the penalty for performing Skills more quickly than normal (to, say, -2 per step up the Time Chart).

In "realistic" campaigns, characters who try to perform tasks at high speed may run into a problem: the equipment they need to use the Skill, or the medium upon which they practice the Skill, can't withstand the force of their speed! This is particularly likely to happen to comic-book speedsters in Champions campaigns. For example, it doesn't matter how fast a speedster can type commands into a computer if the keyboard breaks after just a few seconds of ultra-fast keying. Speedsters may also have problems with equipment that's deliberately designed to slow people down, such as anti-hacking computer software that only allows the input of so many possible passwords in a given amount of time. The GM can simulate these difficulties by imposing additional penalties on the Skill Roll, having the character's powers automatically do a certain amount of damage to equipment he uses, or the like.

Modifiers For Skill Categories

The following modifiers apply to Skills of a particular category.

AGILITY SKILL MODIFIERS

The following modifiers apply to all Agility (*i.e.,* DEX-based) Skills.

ARMOR

In campaigns where characters frequently wear "realistic" armor (*e.g.,* some Fantasy Hero games), some GMs prefer to impose specific penalties for wearing armor, instead of counting the armor as part of the character's overall load for Encumbrance purposes. For example, the penalty might be -1 per 3 PD/3 ED of defense.

ENCUMBRANCE AND BULKINESS

It's much harder to perform Agility Skills when the character carries more than he comfortably can. Consult the Encumbrance Table on 6E2 46 and apply the listed "DEX Roll" penalty to all Agility Skills.

Furthermore, particularly bulky or awkward burdens might impose additional penalties. A "Bulky" load — including any Focus with the *Bulky* Limitation, a large television set or appliance, pieces of furniture, and the like — would impose another -1 penalty. A "Very Bulky" load — especially bulky or awkward loads, such as an injured or unconscious person or a keg of ale — entails an additional -2 penalty.

NOT USING HANDS

Agility Skills normally require the use of the hands — but sometimes a character can't use his hands for some reason (they're tied up, broken, can't reach the object to be manipulated, or the like). A character can attempt to perform an Agility Skill with his mouth at a -5 penalty, or his feet/toes at a -8 penalty. The GM may adjust these penalties based on the situation. A character who buys his legs and/or mouth as Extra Limbs suffers no penalties for performing Agility Skills with them.

INTELLECT SKILL MODIFIERS

The following modifiers apply to all Intellect (*i.e.,* INT-based) Skills. See also *Perceptive Skills,* below, since many Intellect Skills require a character to perceive something.

REFERENCE MATERIALS

For many Intellect Skills, one of the most useful pieces of equipment a character can have is *reference materials* — books, pamphlets, computer databases, and other sources of information characters can look to for the details. For example, even the most most competent user of Mechanics can't remember every single one of the literally tens of thousands pieces and spare parts he might need to use. He's an expert not only because he knows about more of them than the average mechanic, but because he knows when and where to look up more information in a technical manual or parts catalog.

You can use the Equipment modifiers (see above) to represent the quality of the reference materials available to a character when he's using a Skill. Alternately, characters can buy a particularly useful reference source as a bonus to a Skill on a Focus; a library of reference materials might qualify as a "laboratory" in a Base instead, allowing characters to use its Skills as Complementary Skills.

INTERACTION SKILL MODIFIERS

The following modifiers apply to all Interaction (*i.e.,* PRE-based) Skills.

ALIENNESS

In some settings, characters of one species (or race) have difficulty interacting with characters of any other species — something about the "alien" nature of other species makes it hard to relate to them. Sometimes this phenomenon depends on "classes" of aliens; a mammalian species might relate just fine to any other mammalian species, but reptilian or ichthyoid species give it the willies. This trait is most common in Low Science Fiction, Low Fantasy, or "realistic" settings; it almost never exists in Space Opera Science Fiction, Pulp Science Fiction, or High Fantasy, where dozens of alien species or fantastic races mingle freely together.

To reflect this discomfort, GMs can impose a penalty on all Interaction Skill rolls between members of two different species: -2 for relatively similar species; -4 for dissimilar species; and -8 (or more) for greatly different species (like a physical being and an energy being).

APPROPRIATENESS

Interaction Skills are particularly limited by the appropriateness of the situation. Trying to use Persuasion on an enemy in the middle of a battle, bribe someone while lots of people are watching, or the like is almost certainly doomed to failure. It's not necessarily impossible — after all, the *HERO System* is about dramatic action, and sometimes heroes can do some bizarre and spectacular things if fortune favors them — but it's difficult (-4 or greater penalty, typically).

On the other hand, sometimes a particular Interaction Skill is especially appropriate for the situation at hand. Usually this doesn't merit any bonus, but sometimes the GM provides a small one (+1 or +2).

STRIKING APPEARANCE

As discussed on 6E1 115, the *Striking Appearance* Talent can modify appropriate Interaction Skill rolls where a character's looks might be a factor.

PRESENCE ATTACKS

In many cases the GM can use appropriate modifiers listed under Presence Attacks in the main rulebook as modifiers to Interaction Skill rolls by converting the number of dice into a penalty. For example, a +2d6 modifier equals a +2 Skill Roll modifier (or a -2 EGO Roll modifier). (But see below regarding Psychological Complications.)

Alternately, the GM can allow a character to make a Presence Attack as a sort of "Complementary Skill Roll" to an Interaction Skill. The GM determines what level of Presence Attack a character would have to achieve to get the results the character wants from using his Interaction Skill. He then makes a Presence Attack, roleplaying it if appropriate (and perhaps to obtain bonus dice!). For every 5 points by which the roll exceeds the target number, the character gets a +1 bonus on his Interaction Skill roll.

PSYCHOLOGICAL COMPLICATIONS

A character's ability to use Interaction Skills successfully on a target depends in part on the target's Psychological Complications. Some Psychological Complications make one or more Interaction Skills easier to use on a target; some make it harder. For example, a character who is *Greedy* may be more susceptible to Bribery. A character who's a *Skirtchaser* or *Lustful* probably gives in to Charm and similar Skills quicker than one who's taken a *Vow Of Chastity.* Modifiers from Psychological Complications depend on the intensity of the Complication, as indicated by the accompanying table.

Caveat: the Interaction Skill Effects Table on APG 33 uses Psychological Complication values as a "benchmark" indicating how much a character must make an Interation Skill Roll by to affect the target. If the GM uses that rule, he should not also apply Psychological Complication modifiers unless he feels it's particularly appropriate to do so.

PSYCHOLOGICAL COMPLICATION MODIFIERS

Intensity And Nature Of Complication	Modifier
Moderate, in favor of Skill use	+1
Moderate, opposed to Skill use	-1
Strong, in favor of Skill use	+2
Strong, opposed to Skill use	-2
Total, in favor of Skill use	+3
Total, opposed to Skill use	-3

RESISTANCE AND REPUTATION

The *Positive Reputation* Perk and *Resistance* Talents can provide direct bonuses or penalties to Interaction Skills generally (or to a specific Interaction Skill in the case of Resistance and its kin). The *Negative Reputation* Complication may also affect certain Interaction Skill rolls.

MENTAL POWERS

At the GM's option, characters with Mental Powers who have Interaction Skills can use some Mental Powers (primarily Mind Control) to "enhance" those Skills. In essence the character subtly uses his Mental Power to "boost" the Skill. This provides a bonus to the Skill Roll: +1 to the roll for every 10 points of Mental Power used to enhance it. The mentalist must pay the standard END cost for any Mental Power used to enhance an Interaction Skill.

Using a Mental Power to enhance an Interaction Skill is perceivable with Mental Awareness (unless, of course, the Mental Power has Invisible Power Effects to the Mental Sense Group). It also allows the target of the Skill to use his Mental Defense (if any) as a bonus to whatever Skill Roll he makes to counteract, avoid, or fight off the Skill.

Example: *Brainstorm wants to use his Persuasion to convince a guard to let him go. He decides to mentally enhance his Persuasion with 40 points' worth of his Mind Control, giving him +4 to his Persuasion 12- (total 16-). This costs him 4 END. The GM rules that the guard will try to resist the attempted persuasion with an EGO Roll. His base roll is 11- and he has 5 points of Mental Defense. This adds to his EGO Roll, giving him a 16- roll to resist Brainstorm's Persuasion roll.*

Even if a character uses a Mental Power to enhance an Interaction Skill, he can't use that Skill to do anything more than he could with a normal use of that Skill — though with the bonuses involved, making Extraordinary Skill Rolls may become much easier. To achieve greater effects, mentalists must use Mental Powers directly on the target. In some cases a character may even purchase a Skill (or Skill Levels) to represent a low-level, subtle, or subconscious use of psionic powers to influence and affect the world around him.

In most cases the appropriate power for enhancing an Interaction Skill is Mind Control. Mental Illusions or Telepathy may be better suited to some tasks or situations; the final call on which Power to use is up to the GM. A character can only use a single Mental Power to enhance a particular use of an Interaction Skill.

The GM may, at his discretion, expand the use of Mental Powers to enhance Skills other than Interaction Skills. For example a psychometric power (Retrocognition) might enhance some uses of Criminology of Forensic Medicine, while Telepathy (*i.e.,* reading the "trace thoughts" that linger on a physical object) might enhance Skills like Demolitions, Lipreading, or Cryptography. Agility Skills, Background Skills, and Combat Skills usually cannot be enhanced psionically, though this may depend on the situation.

ROLEPLAYING

More than any other type of Skill, Interaction Skills can benefit from good roleplaying... or suffer from bad roleplaying. The GM should consider granting a bonus of +1 to +3 for good roleplaying of an Interaction Skill, or a similar penalty if the character doesn't try to roleplay it at all or does so badly.

Of course, "good" or "bad" roleplaying can be a relative thing, and in general GMs shouldn't penalize characters because their players aren't as good at something as the character himself should be. Players don't have to be crack marksmen to buy Combat Skill Levels, martial artists to buy Martial Arts, or pilots to buy TF: Small Planes for their characters, so they shouldn't have to be socially adept or sophisticated to buy and use Interaction Skills. But since any player can talk and act, as long as a player makes at least *some* reasonable effort to roleplay what his character does, that should suffice to at least prevent a penalty (even if it's not enough to get a bonus).

PERCEPTIVE SKILL MODIFIERS

The Perception Roll modifiers on 6E2 11-13 apply to "Perceptive Skills" — that is, Skills involving perception or analysis of phenomena, such as Criminology, some aspects of Bugging and Mechanics, Lipreading, or Tracking. Typically this means perception with Sight, but in some cases other Senses may be involved.

For example, if a Skill requires a character to read or observe something (a book or scroll, a radar screen, a speaker's lips...), then the modifiers for darkness, shadow, and lighting apply to the Skill Roll. After all, it's kind of difficult to read a book in pitch-black conditions! The same applies to trying to see something over a long distance (*i.e.,* in game terms, the Range Modifier applies) or hear something in a noisy room.

If it's impossible for a character to use a particular Sense (usually because Darkness or a Flash have "blinded" him or block his Sense entirely), he cannot use Perceptive Skills based on that Sense.

TECHNOLOGICAL SKILL MODIFIERS

"Technological Skills" refers to Skills that involve working with particular types of equipment. Examples including Computer Programming, Demolitions, Electronics, Lockpicking, Mechanics, Security Systems, and Systems Operation. The Skill Modifiers for equipment almost always apply to these Skills (many of which cannot be performed without the right tools or gear).

Rather than use the general Skill Period rules discussed above, technology-heavy games may prefer a more precise system of Skill modifiers based on technological advancement and compatability.

OBSOLETE AND ADVANCED TECHNOLOGY

Often technologies introduced at an earlier tech level remain in use for long periods. Humans in the early twenty-first century still use automatic pistols designed before 1900 (and still manufacture some, with minor improvements). Axes and hammers are among the earliest known tools, and are still available at the hardware store. In general, characters suffer no penalty using (relatively) simple equipment from an earlier tech level, particularly if that equipment is still generally in use in their society or is highly similar to common technology. There are exceptions to this: some technologies become so obsolete that characters accustomed to a more advanced tech landscape are completely unfamiliar with them. Firemaking is a good example — until the invention of matches just about everyone could kindle a fire with flint and steel; now it's something to study in wilderness-survival courses or historical reenactment workshops. Forgotten tech imposes a minimum -3 Skill Roll penalty, or the GM may not allow the character to make a roll at all. (For more cinematic games, the GM can reduce the penalty to -2 or -1.)

Advanced technology is much harder to use. The standard skill penalty is -3 for each step down on the Expanded Skill Periods Modifier table. But this applies only to equipment based on understandable principles — an Industrial-Age steam engineer trying to fix an Atomic Age chemical rocket motor, for example. If the technology involves new concepts unknown to the low-tech person, there's an additional -5 penalty (though the GM may wish to cap the overall penalty for technological unfamiliarity at -10). Thus, a steam engineer would be at -8 to fix a nuclear power plant, because the whole phenomenon of nuclear fission is outside his worldview. Characters can use the *Cramming* Skill to quickly familiarize themselves with local technology. (If appropriate, the GM can reduce these penalties for cinematic campaigns.)

The modifiers work in reverse when characters use high-tech skills and knowledge against low-tech equipment — like a computer hacker breaking into an obsolete system or a weapon officer on a modern warship trying to hit a target with old-fashioned countermeasures. Advanced tech gets a +3 bonus per Skill Period of difference,

with an additional +5 if the high-tech equipment uses principles unknown to the builders of the low-tech target. (Of course, these bonuses don't apply if the high-tech character is trying to use older tech he's not familiar with; see above.)

ALIEN TECHNOLOGIES

Characters may also run into tech level-related problems when they encounter technology that's highly different from what they're used to. Typically this means technology from other worlds or dimensions, but in some time periods and places it's possible this could apply between two groups of humans from wildly different societies. In a Fantasy campaign it might involve the technologies used by two different humanoid races. Maybe the alien devices and systems require a different size, type, or arrangement of hands than the character's, involve senses the character lacks, or are simply so *different* that the character can't fully or properly comprehend them.

At the GM's discretion, a character dealing with sufficiently alien technology suffers a -1 to -5 Skill Roll penalty. Over time, this penalty may diminish for a specific character as he becomes accustomed to the odd tech, or a character can eliminate the penalty altogether by having a KS or PS in the alien technology on at least an 11- roll.

What constitutes "sufficiently alien" is up to the GM. In a setting that mixes and mingles a wide variety of sentient humanoid species, they may all be able to use each other's technology (or the tech may automatically adapt itself to the species of the user). Large galactic federations and empires automatically spread technological knowledge among their citizens (unless they want to keep them ignorant for purposes of repression). On the other hand, a secretive alien species may refuse to teach anyone about its tech.

ADVANCED, OBSOLETE, AND ALIEN TECH MODIFIERS

Skill Roll Modifier	Situation
-3 per Skill Period difference	Working with Advanced Tech
-5	Working with advanced tech using unknown principles
-3	Working with forgotten tech
+3 per Skill Period difference	For high tech versus low tech contests
+5	For high tech with new principles versus low tech contests
-1 to -5	Working with sufficiently alien technology

As always, the GM can alter any of these modifiers based on the situation, the type of technology involved, the task being attempted, or to make the rules more "realistic" or "cinematic."

TECHNOLOGY COMPATABILITY

Gamemasters and characters may also have to deal with situations where technology created by different species doesn't work together well. If the PCs' ship has a Human-built hyperdrive thruster, a D-coil manufactured by the Perseids may not quite fit or work right. A group of characters could easily find itself in the frustrating situation of having access to plenty of spare parts... that don't work with their equipment!

In this situation, GMs have to decide on the relative compatability of two species' technology, using the following classifications:

Fully Compatible: The two species's tech is totally compatible; it works together automatically, without the need for Skill Rolls.

Mostly Compatible: The two species's tech is largely, but not entirely, compatible. Typically characters have to make an appropriate Skill Roll at -2 to get the two types of tech to function together properly. Even then, there may be a loss of 2-12% efficiency (measured in terms of dice/points of effect, Active Points, or the like, as chosen by the GM).

Partly Compatible: The two species's tech is sometimes compatible, sometimes not. Typically characters have to make an appropriate Skill Roll at -4 to get the two types of tech to function together properly. Even then, there is definitely a loss of 4-24% efficiency, and possibly as much as 10-60% efficiency.

Barely Compatible: The two species's tech works together properly only on rare occasions. Typically characters have to make an appropriate Skill Roll at -8 to get the two types of tech to function together properly. Even then, there is definitely a loss of 10-60% efficiency, and possibly as much as 40-90% efficiency.

Incompatible: The two species's tech is not compatible in any way, and cannot be made to work together at all (or, at best, could only work together for a short period of time if the character makes an Extraordinary Skill roll).

SPECIFIC SKILLS

Here are some additional rules and guidelines pertaining to specific Skills or Skill groups.

Interaction Skills

Because they represent social relationships and methods by which characters interact — intangible things not easily reduced to numbers and rules — Interaction Skills pose some difficulties in the game. The issues they raise that the GM should consider are discussed below.

Unless noted otherwise in the rules for a particular Skill, there's no specific penalty for trying to use an Interaction Skill on more than one target at once — if there were, Oratory in general and many uses of Persuasion, among others, would become effectively impossible. If appropriate the GM can simply resolve the situation by determining each target's resistance to the Skill separately. If the GM thinks that having multiple targets would inconvenience or hinder the character, then he should definitely impose a penalty to reflect that, but tackling two targets at once doesn't automatically entail a penalty.

AFFECT ON PLAYER CHARACTERS

First, to what extent, if any, can Interaction Skills affect PCs?

On one end of the spectrum, some GMs rule that PCs are just as susceptible to Interaction Skills as NPCs. As these GMs see it, in the interest of fairness, all characters should be affected the same way. Furthermore, unless the GM wants to give persuasive, seductive, or clever NPCs Mind Control-based abilities, Interaction Skills are the only way to represent some characters' ability to make other people do what they want or see things their way — a common ability in the fiction and movies that inspire RPGs and RPG characters.

At the other end of the spectrum, some GMs rule that PCs are *never* affected by Interaction Skills. People who subscribe to this viewpoint believe the player alone decides how his character reacts to any given situation. Dice rolls and rules should never dictate a PC's actions unless the rules represent a power, like Mind Control, that can be "forced" on a PC. Aside from that, in the realm of human interactions only the player can determine how his character acts. Thus, Interaction Skills are useless against PCs.

Taking the middle ground are GMs who think that Interaction Skills can affect PCs (at least to some degree) but that give the PC a chance to resist them in a Skill Versus Skill Contest or by other means. Typically these rules also apply to NPCs, which sometimes makes it difficult for PCs to use Interaction Skills on them. *Resisting Interaction Skills,* below, discusses some possible methods for this.

None of these approaches is necessarily "right" or "wrong" for everyone. It's a question of how each GM prefers to run his game, how each group prefers to play the *HERO System,* and the needs and demands of a given genre or setting. In some campaigns it may be appropriate, or even desireable, for PCs to suffer the effects of Interaction Skills, while in others that might be utterly anathema. For most groups, the middle approach — Interaction Skills can affect PCs, but they have a chance to resist them — works well.

EFFECTIVENESS OF INTERACTION SKILLS

Second, how effective can Interaction Skills be? To put it another way, how strong an affect can an Interaction Skill have on a character? In some cases (such as certain uses of Animal Handler or High Society) these questions aren't usually relevant, but for Interaction Skills like Charm, Conversation, Persuasion, and Trading — all of which can direct, to some extent, a character's actions (see above) — they're important issues.

The accompanying table lists *suggested* guidelines for determining the effects of Interaction Skills when the Skill might affect or dictate a character's actions. Some of the examples rely on characters' Psychological Complications (which may instead factor in as a modifier to the roll, see APG 32), but the presence or absence of a Psychological Complication isn't the only determinant — a character can be strongly opposed to or in favor of something without having taken a Psychological Complication to reflect that. The GM can adjust these as he sees fit to make Interaction Skills easier or harder to lose, or alter them to suit specific Interaction Skills better.

By comparison, an Extraordinary Skill Roll or Critical Success with an Interaction Skill is necessary to get a character to do something he's "strongly opposed" to — roughly equivalent to an EGO +20 roll with Mind Control in most circumstances. Greater effects, such as those achieved with EGO +30 Mind Control, generally cannot be achieved with Interaction Skills. (One exception: sometimes a character using Persuasion or the like can convince someone to believe a baldfaced lie that contradicts reality under direct observation. Normally this requires an EGO +30 Mind Control effect but it's specifically mentioned under the Extraordinary Skill rules.)

DURATION OF EFFECT

Third, how long do the effects of an Interaction Skill roll last? For example, if Kozar the Dark Mage successfully uses Charm to sweep the Princess Hallea off her feet, will she always be infatuated with him and/or susceptible to his blandishments, or will she come to her senses sooner or later?

In some cases, the resolution of this issue depends on the circumstances, what the victim has been made to do or believe, or the conduct of the character using the Interaction Skill. When Randall Irons uses Acting to feign an injury and lure Dr. Fang in close, Dr. Fang realizes he was tricked as soon as Randall springs his

surprise attack. When Kozar betrays Princess Hallea, she discovers he was just toying with her affections to get what he wanted. When the mob has time to calm down, its members come to understand they gave in to someone's Oratory roll.

In other situations, the exact duration of an Interaction Skill's effects may be a crucial factor in the adventure. For example, a thief's con job using Acting and Persuasion has to hold up long enough for him to get away with the loot. In this situation the final determination depends on the GM, but he should consider the following factors:

- Is the character still in the presence of the victim "maintaining" the effects of the Interaction Skill? Usually an Interaction Skill remains in effect as long as the character takes steps to "maintain" it and nothing occurs to make the victim question things. Sooner or later, though, even the cleverest story or most charming manner tends to wear thin. Conversely, if the character does nothing to "maintain" the Interaction Skill's effects, it's likely the character will realize he's been tricked or "played" much sooner.
- Have the events of the adventure or the information available to the victim caused him to question the effects of the Interaction Skill? For example, if a character successfully uses Bureaucratics on a low-level bureaucrat, and while doing the task the victim is confronted by his boss, the victim may very well change his mind and stop helping the character.
- If the victim failed a roll to resist the Interaction Skill's effects (see below) but only by a little (say, 1-2), he's more likely to shake off the Skill's effects (or at least question them) than someone who fails by a greater degree.
- How "outrageous" was the initial effect? The more the character asks of the victim, the sooner the victim's likely to realize he's being manipulated.

As a good rule of thumb, the GM should establish a Base Time for the effects of an Interaction Skill to last in a give situation (such as 1 Turn, 1 Minute, 1 Hour, or 1 Day). For every point the Skill Roll succeeds by, add +1 increment (or some fraction thereof). For example, in many cases 1 Hour makes a good Base Time for the duration of an Interaction Skill's effects; in that case, a character whose roll succeeded by 2 would cause effects lasting (1 + 2 =) 3 hours.

Related to the "duration" of an Interaction Skill is the issue of when, if ever, the victim of an Interaction Skill realizes what's happened to him. With some Skills (such as Interrogation) this is immediately obvious, and in most cases once the effects of an Interaction Skill fade the victim is aware he was manipulated (assuming he even cares). But sometimes, as with some uses of Conversation or High Society, a character who's fallen prey to an Interaction Skill may never know what was done to him.

INTERACTION SKILL EFFECTS TABLE

Skill Roll Made By...	Effect
0 (exactly)	Target will go along with suggestions he's inclined to accept anyway (*i.e.,* against which he has no Psychological Complications and which don't seem likely to contradict his self-interest)
	Target believes any statement that doesn't contradict prior knowledge or direct observation and which seems plausible or accurate
1-2	Target will go along with suggestions he's neutral about (*e.g.,* which he's neither in favor of nor opposed to and which don't seem likely to contradict his self-interest)
	Target will believe any statement that doesn't contradict prior knowledge or direct observation, even if it seems somewhat implausible or inaccurate
3-5	Target will go along with suggestions he's mildly opposed to (*e.g.,* which he's somewhat opposed to or has a *Moderate* Psychological Complication against, or which might contradict his self-interest)
	Target will believe any statement that doesn't contradict prior knowledge or direct observation, even if it definitely seems implausible or inaccurate
6-9	Target will go along with suggestions he's opposed to (*e.g.,* which he's somewhat opposed to or has a *Strong* Psychological Complication against, or which are likely to contradict his self-interest)
	Target will believe any statement that doesn't contradict prior knowledge or direct observation, even if it seems highly implausible or inaccurate
10 or more; Critical Success	Target will go along with suggestions he's strongly opposed to (*e.g.,* against which he has a *Total* Psychological Complication — a nun gives in to a Charm attempt, a miser makes a really bad deal using Trading)
	Target will believe patent untruths ("Are you going to believe me or your own eyes?", "The Emperor is wearing new clothes.")

RESISTING INTERACTION SKILLS

Fourth, how can characters resist Interaction Skills used against them? In meta-game terms, the target of an Interaction Skill isn't going to meekly comply with what his "attacker" wants. At the most basic level, the character has to succeed with his Interaction Skill roll before he has any chance of getting what he wants. But that's not necessarily the end of the story.

Because Interaction Skills can directly or indirectly dictate a character's actions, usually to his detriment, most GMs won't allow a character to succeed in using one with just a single Skill Roll. Instead, the target has a chance to resist. Usually this takes the form of a countervailing roll against the "attacker's' Interaction Skill roll in a Skill Versus Skill Contest. In most cases the "resistance roll" is an EGO Roll, but it could be a PRE Roll, a roll with an appropriate Skill, a PER Roll, or the like. The modifiers for Interaction Skills (APG 28) can apply to either roll, as the GM sees fit. For example, if the target of an Interaction Skill roll has a Strong Psychological Complication opposed to the Interaction Skill, the GM could apply the modifier listed on APG 29 as a penalty to the Interaction Skill roll or a bonus to the resistance roll. Modifiers from the Talent *Resistance* and its kin also apply.

Other factors may also affect the roll. For example, in a Star Hero campaign, some alien species may be incapable of lying, and, believing others to be the same, be very gullible (thus granting a bonus to others' Persuasion rolls, or a penalty to their own EGO Rolls to resist).

Typically a character only gets to make one roll to resist an Interaction Skill. However, if the effects of the Skill last for a long time (see above), the GM might allow additional rolls, perhaps at a cumulative penalty similar to that for Breakout Rolls versus Mental Powers.

If the target of an Interaction Skill roll succeeds in resisting the Skill, it means not only that the Interaction Skill failed, but usually that the target realizes the other character was trying to use an Interaction Skill on him (if it isn't already obvious). That could color his reaction to the character, leading to a humiliating incident, a fight, penalties on the character's future attempts to use Interaction Skills on that person, or the like.

Finally, in some cases, such as Trading, the rules specifically note that any person can "resist" them by removing himself from the situation or refusing to interact with the character using the Skill any further.

Acrobatics

A character with Acrobatics has a lot of opportunities to interact with his environment in creative ways. Most commonly, he can find flexible surfaces to bounce off to gain more altitude, hurtle back at a villain in a surprise maneuver, and so forth. You can represent this as a bonus to the character's Leaping when he makes an Acrobatics roll under specific circumstances. A character who intelligently and correctly uses "bouncing" can move faster and farther than normally expected, sometimes allowing him to go what would have been a Full Move's worth of distance and then still take a combat action, or permitting him to close the distance to a target or rescuee before the bad guys realize what he's doing.

In any such situation, the GM decides whether there are flexible surfaces in the hero's vicinity, what directions they can launch a character, and so forth. To use them, a character must succeed with an Acrobatics roll for each bounce. Each bounce gives the character additional meters of Leaping. Some surfaces are difficult to use this way and impose penalties to the Acrobatics rolls. (See the accompanying table for details.)

The "Direction of Movement" column is only a general indicator of direction. Someone leaping onto a diving board, for instance, can bounce straight up, up and forward, up and backward, up and to the side, and so on.

BOUNCING

Surface	Leaping Bonus	Direction of Movement	Acrobatics Penalty	Where Found
Awning	+4m	Upward	+0	Downtown, residential, shopping malls
Banner (Huge)	+4m	Out From Face	-2	Shopping malls, parade routes
Billboard	+4m	Out From Face	+0	Everywhere
Diving Board	+8m	Upward	+0	Swimming pools
Flagpole	+6m	Opposite Angle of Approach	-2	Downtown, government buildings, some homes
Power or Telephone Line	+8m	Opposite Angle of Approach	-4	Everywhere
Tent	+4m	Upward	-2	Campgrounds, fairgrounds

Example: *Freedom Fighter is in combat with Splatter, a knife-wielding villain, who's chasing him all over downtown.*

Freedom Fighter (Leaping 36m) announces, "I'm going to delay my next movement so it takes place at almost exactly the same time as his, giving him the opportunity to pursue me at almost hand-to-hand distance. I'm going to head toward the nearest set of telephone poles on the ground, leap up into the air at the wires, and try to bounce off the wires right back into Splatter's face as a Surprise Move."

The GM says that's possible on this Phase. He has Freedom Fighter make his Acrobatics roll at the -4 penalty for using the telephone wires; even with the penalty, Freedom Fighter makes it by 2. The GM then makes Splatter's PER Roll to see if Splatter detects or anticipates the surprise maneuver; he gives him a -2 penalty (because Freedom Fighter has an excellent Acrobatics roll) and another -2 (because Splatter's following Freedom Fighter too closely to react well). Splatter misses his roll.

Freedom Fighter bounds to the wire, bounces up to them, inverts, hits it with his feet, and bounces straight back at Splatter. His movement rate is 44m (36m for his Superleap, +8m for the bonus from the wire), giving him +7d6 to his Move Through.

The GM can use any method he chooses to determine whether there are flexible surfaces in the hero's vicinity. Typically, downtown city buildings have at least one or two flagpoles and awnings each, and other city areas also often plenty of resources for bouncing; outside city areas, bouncing may become more difficult due to lack of opportunity. He can have the character make a Luck roll to determine whether a particular building has any flexible features (or more than normal), with results other than a 6 indicating the pickings are pretty sparse.

Characters who like to use these bouncing rules may tend to ask for incredible amounts of information about local architectural details when they're in combat. It's best to settle the question of whether there are flexible surfaces nearby very quickly, such as with a Luck roll.

Breakfall

If a character is carrying another character (or any similarly large or bulky object) and wants to use Breakfall, his Breakfall roll suffers a -2 penalty and only protects him, not the carried person/object. If he makes the roll at an additional -2, the Skill's affects also apply to the carried person/object.

Autofire Skills

Here are three new forms of Autofire Skill.

DEADLY SPRAYFIRE ⚠

When a character with this Autofire Skill uses an Autofire attack against a single target, he rolls damage differently to reflect his deadly accuracy and control. Instead of rolling a separate damage roll for each attack that hits, the character makes just one roll: he takes the base damage of the attack and increases it by +1 Damage Class for each additional attack that hit. (When determining how to increase the DCs of the attack, do not count the Autofire as an Advantage.)

The GM should evaluate this Autofire Skill carefully before allowing it in the game. It reflects the "realistic" chance that multiple hits from an Autofire attack will inflict serious injury or death. But because of the way the *HERO System* damage-versus-defenses rules work, it also makes it more likely that a heavily-armored character can be hurt by a low-powered attack. The larger damage roll also makes it more likely the attack will Stun the target.

PRECISE SPRAYFIRE I

The character can use Autofire against a single target with great accuracy. For every full two shots fired at a single target, he receives a +1 OCV bonus. (Thus, 2-3 shots means +1 OCV; 4-5 shots +2 OCV; 6-7 shots +3 OCV; and so on.) However, since the number of Autofire hits depends on how well he makes his Attack Roll, a character using Precise Autofire I can only hit the target one time — he trades the possibility of multiple hits for a greater chance to hit once. The GM may cap the Precise Autofire I bonus at some level, if necessary.

PRECISE SPRAYFIRE II ⚠

The character can use Autofire against a single target with great accuracy. Instead of hitting with one shot for every 2 points he makes his Attack Roll by, he hits with one shot for every 1 point he makes the roll by. The GM may cap the number of hits at some level (such as half the overall number of shots fired), if necessary.

Bureaucratics

Bureaucratics is a broadly-defined Skill that can accomplish a lot of things. In a campaign that involves a lot of interaction between characters and bureaucracies and organizations, as a single Skill it may become too effective. In that case the GM may want to subdivide it into categories, such as the ones listed in the accompanying table. Each category costs 2 Character Points for a PRE-Based Roll (if a character only wants to know a subcategory, that costs 1 Character Point), +1 to the roll with all categories the character knows for each +2 Character Points. A character can use Bureaucratics on a bureaucracy he hasn't purchased at a -2 or greater penalty to all rolls.

CATEGORIZED BUREAUCRATICS

Business Bureaucracies
Subcategories are by type of industry; examples include:
Financial Bureaucracies
Heavy Industry Bureaucracies
Light Industry Bureaucracies
Software Bureaucracies
Civilian Government Bureaucracies
Foreign Relations Bureaucracies
Judicial System Bureaucracies
Public Services Bureaucracies
Public Utilities Bureaucracies
Regulatory Agency Bureaucracies
School System Bureaucracies
Military Bureaucracies
Air Force Bureaucracies
Army Bureaucracies
Marines Bureaucracies
Military Contracting Bureaucracies
Navy Bureaucracies

Combat Skill Levels

Characters cannot apply Combat Skill Levels to improve combat-related Skill Rolls, such as rolls with Tactics or many forms of Analyze.

The standard rules for Combat Skill Levels describe how to use them to increase the damage of an attack. Generally speaking that only applies to attacks that directly injure or damage the target: Blasts, RKAs, STR and HA damage, Drains, and the like. However, at the GM's option, characters can use CSLs to improve the effects of other types of attacks, as follows:

- *Aid:* Treat Aid powers as "5 points per 1d6" powers for purposes of the Adding Damage rules.
- *Dispel:* Treat Dispel powers as "5 points per 1d6" powers for purposes of the Adding Damage rules.
- *Entangle:* Treat Entangles as "10 points per 1d6" powers for purposes of the Adding Damage rules. Every 2 CSLs adds +1d6 BODY and +1 PD/+1 ED to the Entangle (characters cannot increase the BODY and defenses separately, though at the GM's option if the PD and ED aren't equal the CSLs increase them proportionately).
- *Flash:* Regardless of which Sense Groups a Flash affects (or how many), treat Flashes as "5 points per 1d6" powers for purposes of the Adding Damage rules.
- *Telekinesis:* Treat Telekinesis as Normal Damage for purposes of the Adding Damage rules.
- *Transform:* Treat Cosmetic and Minor Transforms as "5 points per 1d6" powers, Major Transforms as "10 points per 1d6" powers, and Severe Transforms as "15 points per 1d6" powers for purposes of the Adding Damage rules.

Characters cannot use CSLs to increase the damage of a Reflected attack or the combat effects of Change Environment.

Cramming ⚠

The following optional rules expand the scope and usefulness of Cramming, primarily by allowing for rolls greater than 8- (which some players find to be a dissatisfyingly low roll for use in the game). The GM should evaluate them carefully before using them in the campaign, since they may pose a significant threat to game balance.

Using these rules, a character can buy the ability to Cram a Skill at a much higher level of proficiency (though this requires more time). The accompanying Optional Cramming Table lists the cost, the highest possible roll the character can acquire with a studied Skill, and the study time required to learn the Skill to that level.

Other standard Cramming rules apply when appropriate. For example, a character using these rules can only learn non-combat Skills, cannot increase his roll in any way, and forgets the learned Skill at the end of the adventure.

A character using these rules can choose not to learn a Skill as thoroughly as he possibly could — perhaps because he's pressed for time and can only learn so much. For example, a character who's paid 20 Character Points for Cramming (13- possible maximum roll) could choose to Cram a Skill only to 11-, using the time listed for that level in the table. This does not allow him to Cram a second Skill at the same time, but at the GM's option if the character has more time to study later on, he can improve his 11- roll to 12- or 13-.

OPTIONAL CRAMMING TABLE

Cost	Maximum Effect	Base Time
5	8- roll *or* 1 point with a Language *or* Any 1-point Skill (such as a TF or WF)	Base Time determined by GM (20 Minutes or more, depending on the complexity of the subject)
8	9- roll	1.5 times Base Time
11	10- roll	2 times Base Time
14	11- roll *or* 2 points with a Language *or* Any 2-point Skill (such as a TF or WF)	3 times Base Time
17	12- roll	4 times Base Time
20	13- roll *or* 3 points with a Language	5 times Base Time

13- or 3 points in a Language is the maximum effect a character can obtain using this rule.

Deduction

Deduction is a flexible and powerful Skill the GM needs to handle carefully. On the one hand, characters should get the benefit of the Skills they pay for. This is particularly true when the character is supposed to be smarter and more deductive than the person playing him. Players want to build and play characters who are deductive geniuses — it's impossible to escape the influence of Sherlock Holmes. It stands to reason that many PCs would be far better at deducing the meaning of clues than the players who play them are, and one of the reasons the *HERO System* has Deduction is to make it possible to play such characters. That means the Skill should offer a significant benefit in the game at appropriate times.

On the other hand, solving a mystery or deducing crucial information on the basis of a Skill Roll can be boring and diminish the fun of the game: "OK, I talk to everyone for a few minutes and read the crime scene reports. Now I want to make a Deduction roll to figure out who the killer is." That's no fun for anyone. Ideally, the *players* should figure out what the clues mean and make the deductions themselves. The sense of accomplishment that brings adds an enormous amount of fun to the campaign.

Fortunately, there are ways around this dilemma:

- Instead of interpreting "successful Deduction roll" as "character immediately figures out all the answers," think of it as "character gains a little bit of insight toward the ultimate goal of solving the mystery." In other words, when a PC succeeds with a Deduction roll, give him an extra tidbit of information or a little help toward figuring out the answer, n*ot* the whole solution on a silver platter. The more he makes the roll by, the more information you give him (or the more important a hint you offer). For example, suppose the PCs are trying to figure out a riddle Anagram left behind. The answer is "Iron Curtain." If a PC makes his Deduction roll exactly, maybe the hint you provide is "Winston Churchill" (who coined the term). If he makes it by 1-3, maybe the hint is "Soviets" or "Warsaw Pact." If he makes it by 4 or more, maybe you tell him "steel drapes" or the like. In short — Deduction should help the players figure out the answer, not provide the answer for them directly.

Similarly, Deduction provides a rationale for the GM to help the players out if they get stumped. If a character succeeds with a Deduction roll, the GM can provide a gentle hint or an additional clue — something to get the players' minds working on a different, and hopefully more productive, track.

- Look at each PC's Knowledge Skills. If a PC has a Knowledge Skill that's related to the clue, let him use the KS as a Complementary Skill. If the Deduction roll succeeds, provide more information than you otherwise would — the PC knows more about the subject, so it stands to reason he ought to have more insight on the problem.
- Prepare for the use of Deduction in advance. If you expect the PCs to investigate a clue, prepare a list of potential answers. For each PC who makes a Deduction roll, give the players one randomly-chosen item from the list (if a character makes his roll by 4 or more, maybe he gets two items). Then let the players analyze the items they've got and figure out the right one (even if they have to check out every location on the list in person, or find every object listed). It's a lot easier to work from a list of possibilities than it is to try to pull one right answer out of the ether.
- In the comics, television, and movies, it often seems that once a character hits on the right answer to a mystery, he instinctively knows he's right. A group of players, on the other hand, can spend hours debating the possible meaning of a clue, even if one of the ideas they had five minutes into the discussion was the right answer. To keep this from happening, try to hint at which answer is correct... or you could even go so far as to say, "Bob's suggestion sounds like a pretty good one — it seems right to you."

Looking at it another way, a successful Deduction roll doesn't necessarily mean a character's suddenly realized what the right answer is, or what's going on. It could just mean that he realizes one of the possible answers couldn't be the right one. In other words, Deduction helps him narrow down the possibilities (so the character's player can eventually reach the right conclusion) rather than giving him the right answer in *deus ex machina* fashion.

The GM may also want to consider secretly making characters' Deduction rolls himself, then providing them with information tailored to account for the success or failure of a role. A character may *think* he's right when he deduces the answer to a problem, but he can't necessarily *know* he's right (especially if he defines his Deduction as "I make intuitive leaps of thought that I can't explain" or some similar special effect). Keeping the results of the roll hidden lets the GM create that effect of uncertainty if he wants it.

Defense Maneuver

For some campaigns, the odd cost structure of Defense Maneuver may not work well. As an alternative, you can convert it into a standard Agility Skill with a 9 + (DEX/5) roll. Using Defense Maneuver I requires a standard Skill Roll (the roll itself takes no time, but the Skill still requires a Half Phase to use). To use Defense Maneuver II, the character must make his roll at a -2 penalty; for Defense Maneuver III at a -4 penalty; for Defense Maneuver IV at a -6 penalty. This form of Defense Maneuver IV can only make DCV-affecting Levels Persistent for 1 Hour (or some other timeframe chosen by the GM); to extend the effect beyond that time the character has to make another roll.

Defensive Attack

A character with this optional new Combat Skill has a heightened ability to avoid attacks in combat. He only suffers a -2 DCV when making a Multiple Attack (6E2 73), rather than his DCV being halved. (This includes Multiple Attacks made with the *Two-Weapon Fighting* Skill.) No roll is required, and all other Multiple Attack penalties and rules apply.

Defensive Attack costs 10 Character Points and applies to all forms of Multiple Attack. If a character only wants to be able to use it with Multiple Attacks only featuring HTH attacks, or only featuring Ranged attacks, he can apply a -1 Limitation, *HTH Multiple Attacks Only* or *Ranged Multiple Attacks Only.*

Language

The *Language* Skill has an unusual cost structure, different from any other Skill in the *HERO System.* For the sake of consistency, GMs may wish to convert Languages into an Intellect Skill costing 3 Character Points for the standard (9 + (INT/5)) roll. The accompanying table lists the roll that matches various degrees of fluency. Converting Languages into an Intellect Skill does not prevent you from using the Language Familiarity Table.

If the GM uses this system, you can apply standard Skill Modifiers to Language rolls, representing such factors as the thickness of a speaker's accent, how long he speaks, ambient noise, complex phrasing, the use of technical vocabulary, and similar factors. In most cases, characters won't have to make any sort of roll to speak normally. But if a roll is necessary, then even a character with just an 8- or 11- gets a +3 to +5 bonus for "routine" speech, making the roll a virtual certainty in most situations. Similarly, with the GM's permission a character could make Language rolls as Complementary Skill Rolls when using Skills like Conversation, Oratory, and Persuasion — if the roll succeeds, he's chosen "just the right word" or made the right turn of phrase.

Even if the GM chooses to use the standard cost structure for Languages, you can use the rolls indicated in the accompanying table in situations when characters need to make rolls to use their Languages or understand a speaker.

LANGUAGE AS INTELLECT SKILL

Level Of Fluency	Roll	Cost
Basic Words	6-*	½ (no Skill Levels apply)
Basic Conversation	8-	1 (no Skill Levels apply)
Fluent Conversation	10-	2 (no Skill Levels apply)
Completely Fluent, with accent	12-	3 (INT Roll)
Idiomatic, native accent	14-	Varies
Imitate dialects	16-	Varies

***:** If the GM uses this system, the Untrained Skill Use rules do not apply to Languages.

Martial Arts

The Optional Combat Maneuvers in 6E2 (and in Chapter Six of this book) aren't appropriate for every campaign — but they may be appropriate for individual characters even in a campaign that doesn't let every character use them. If appropriate, the GM might allow characters to buy Optional Combat Maneuvers as "Martial Maneuvers." The GM may, if desired, apply the "characters must buy a minimum of 10 Character Points' worth of maneuvers" rule from Martial Arts to Optional Combat Maneuvers. (Alternately, maybe characters must spend 10 Character Points overall on some combination of Martial Maneuvers, Optional Combat Maneuvers, or both.)

The accompanying table lists the suggested Character Point costs for various Optional Combat Maneuvers as Skills. Unless the GM rules otherwise, Optional Combat Maneuvers as Skills work just like normal Optional Combat Maneuvers that characters can use for free.

OPTIONAL COMBAT MANEUVERS COST

Optional Combat Maneuver	Cost
Choke	3 Character Points
Club Weapon	3 Character Points
Cover	3 Character Points
Dive For Cover	5 Character Points
Hipshot	3 Character Points
Pulling A Punch	3 Character Points
Roll With A Punch	3 Character Points
Snap Shot	4 Character Points
Strafe	5 Character Points
Suppression Fire	4 Character Points

Power

The *Power* Skill can be amazingly creative and fun, but the GM should take care to control it carefully. Power isn't a cheap substitute for a Variable Power Pool, and shouldn't be used as one. It's intended to give characters greater flexibility and the GM a way to keep the story moving forward in a dramatically appropriate fashion without worrying about whether a character has spent Character Points for every single possible application of his powers. Characters shouldn't use Power to provide Advantages for their Powers or to overcome Limitations (except in rare circumstances), nor should it provide bonuses in combat. Characters who want to perform a particular "trick" or "power stunt" frequently should pay Character Points for it (especially if it has an effect on combat). For example, the GM might let a character with *Strength Tricks* make a roll and use his awesome STR to squeeze coal so hard it turns into diamond (a type of Transform) — once. If he wants to do it again, he should buy it as a separate ability.

As a a suggested guideline, the GM should examine the pregenerated abilities found in various *HERO System* supplements, or similar lists he's prepared on his own for his campaign. A character with an appropriate form of the *Power* Skill who succeeds with a Skill Roll can create an effect with no more than *thirty percent* of the Active Points of any of those abilities. Any Advantages on an ability still apply to the Power-created ability, and must fit within the Active Point total; any Limitations on the ability also apply to the Power-created ability, but do not reduce the cost or somehow make it easier for the character to create. If this isn't enough to get at least 1-2d6 of power or some similar quantifiable level of effect, the GM can allow the character to access more Active Points. However, he may impose a penalty on the roll (such as -1 per additional 1-10%) or any other restrictions he deems appropriate.

If the character doesn't necessarily need more than ten percent of the Active Points to achieve a worthwhile effect, but wants to access more of the points for some reason, he may do so, but at the GM's option must apply to the ability at least -½ worth of Limitations per +1-10% Active Points *in addition to* any Limitations listed in the ability's writeup. These extra Limitations cannot include Requires A Skill Roll, since the character has to make a Skill Roll with his *Power* Skill to do this in the first place. Limitations like Concentration, Extra Time, Increased Endurance Cost, and Side Effects are the most appropriate, but they're not necessarily the only applicable ones.

POWER IN HIGH-POWERED CAMPAIGNS

In some campaigns, the guidelines above are too restrictive — the GM wants characters to have even more flexibility, combats to be more freewheeling, and the powers to be even more spectacular. In that case the GM should consider some or all of the following, more open, guidelines:

- A character who succeeds with a Power roll can alter a*ll* of the Active Points in a power, but cannot increase them. For example, he could transform a Blast 12d6 (60 Active Points) into a Blast 8d6, Double Knockback (60 Active Points), but not into a Blast 10d6, Double Knockback (75 Active Points).
- A character who succeeds with a Power roll can create an entirely new power of the same special effect as one of his other powers, but with no more Active Points than the most similar power he has with the smallest number of Active Points. (Typically this is most appropriate for characters who have a lot of powers built around a common, easily-identifiable special effect, such as "Fire Powers" or "Weather Control.")
- A character who succeeds with a Power roll can add up to a +½ worth of Advantages to an existing power, or remove up to -½ worth of Limitations.

Another possible change for Power for higher-powered campaigns is to make it an Everyman Skill (or perhaps give every character a free Proficiency with it). That way every character has *some* ability to alter his powers or develop new ones "on the fly," and characters who want to be really good at it can purchase the full Skill.

REPEATED USE OF POWER

Typically it's recommended that a character who wants to use a "power stunt" repeatedly pay Character Points for it, rather than using the *Power* Skill to "create" it. However, the GM can permit repeated use, but at a penalty — such as a cumulative -1 or -2 to the Power roll per use, or perhaps a flat -3. That gives the character the freedom he wants, but at a balancing price, and it encourages him to spend Character Points on the ability when he can afford to.

POWER AND HEROIC ACTION POINTS

In campaigns that use the Heroic Action Point rules (6E2 287), the GM can use them as a substitute for, or supplement to, the *Power* Skill.

One way to do this is to replace Power with HAPs (at least for purposes of altering existing powers or creating new ones; it would remain in the rules for use as a Required Roll and the like). Instead of requiring a character to succeed with a Power roll to manipulate one of his powers, the GM could require him to spend HAPs. The cost would depend on the nature of the campaign. For more high-powered, less restrictive games, a single HAP would be enough to accomplish anything the *Power* Skill can accomplish. For more controlled campaigns, a character might have to spend 1 HAP per 10 Active Points of power he wanted to use/change.

Another option is to allow characters to augment Power with HAPs. In this case, the GM allows Power to create small amounts of change or new powers, such as the 30% rule discussed above. To create more powerful abilities, characters have to pay HAPs (either a flat cost such as 2 HAPs, or one depending on the power, like 1 HAP for every +10% of power beyond 30%).

Skill Levels

In some campaigns, GMs may find that Movement Skill Levels are too useful. They not only improve a character's Turn Mode, they can also sometimes improve his DCV while he's moving, help him to accelerate and decelerate, and so on. That's a lot of utility for 2 Character Points per Level! If this is causing problems in the campaign, the GM should increase the price of "MSLs" — at least to 3 Character Points per Level, and possibly 5, for Levels that only apply to one type of movement, and at least to 5 Character Points for Levels that apply to all modes of movement.

Alternately, the GM could change the cost of Movement Skill Levels for a single Movement Power based on the Power they apply to, since they're more useful for some Movement Powers than others. The accompanying table has a list of suggested costs.

ALTERNATE MOVEMENT SKILL LEVELS

Power	Cost Per 1 Movement Skill Level
Extra-Dimensional Movement	N/A
FTL Travel	N/A
Gliding	3 Character Points
Flight	3 Character Points
Leaping	2 Character Points
Running	2 Character Points
Swimming	2 Character Points
Swinging	2 Character Points
Teleportation	2 Character Points
Tunneling	1 Character Point

Trading

The most common use for Trading is to negotiate prices for goods, commodities, services, and other things someone can buy or sell. Each character in the negotiation wants to obtain the best price or terms for himself, so this is a Trading Versus Trading Contest (if one character doesn't have Trading, he can make an INT Roll at -2). You can handle the specifics of the bargaining in one of three ways. Each of them has a Base Time of 1 Turn, but the GM can raise this if necessary based on the circumstances.

SET PRICE STARTING POINT

The first (and generally simplest) method is for the GM to determine a fair market price for the item or service in question as a "baseline" for the negotiations. The character who wins the Contest gets that price, +10% per point he won the Contest by if he's selling or -10% per point he won the Contest buy if he's buying.

However, there are two caveats to this. First, the GM may set some minimum or maximum price; characters shouldn't be allowed to use Trading to obtain ridiculous bargains or charge absurd prices. Second, Trading is not Mind Control. Normally you should let the Trading roll determine the outcome of a price negotiation. But ultimately either character can choose to walk away from the deal regardless of what the dice say if that's the most appropriate thing to do based on common and/or dramatic sense.

DIFFERING STARTING PRICES

The second method is for each character involved in the negotiation to set a starting price. If both agree, the deal is made — but usually the seller's proposed price exceeds the buyer's proposed offer. (If the seller's stated price is lower than the buyer's offer, the deal takes place at the seller's price.) The characters then engage in a Trading Versus Trading Contest. The loser of the Contest must adjust his proposed price by a minimum of 10% of the buyer's proposed offer per point he lost the Contest by — the seller adjusts downward (*i.e.,* lowers his price), while the buyer adjusts upward (*i.e.,* raises his offer). The loser may adjust his price/offer by a greater amount if desired (perhaps to bring the deal to a quick conclusion). The adjusted price becomes a new threshold for that character — even if that character wins one of the future rolls, he can't re-adjust his price back to its starting total. (The same applies to all future rolls.)

Now the characters have another Trading Versus Trading Contest, with the same results (but governed by the threshold rule stated above). This goes on until the two agree on a price or one party gives in and agrees to the other's latest offer. Regardless of the dice rolls, at no time does the buyer have to raise his offer above the seller's current price, or the seller lower his price below the buyer's current offer — if that happens, the current price/offer takes effect.

Example: *Stonehand the Dwarf and Azarath the Mage are negotiating a sale — Stonehand wants to pay Azarath to enchant his bracers so that they allow Stonehand to attack more swiftly. Stonehand offers 200 silver royals for the job; Azarath counters with 600 silver royals. They now engage in a Trading Versus Trading Contest. Azarath's roll succeeds by 6 and Stonehand's by 3, so Stonehand must raise his offer by ((6-3) x 10% of buyer's offer =) 60 silver royals, to 260 royals. That's still not enough for Azarath, so the Contest goes on. The next round Stonehand makes his roll by 4, while Azarath fails. Therefore Azarath must lower his asking price by ((4-0) x 10% of buyer's offer =) by 80 silver royals, to 520 royals. The two are getting closer, but they're not in agreement yet. Negotiations continue....*

NO SKILL CONTEST

Alternately, the GM can use the first method but dispense with the Trading Versus Trading Contest and just let the PC make his Trading roll. If the roll succeeds exactly, the character pays the GM-set fair market price (if buying) or receives it (if selling). If he succeeds by more than that, for each point he succeeded by he lowers (if buying) or raises (if selling) the price by 10%. If the roll fails, for each point it fails by he raises (if buying) or lowers (if selling) the price under the impression he's getting a bargain or making a killing. The same restrictions and guidelines as for the first Contest method apply.

MODIFIERS

Several circumstances can modify Trading rolls to negotiate prices. Unusually high or low demand affects prices, though the GM should determine whether the seller's or buyer's roll is modified (both are not, just one). If the goods are obviously stolen or illegal (the buyer can make a Streetwise roll, or an INT Roll at -2, to figure this out), that tends to put the buyer in a better position — it gives him another negotiating point in his favor and puts pressure on the seller to get rid of the "hot" items as soon as possible.

NEGOTIATING DEALS

Characters can also use Trading to negotiate deals, contracts, agreements, and other business arrangements. You can handle this like a price negotiation, except that the parties are dickering over terms of the agreement rather than prices. The loser in the Trading Versus Trading Contest has to concede some point of contention rather than alter his price; the GM determines what constitutes a valid concession. Typically negotiating deals has a Base Time of 1 Hour, but the GM may reduce this for easy deals or raise it for complex ones.

Transport Familiarity

The accompanying table has an expanded list of TFs that characters can purchase.

TRANSPORT FAMILIARITY CATEGORIES

Category	Examples
Riding Animals (A) ***(includes use of animals in teams, if applicable)***	
Camels	
Dogs	
Equines	*Horses, donkeys, mules, unicorns*
Flying Beasts	*Griffins, pegasi, rocs, giant dragonflies*
Huge Beasts	*Elephants*
Swimming Beasts	*Whales, sharks, giant fish*
Other (purchased by animal type)	
Muscle-Powered Ground Vehicles (B)	
One-Wheeled Muscle-Powered Ground Vehicles	*Unicycles*
Two-Wheeled Muscle-Powered Ground Vehicles	*Bicycles, velocipedes*
Carts & Carriages [also requires TF: appropriate riding animal]	
Chariots [also requires TF: appropriate riding animal]	
Common Motorized Ground Vehicles (A)	
Small Motorized Ground Vehicles	*Cars, pickups, jeeps, ambulances, taxis*
Large Motorized Ground Vehicles	*Trucks, tractor-trailers, buses*
Uncommon Motorized Ground Vehicles (B)	
Two-Wheeled Motorized Ground Vehicles	*Motorcycles, motoscooters*
Construction & Agricultural Vehicles	*Bulldozers, steamrollers, tractors, combines*
Tracked Military Vehicles	*Tanks, IFVs, some APCs*
Wheeled Military Vehicles	*Reconnaissance vehicles, some APCs*
Railed Vehicles	*Trains, cablecars, maglev trains, subways*
Air Vehicles (B)	
Balloons & Zeppelins	*Hot air balloons, zeppelins, blimps*
Small Planes	*Propeller planes, autogyros, gliders, volantors*
Large Planes	*Jumbo jets, C130 transports*
Combat Aircraft	*F15s, F117As, B2s*
Helicopters	
Cold-Weather Vehicles (B)	
Bobsleds	*Bobsleds, luge*
Sleds	*Sleds, sledges, sleighs, dogsleds (also requires TF: Dogs)*
Snowmobiles	

Category	Examples
Water Vehicles (B)	
Rafts	
Small Rowed Boats	*Canoes, rowboats, kayaks*
Large Rowed Boats	*Biremes, triremes, Fantasy slave ships*
Small Wind-Powered Boats	*Sailboats, longboats, racing yachts*
Large Wind-Powered Boats	*Clipper ships, galleons*
Small Motorized Boats	*Speedboats, CRRCs/Zodiacs*
Large Motorized Boats	*Pleasure yachts, tugboats, barges, tankers*
Small Military Ships	*Cutters, PT boats*
Large Military Ships	*Destroyers, frigates, aircraft carriers*
Submarines	
Recreational Vehicles (B)	
Hanggliding	
Jetskis	
Parachuting, Basic	
Parachuting, Advanced (requires Basic Parachuting)	
SCUBA	
Skateboarding	
Skating (iceskating and rollerskating)	
Skiing, Snow	
Skiing, Water	
Snowboarding	
Surfing	
Windsurfing	
Science Fiction & Space Vehicles (A) ***(includes FTL travel, if any)***	
Early Spacecraft	*Apollo, Mercury, Gemini projects*
Spaceplanes	*Space Shuttle*
Grav Vehicles/Hovercraft	
Personal-Use Spacecraft	*Consumers' spacecraft*
Commercial Spacecraft & Space Yachts	
Industrial & Exploratory Spacecraft	
Military Spacecraft	
Mobile Space Stations	
Mecha (A)	
Anthropomorphic Mecha	
Beast-Shaped Mecha	
Hybrid/Shapeshifting Mecha	

A: Can be purchased as a group

B: Must be purchased separately

1. Riding Animals: In a Fantasy campaign, where Riding Animals is the prominent TF group, GMs may wish to forbid characters to purchase it as a group.

2. Parachuting, Basic and Advanced: Basic Parachuting allows the character to make basic use of a parachute safely, and assumes the character is performing typical MAMO (Medium Altitude, Medium Opening) jumps. Advanced Parachuting (which can only be bought by characters who know Basic Parachuting) allows the character to perform more difficult jumps or aerial stunts; it includes military parachute training and LALO, HALO, and HAHO jumps.

3. Science Fiction & Space Vehicles: This TF category encompasses the largest number and variety of vehicles. Gamemasters running Future-era campaigns should consider expanding this category extensively to suit their campaigns. For example, different spacefaring species's ships might require different TFs (one species's controls and methods of construction may differ greatly from another's; a species's arrangement of manipulatory limbs may lead to vastly different controls), by planet or sector of space, by government, and so forth. Science Fiction vehicles include FTL travel if available.

At the GM's option, Grav Vehicles/Hovercraft may be placed under the "Uncommon Motorized Ground Vehicles" or "Air Vehicles" categories instead.

Weapon Familiarity

The accompanying table has an expanded list of WFs that characters can purchase.

NOTES

* = All characters have this Weapon Familiarity for free

1: Fist-Loads includes brass knuckles, *bagh nakh,* the *yawara,* rocks or rolls of quarters held in the fist, and similar weapons. It also includes tasers that the user must touch to the victim's skin (the type of taser that fires small metal darts requires WF: Small Arms).

2: Polearms and Spears includes the use of Bayonets attached to rifles (Bayonets wielded on their own are considered Blades).

3: Flails includes the flail, the morningstar, and other articulated clubs not listed elsewhere.

4: Thrown Rocks includes Molotov cocktails and other crude missile weapons. All characters know this WF for free.

Related to Thrown Rocks are some hand-held dropped weapons, like caltrops, marbles, and the like. Such weapons do not require a WF to use.

5: Bows includes pellet bows/sling bows.

6: Crossbows includes pellet crossbows and the *chu-ko-nu* (Chinese repeating crossbow).

7: Thrown Knives, Axes, and Darts includes shuriken and *chakram.*

8: Grenade Launchers includes both GLs which are separate and those which are a component of another weapon, and also includes rifle grenades. Examples include the U.S. M79 and M203.

9: General Purpose/Heavy Machine Guns includes the U.S. M60, M61A1/M168, M134 Minigun, Vulcan, M249 SAW, and similar weapons. However, if mounted in a vehicle, these weapons usually require a WF: Vehicle Weapon to use.

10: Shoulder-Fired Weapons is a broad category that includes anti-tank weapons (such as the U.S. M20 bazooka, M72 A2, and M47 Dragon), man-portable SAMs (such as the U.S. Stinger or Russian SA-7 Grail), hand-held recoilless guns (such as the Armbrust), and some man-guided missiles (such as TOWs, FOGs, laser-guided missiles, and so forth).

11: Early Emplaced Weapons includes all such weapons developed prior to World War I, such as cannons, bombards, culverins, and early howitzers. The GM may wish to break this category out into several separate categories for campaigns set in periods in which such weapons are commonplace (such as a pirates campaign or Civil War campaign).

12: Vehicle Weapons must be purchased per vehicle (for example, WF: M1A Abrams Weapons, WF: F-15 Weapons), at 1 point per vehicle. Bombs and missiles dropped or launched by aircraft, tank guns, and torpedoes are all examples of Vehicle Weapons. Mines do not require a WF (building and working with them is a function of Demolitions), though vehicle-based minelaying weapons require a Vehicle Weapons WF.

Advanced land-based missile systems and some other weapons are controlled via Systems Operation (*q.v.*), not a WF.

WEAPON FAMILIARITY CATEGORIES

Common Melee Weapons
(may be purchased as a group)
- Unarmed Combat
- Axes, Maces, Hammers, and Picks
- Blades
- Clubs*
- Fist-Loads* (1)
- Polearms and Spears (2)
- Two-Handed Weapons

Uncommon Melee Weapons
(must be purchased separately)
- Flails (3)
- Garrote
- Lances
- Nets
- Spread-The-Water Knife
- Staffs
- Whips

Common Martial Arts Melee Weapons
(may be purchased as a group)
- Chain & Rope Weapons
- Karate Weapons
- Mourn Staff
- Ninja Weapons
- Rings
- Staffs
- War Fan

Uncommon Martial Arts Melee Weapons
(must be purchased separately)
- Flying Claw/Guillotine
- Hook Sword
- Kiseru
- Lajatang
- Pendjepit
- Rope Dart
- Three-Section Staff
- Urumi
- Wind and Fire Wheels

Common Missile Weapons
(may be purchased as a group)
- Thrown Rocks* (4)
- Bows (5)
- Crossbows (6)
- Javelins and Thrown Spears
- Thrown Knives, Axes, and Darts (7)

Uncommon Missile Weapons
(must be purchased separately)
- Arare
- Atlatl
- Blowguns
- Boomerangs and Throwing Clubs
- Early Thrown Grenades
- Fukimi-Bari
- Iron Mandarin Duck
- Metsubishi
- Sling
- Sling Bow
- Staff Sling
- Steel Olive
- Steel Toad
- Thrown Chain & Rope Weapons
- Thrown Sword
- Wishful Steel Ball

Siege Engines
(may be purchased as a group)
- Ballista
- Catapult
- Onager
- Siege Tower
- Spring Engine
- Trebuchet
- Turtle

Early Firearms
(may be purchased as a group)
- Early Muzzleloaders
- Matchlocks
- Wheellocks
- Flintlocks
- Early Percussion Firearms (up to approximately 1850)

Small Arms
(may be purchased as a group)
- Assault Rifles/LMGs
- Handguns
- Rifles
- Shotguns
- Submachine Guns
- Thrown Grenades

Uncommon Modern Weapons
(must be purchased separately)
- Flamethrowers
- Grenade Launchers (8)
- General Purpose/Heavy Machine Guns (9)
- Shoulder-Fired Weapons (10)

Emplaced Weapons
(may be purchased as a group)
- Early Emplaced Weapons (11)
- Anti-Aircraft Guns
- Anti-Tank Guns
- Artillery
- Howitzers
- Mortars
- Recoilless Guns

Vehicle Weapons (12)
(must buy per vehicle)

VEHICLE WEAPONS

As noted in the Weapon Familiarity Categories table, a character can buy a WF with *Vehicle Weapons* for any specific type of vehicle (such as an Abrams tank or a Hornet fighter plane) for 1 Character Point. Gamemasters may, if desired, allow characters to buy 2-point WF categories with all types of weapons on all vehicles of a particular type. See the accompanying text box for some examples. Using this system, a character in a Vehicle-oriented campaign can shift from Vehicle to Vehicle without worrying about Unfamiliar Weapon penalties.

VEHICLE WEAPON FAMILIARITIES

Each of these categories is a 2-point category which may be purchased as a group.

Airplane Weapons
Airplane Guns
Airplane Missiles
Dropped Bombs
Automobile Weapons
Automobile Beam Weapons
Automobile Dropped Weapons
Automobile Grenade Launchers
Automobile Guns
Automobile Incendiary Weapons
Automobile Missiles
Helicopter Weapons
Helicopter Grenade Launchers
Helicopter Guns
Helicopter Missiles
Dropped Bombs
Mecha Weapons
Mecha Beam Weapons
Mecha Guns
Mecha Hand-Held Ranged Weapons
Mecha Hands
Mecha Melee Weapons
Mecha Missiles
Modern Naval Vessel Weapons
Naval Guns
Naval Missiles
Naval Torpedoes
Sailing Ship Weapons
Light Cannons
Medium Cannons
Large Cannons
Ship-Based Siege Weapons
Starship Weapons
Starship Beam Weapons
Starship Guns
Starship Missiles
Submarine Weapons
Submarine-Launched Missiles
Submarine Torpedoes
Tank Weapons
Tank Grenade Launchers
Tank Main Guns
Tank Missiles
Tank Secondary Guns

SCIENCE FICTION

The number and types of weapons available to characters is greater in Science Fiction than any other genre, given the panoply of worlds, cultures, and technological levels to choose from. It's not uncommon for characters in a Star Hero game to carry everything from clubs, knives, and swords to blasters and disintegrators. See the accompanying table for suggested additions to the WF categories for most Science Fiction campaigns. The GM should alter or add to the existing lists to better suit his specific campaigns.

Gamemasters may want to consider making each planet's or species's weapons a separate WF. Thus, a character with WF: Ackálian Common Melee Weapons or WF: Human Small Arms can't use Varanyi Common Melee Weapons or Denebian Small Arms without suffering the normal nonproficiency penalty. Depending on a species's number of limbs or fingers and similar considerations, other species may find it difficult or impossible to use their weapons, regardless of proficiency.

STAR HERO WEAPON FAMILIARITIES

Uncommon Melee Weapons (add to existing category)
Electric Whip
Energy Blades
Inertial Gloves
Stun Rods
Small Arms (add to existing category)
Liquid-Propellant Rifles
Gauss Guns
Polymer Guns
Rocket Pistols
Rocket Rifles
Missile Guns
Sonic Stunners
Tranquilizer Dart Guns
Beam Weapons (may be purchased as a group)
Laser Pistols
Laser Rifles
Electron Beam Weapons
Particle Guns
Energy Weapons (may be purchased as a group)
Ion Blasters
Plasma Guns
Disintegrators

Alternately, for some campaigns GMs may prefer to establish a *Science Fiction Small Arms* category including all weapons listed in the Small Arms, Beam Weapons, and Energy Weapons categories of this table.

SKILL ENHANCERS

Here are some additional Skill Enhancers the GM can allow characters to buy, and other suggestions for ways that characters can affordably buy lots of Background Skills. (See also *Other "Universals,"* APG 48.)

EXPERT ⚠

Whereas the standard Skill Enhancers are all restricted by the type of Skill(s) characters can buy through them, Expert is restricted by subject. A character can buy any Language, KS, PS, or SS through Expert, provided they all relate to a subject about which he is an expert or for which he has an innate talent. Examples might include Russia (Language: Russian, KS: Russian History And Culture, AK: Russia, KS: Russian Art And Literature), Serial Killers (KS: Serial Killers And Serial Killing, SS: Psychology/Criminal Psychology, PS: Criminal Profiling), or Electrician (KS: Electrical Systems, PS: Electrician, SS: Electrical Engineering).

Expert costs 3 Character Points and has the same effect as other Skill Enhancers: it reduces the cost of all Skills bought through it by -1 Character Point (minimum cost of 1 point, as always). However, to prevent abuse, the GM may want to require characters to buy a minimum of three Skills through Expert; with fewer than that, it's difficult for a character to argue that he has a thorough, "expert" grasp of all the facets and complexities of a subject.

Expert does not "stack" with other Skill Enhancers, giving two Enhancer cost reductions to a single Skill. If a character buys a Background Skill that could go in more than one Skill Enhancer, he must pick one Skill Enhancer to put a given Skill under, and that's the only one it gets a cost break for.

The GM should examine any purchase of Expert carefully to make sure it fits the character, is properly defined, and won't unbalance the game. Characters should use it to define relatively narrow subjects in which they're extremely well-versed, not treat it as an excuse to save points on any Background Skill they want to have and can loosely link together.

PILOT

A character with Pilot is adept at learning how to drive or pilot vehicles of all sorts: air, sea, and land, even riding animals. He buys Transport Familiarities for -1 point, thus allowing him to buy a 2-point TF category for only 1 Character Point. He may also purchase two 1-point TFs for only 1 point (thereby halving the cost).

Other Ways To Buy Lots Of Background Skills

If Skill Enhancers and Universals aren't quite what your campaign's looking for, consider these options. (But don't forget the guidelines discussed on 6E1 31 — there's generally no need to spend points on a Background Skill so obscure it's just for "color" and won't have any significant effect on game play.)

BACKGROUND SKILL MULTIPLIERS

In campaigns where GMs like characters to have a *lot* of Background Skills as a way of differentiating themselves or covering a lot of areas of knowledge within the PC group, Skill Enhancers may not go far enough. Even with the point savings they provide, buying a lot of Background Skills may become prohibitively expensive.

One possible solution for this is to treat Skill Enhancers as "Skill Multipliers." Instead of making the rolls for Background Skills cheaper, a Skill Multiplier lets a character buy a lot of particular type of Background Skill for a low cost. The accompanying table indicates the cost of Skill Multiplier for both an 11- roll or an INT Roll with each Skill (or basic conversation and fluent conversation with Languages). Use the same categories and names for Skill Multipliers as for Skill Enhancers (*i.e.,* the *Jack Of All Trades* Skill Multiplier for PSs; the *Scholar* Skill Multiplier for KSs).

If a character wants to reduce the roll with a particular Background Skill, he can do so (this doesn't count as "selling back" a Skill or provide him with any point savings; it's just a way of better defining the character). If a character wants to improve the roll with a specific Background Skill, he can do so by paying the usual cost. If he wants to improve the roll with a group of the Background Skills he's bought, he should buy Skill Levels.

SKILL MULTIPLIERS TABLE

Cost (11- roll)	Cost (INT Roll)	Number Of Background Skills
2	3	1
4	6	2-3
6	9	3-4
8	12	5-8
10	15	9-16
12	18	17-32
14	21	33-64
16	24	65-125
...and so on		

The GM should carefully monitor the use of Skill Multipliers. They're intended to provide a cost-effective way for characters to buy a lot of obscure Background Skills to better define their non-combat abilities, or in settings and genres where it's appropriate for characters to know lots of Background Skills (like some *Pulp Hero* games). In campaigns where obscure SSs, KSs, and PSs tend to come into play frequently, the GM should increase the cost of Skill Multipliers until they're balanced for the utility they provide.

BUYING BACKGROUND SKILLS IN MID-GAME

Rather than requiring a character to buy and list every Background Skill he should know (based on his character's history, origin, prior life experiences, and so forth), the GM simply requires him to have a well-defined background that states, in part, the sorts of Background Skills the character has. During character creation, the character pays Character Points for at least a few of these Skills — the ones most central to his character concept, or which the player or GM think are likely to be used in the game frequently. The player then makes sure to always have a few unspent Character Points or Experience Points on hand. During the course of the game, if he encounters a situation where he needs one of the obscure Background Skills that are noted as being "within his character concept" but that he hasn't paid for, he can immediately use his saved points to buy it. After all, according to his character concept he's actually known that Background Skill all along — it's just that until this point in the campaign, there's been no use for it and thus no reason to spend points on it.

In short: if the GM's willing to trust the players not to abuse the privilege, until a Background Skill actually matters for the game, there's no reason to make a character pay points for it. As soon as it does matter, the character should pay for it if he wants to use it.

VARIABLE POWER POOL

The ultimate way to buy a *lot* of Background Skills for a minimal point cost is for the GM to allow characters to buy Variable Power Pools for Background Skills. With even a 10-point Pool, a character can have a lot of Background Skills active at once for even fewer Character Points than a Universal. The downside to this method is that a character may not have access one day to a Background Skill he knew yesterday, which makes no sense.

COMPREHENSIVE BACKGROUND SKILLS

For games that tend to de-emphasize Background Skills, but where characters would like to have a lot of obscure bits and pieces of knowledge at their command for character definition purposes, one possible solution is to use a single broadly-defined Background Skill bought with a high roll and the Extraordinary Skill rules. For example, a character could buy KS: Everything My Character Should Reasonably Know 21- and PS: Everything My Character Should Reasonably Be Able To Do 21-. This gives him an at least an 11- roll to know all sorts of information pertinent to his background no matter how obscure.

PERKS

The following additional, optional, or expanded rules apply to Perks.

Contact

Characters who are considering buying a Follower might want to also consider a "Slavishly Loyal" Contact, or vice-versa. The two are similar in many ways, but also have some important differences.

Although a Slavishly Loyal Contact is "almost always" available, it's the "almost" that's important — he's not always at the PC's beck and call, the way a Follower should be. Furthermore, in most cases a PC controls a Follower's actions, but he never controls a Contact's actions in that sort of direct fashion — he doesn't have a character sheet for the Contact, for example.

There's also a qualitative difference between a Contact (even a Slavishly Loyal one) and a Follower. Followers tend to be more well-rounded, more developed, and more in the PC's sphere of control. Contacts have a certain ambiguity about them; they're just not quite as reliable.

Depending on the genre or campaign, one Perk or the other might be emphasized, not available, or the like. For example, in a Golden Age Champions games there might be lots of Followers (kid sidekicks), but no Contacts among the PCs (since true-blue heroes don't need to go skulking around to get information from people like that). On the other hand, a gritty espionage game might have lots of Contacts, but no Followers (no one's that loyal or trustworthy!).

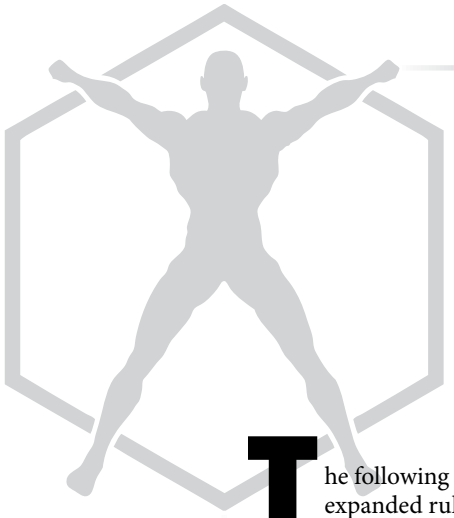
Follower

As discussed on 6E1 102, a Follower's Matching Complications don't reduce the Follower's Character Point cost to the character. This is because, generally speaking, a Follower's Complications don't significantly affect his usefulness to the character. In fact, some Complications, such as *Psychological Complication: Unswervingly Loyal To Master* or *Enraged: when master is harmed,* could even *help* the character. However, if the GM feels that one or more of a Follower's Complications *do* reduce his usefulness to or effectiveness on behalf of the character, he could reduce the Follower's Total Points by that amount, thus in turn reducing his cost to the character.

Vehicle And Bases

If a character wants a "stock" Vehicle — a normal, commercially-available model — but with a few adjustments or extra pieces of equipment, typically he must pay Character Points for the entire Vehicle. He can't obtain a standard civilian Vehicle for free, then just pay for the "upgrades" he wants, unless the GM permits this.

If a Base or Vehicle has a Variable Power Pool, the Base/Vehicle also has to have the Control Cost and a Skill necessary to change the VPP (or an Advantage that makes the Skill unnecessary). The character who creates or builds the Base/Vehicle can't buy those things separately.



TALENTS

The following additional, optional, or expanded rules apply to Talents.

Ambidexterity

If a character has more than two manipulable limbs, all limbs but one count as his "off hand." Buying Ambidexterity reduces or eliminated the Off Hand penalty for all of his limbs.

Lightning Reflexes ⚠

Since the *Lightning Reflexes* Talent increases a character's effective DEX for purposes of acting first, it has no bearing on Mental Combat or the use of Mental Powers, which use EGO to determine who acts first. With the GM's permission mentalists can buy a related Talent, *Speed Of Thought,* that applies to EGO rather than DEX. See the Speed Of Thought Table for the cost of different levels of this Talent.

The standard *Lightning Reflexes* Talent can also serve well in a mentalist-oriented campaign. Differences between EGO and DEX can cause confusion in the order of actions, and if a mentalist's EGO is higher than his DEX (a not uncommon occurrence) he loses the opportunity to make a Half Move if he chooses to attack when his EGO comes up in the initiative order. If a mentalist buys Lightning Reflexes to make his DEX equal his EGO, these problems disappear.

SPEED OF THOUGHT TABLE

Cost	Effect
1	+2 EGO to Act First with All Mental Actions
1	Up to +3 EGO to Act First with a Large Group of Mental Actions
1	Up to +4 EGO to Act First with a Small Group of Mental Actions
1	Up to +5 EGO to Act First with a Single Mental Action

Universal Translator

Universal Translator is a broad Talent that enables many sorts of communication between characters — but it's not infallible. In particular, a character with Universal Translator generally cannot:

- Read/understand encrypted or encoded documents or transmissions (he might understand the literal meaning of the words of a code [as opposed to a cipher], but wouldn't know what they signified)
- read lips (that requires the *Lipreading* Skill)
- understand or speak to animals (unless animals can routinely speak to humans in the campaign setting)
- understand or "read" mathematical equations
- perceive lies or emotions by "reading" body language
- provide cultural context (for example, the character won't know if a particular word or gesture is considered a gross insult, a proposal of marriage, a combat challenge, or the like in a given culture or society)
- read or understand symbols, runes, logos, flags, and the like (except to the extent the GM believes those things are intended to "communicate" a specific word or meaning that's generally accepted in society)
- understand or "read" the sounds made by a modem or like device.

OTHER "UNIVERSALS"

It's possible to think of Universal Translator as roughly equivalent to Linguist and 17 Character Points' worth of Languages — which, if chosen properly, would let a character communicate with the vast majority of humanity. The rest of the Languages, which a character will rarely (if ever) need, are "thrown in" for the sake of drama and fun game play.

Taken one step further, that logic can justify the creation of other "Universals" that apply to other types of Background Skills. The GM should consider them carefully before allowing them into his campaign. Since they grant a character

access to an enormous body of knowledge, they could easily unbalance some games. Even if the GM allows them in appropriate games — such as a *Pulp Hero* campaign where all the characters are supposed to be universally competent — he may want to restrict them so that each one can only be purchased by one PC. That way having a Universal is a distinctive thing, one of the character's "shticks," not something everybody and his brother has.

If for some reason a character has both a Universal and a Skill Enhancer that pertain to the same type of Skill, their bonuses are not cumulative.

TRUE JACK OF ALL TRADES

A character with this Talent can perform virtually any trade, craft, or other Professional Skill competently, whether it involves building a skyscraper, playing chess, painting a portrait, catching dogs, installing electrical wiring, or anything else.

True Jack Of All Trades costs 20 Character Points. For that cost, the character is assumed to have a roll of 11- in any Professional Skill (though the GM can forbid him to perform certain tasks, or reduce the roll, if appropriate). In some cases the GM may require the character to succeed with an INT Roll, or spend a significant amount of time practicing, before he's qualified to make an unpenalized roll with a specific Professional Skill.

At the GM's option, a character with True Jack Of All Trades can improve his roll at a cost of +1 Character Point for each +1 to the roll. The only Skill Levels that apply to True Jack Of All Trades rolls are Overall Skill Levels, 10-point Skill Levels with All Noncombat Skills, and 4-point Skill Levels with All Professional Skills, but the GM can permit other Skill Levels to apply if desired.

Skill Modifiers, including taking extra time to perform a task, apply normally to True Jack Of All Trades rolls unless the GM rules otherwise. In particular, the GM should impose negative modifiers (-1 to -3) if the PS the character tries to use is extremely different from other types of work he's done. Conversely, if he tries to perform a task that's similar to others he's already performed, he gets a bonus (+1 to +3).

UNIVERSAL CONNECTIONS

A character with this Talent has friends everywhere — literally. No matter where he goes or what sort of help he needs, he always seems to know "just the right person" to turn to for information or assistance.

Universal Connections costs 20 Character Points. For that cost, the character can make a Contact roll of 11- any time he needs help or information. If the roll succeeds, he knows someone who can help him out; if it fails, he doesn't know anyone (or not the right sort of person), he cannot contact the person he seeks, or his friend can't help him for some reason. The GM should interpret the results for maximum drama and fun.

At the GM's option, a character with Universal Connections can improve his roll at a cost of +1 Character Point for each +1 to the roll. The only Skill Levels that apply to Universal Connections rolls are Overall Skill Levels, but the GM can permit other Skill Levels to apply if desired.

The Contacts met via Universal Connections are standard 11- Contacts; the character doesn't have any special relationship with or hold over them, and they rarely possess significant resources, Contacts, or Skills of their own. However, the GM can create the character's Contacts to suit himself, the adventure, and the campaign, so it's possible the character might know some very influential and powerful people indeed.

UNIVERSAL PILOT

A character with this Talent knows how to drive or pilot any vehicle, whether it's a sportscar, submarine, hovercar, airplane, time machine, helicopter, tank, or Class 7-Alpha starship. Somehow he instinctively, or through long experience with vehicles of every sort, knows how to start the vehicle, operate its equipment, and steer it.

Universal Pilot costs 20 Character Points. For that cost, a character's considered to have every Transport Familiarity possible in the campaign (though the GM may choose to exclude Riding Animals, and any other category so rare and unusual that he thinks it shouldn't be included). As with Transport Familiarity, the character has an 8- roll for performing dangerous maneuvers (jumps, screeching turns, and so forth), but doesn't have to make rolls to operate a vehicle normally. At the GM's option, a character with Universal Pilot can improve his roll at a cost of +1 Character Point for each +1 to the roll (though the GM should establish some maximum, such as 11-, so Combat Driving, Combat Piloting, and/or Riding remain viable Skills). No Skill Levels (not even Overall Levels) apply to Universal Pilot rolls unless the GM rules otherwise.

UNIVERSAL SCHOLAR

A character with this Talent knows something about pretty much everything. His grasp of obscure topics may not be as good as that of someone who's spent a significant amount of time studying them, but he's surprisingly well-informed about even unusual subjects.

Universal Scholar costs 20 Character Points. For that cost, the character has an INT Roll with any Knowledge Skill. However, the GM may restrict this to "average" or "general" KSs, not obscure ones, or may impose penalties if the character wants to make a roll with an obscure KS. But he can also rule that some facts are so well-known that the character automatically knows them or suffers a lesser penalty.

At the GM's option, a character with Universal Scholar can improve his roll at a cost of +1 Character Point for each +1 to the roll. The only Skill Levels that apply to Universal Scholar rolls are Overall Skill Levels and 5-point Skill Levels with All Knowledge Skills, but the GM can permit other Skill Levels to apply if desired.

Skill Modifiers, including taking extra time to perform a task, apply normally to Universal Scholar rolls unless the GM rules otherwise. In particular, the GM should impose negative modifiers (-1 to -3) if the KS the character tries to use has no significant relation to subjects he's previously studied or shown great knowledge of. Conversely, if he tries to answer a question that relates to topics he's already shown knowledge of, he gets a bonus (+1 to +3).

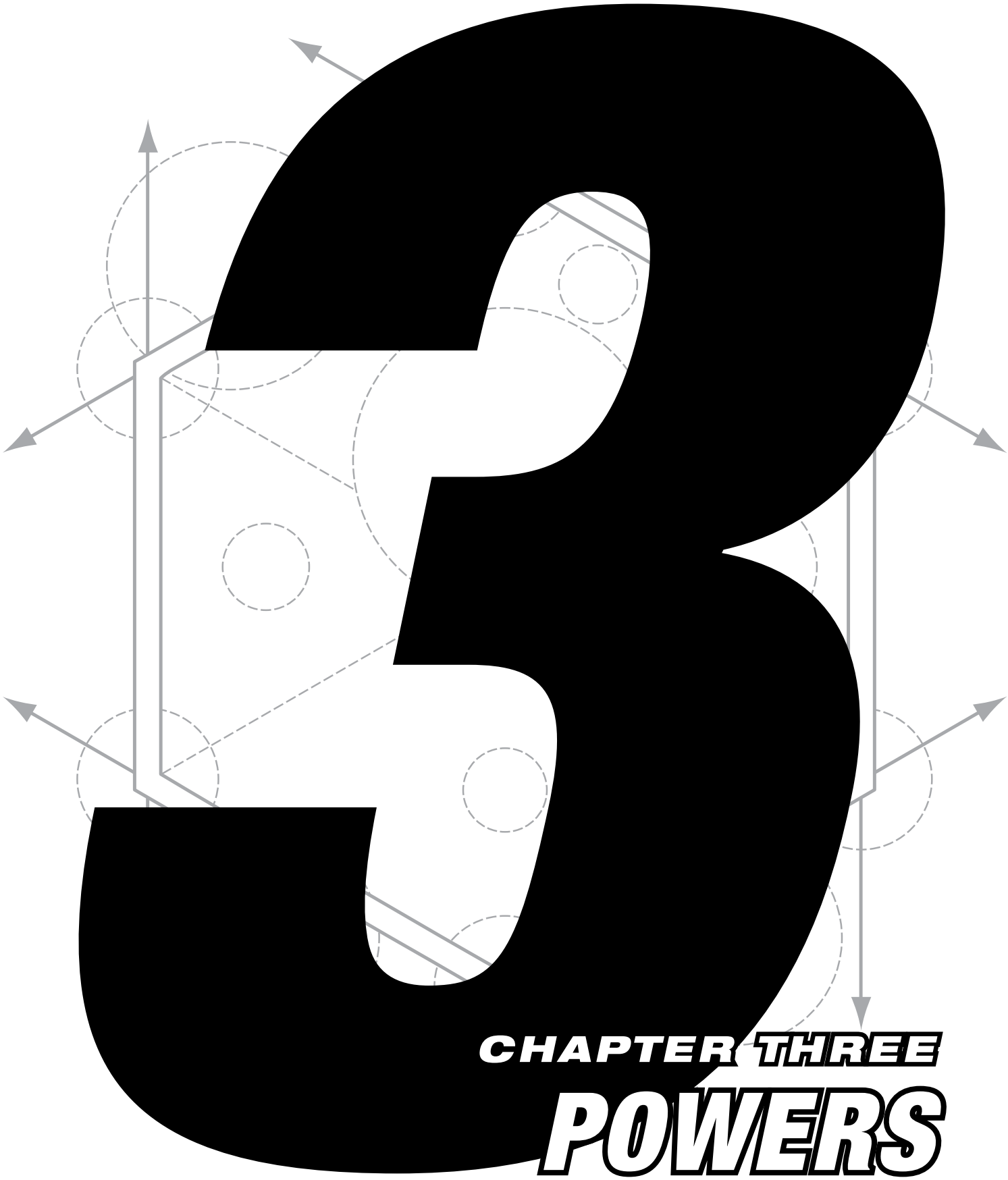
UNIVERSAL SCIENTIST

A character with this Talent is intimately familiar with the entire realm of Science. His grasp of obscure sciences may not be as good as that of someone who's spent a significant amount of time studying them, but he's surprisingly well-informed about even unusual subjects.

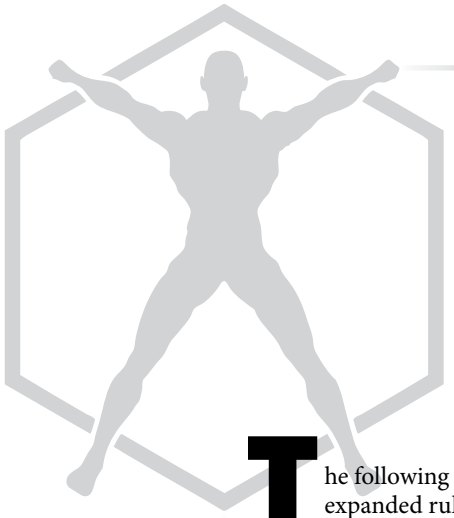
Universal Scientist costs 20 Character Points. For that cost, the character has an INT Roll with any broad Science Skill (such as Biology, Chemistry, Mathematics, or Physics). For more obscure topics, the GM can impose penalties on the roll. On the other hand, he can rule that some scientific facts are so well-known that the character automatically knows them or suffers a lesser penalty.

At the GM's option, a character with Universal Scientist can improve his roll at a cost of +1 Character Point for each +1 to the roll. The only Skill Levels that apply to Universal Scientist rolls are Overall Skill Levels and 5-point Skill Levels with All Science Skills, but the GM can permit other Skill Levels to apply if desired.

Skill Modifiers, including taking extra time to perform a task, apply normally to Universal Scientist rolls unless the GM rules otherwise. In particular, the GM should impose negative modifiers (-1 to -3) if the SS the character tries to use has no significant relation to subjects he's previously studied or shown great knowledge of. Conversely, if he tries to answer a question that relates to topics he's already shown knowledge of, he gets a bonus (+1 to +3).



CHAPTER THREE
POWERS



POWERS

The following additional, optional, or expanded rules apply to Powers.

GENERAL RULES

Here are some additional rules, guidelines, and options pertaining to Powers generally.

Power Duration

If a character has made a Constant or Uncontrolled attack against a target, he cannot then apply a naked Advantage to the power to change the way it affects the target going forward. If he wants to change the power that way he has to use the power on the target all over again with the new set of Advantages (however bought). The special effect of this may be "he just made the ongoing attack worse," but mechanically it involves applying a new attack to the target.

If a character's subjected to a Constant attack, it's usually possible for him to do something to protect himself from it other than breaking Line Of Sight to his attacker. For example, a character who's in a cloud of poison gas (RKA, NND [Immunity], Does BODY) could drink a Potion of Poison Immunity (grants Life Support [Immunity] for 1 Minute). At that point the attack stops affecting him, because he has the defense. However, any damage (or other effect) already taken remains; negating or stopping the ongoing effect does not heal or "reverse" the effects it already had on the character.

As noted on 6E1 127, a target subject to a Constant Power suffers the damage (or other effect) whenever the attacker has a Phase (*i.e.*, when his DEX occurs during the countdown in Segments when his SPD indicates he has a Phase). Typically this occurs before the character using the Constant Power takes any other action, just to simplify the bookkeeping, but the GM can have it occur at some other point during the Actions that comprise that character's Phase if he likes.

If the victim of a Constant attack has a Required Roll on his defenses and misses his first roll, he can try to make the Roll in later Phases. Once he succeeds, the defense applies thereafter for "Requires A Skill Roll" abilities. For "Activation Roll" abilities, he has to succeed with the roll each Phase to keep getting the protection; any time he misses he loses the protection until he succeeds again.

Endurance

A power that's available to a character, but not actually in use, doesn't cost END. For example, if a character has Deflection, Costs Endurance as a slot in a Multipower, and he currently has the Multipower reserve allocated to that slot, he doesn't pay END for it if he's not Deflecting any missiles. Except in some very unusual situations, characters only pay END for Powers when they activate/use them. The fact that a Power is "available to be activated" doesn't mean a character has to pay END for it.

Other "Casuals" ⚠

6E1 131-23 discusses the "Casual" use of STR and other forms of attack. The rules specifically forbid it to apply to defenses, movement, or other non-attack abilities. However, as an optional rule, the GM might permit the "Casual" use of some other Characteristics or types of abilities. Here are some suggestions for possible applications.

Several of the suggestions below mention Casual Characteristic-based Skill Rolls or Characteristic Rolls. However, since the difference between the Casual Characteristic-based DEX Roll, and the ordinary Characteristic Roll is likely to be minor (perhaps only a point or three), the GM should save this method for occasions when he deems it appropriate and dramatic. Characters cannot apply any Skill Levels (of any type) to rolls made with a Casual Characteristic.

CASUAL DEXTERITY

You might occasionally use a character's Casual DEX to make an Agility Skill Roll that would ordinarily take a Half Phase or Full Phase as a Zero Phase Action.

Example: *Eagle-Eye (DEX 24, Acrobatics 14-) is trying to save a falling child while fending off the attacks of the villains who tossed her out the seventieth-story window. He wants to make an Acrobatics roll to "bounce off" a cornice so he can change the direction of his (and the child's) fall, while still leaving himself a Full Phase in which to use Swinging and then counter-attack one of the villains. He asks the GM if he can make a Casual DEX-based Acrobatics roll as a Zero-Phase Action. At DEX 12, his Acrobatics roll becomes 11-. The GM decides this is a fairly significant difference, so he'll allow it — but if Eagle-Eye fails, he must automatically make a normal Acrobatics roll as a Full Phase Action to keep from hurting the child.*

CASUAL INTELLIGENCE

In appropriate situations, you could use a character's Casual INT to determine his PER Rolls for his "everyday perceptiveness." Few people walk around intently perceiving everything around them. Most events and stimuli register faintly, if at all — which is why it's so easy for a person to overlook something that turns out to be important. A Casual INT-based PER Roll could represent this. Of course, if anything crucial to the plot comes along, the GM may want to switch to ordinary PER Rolls, to keep the adventure flowing smoothly.

CASUAL EGO

This Casual Characteristic is already mentioned in the rules, on 6E1 217, for use in breaking out of "Mental Paralysis" Entangles. Besides that (relatively rare) use, GMs might also allow characters targeted by continuing-effect Mental Powers to make Casual EGO-based Breakout Rolls as Zero Phase Actions. However, since the difference between full EGO and Casual EGO is not likely to be that great for most characters, this may have the effect of weakening Mental Powers (and mentalist characters) unfairly, so you should use this method cautiously.

CASUAL PRESENCE

Since making a Presence Attack is an action that takes no time, Casual PRE may not be as useful as other Casual Characteristics — why bother with a Zero Phase Action for half effect, when it takes no time to get the full effect? However, you could use a character's Casual PRE as an indicator of the level of "ambient Presence Attack" he tends to exert just by being near other people. If a character has a sufficiently high PRE, his simply stepping into a room may be enough to make people stop talking!

Example: *The Harbinger of Justice has a 50 PRE to indicate his strength of personality, impressive demeanor, and the ease with which he terrifies criminals. His Casual PRE is 25, so even when he's just around other people — not attempting to make a Presence Attack or use Interaction Skills on them — the GM could roll a 5d6 Presence Attack to gauge their reactions to him.*

CASUAL MOVEMENT

In campaigns where the GM wants active, free-wheeling combats, he might consider letting characters use their Movement Powers Casually. In this case, a character can use one-fourth of his meters of movement (*i.e.,* half of a Half Move) as a Zero Phase Action.

The Standard Effect Rule

A Normal Damage attack with the Standard Effect Rule does 1 BODY.

When a character makes a Killing Attack that's subject to the Standard Effect Rule, he rolls the STUN Multiplier normally unless the GM rules otherwise.

ADJUSTMENT POWERS

The following additional, optional, or expanded rules apply to Adjustment Powers.

General Rules

MAXIMUM EFFECT

If a character buys extra dice of Absorption or Aid with a Limitation, those dice increase the power's maximum effect only when the character can use them.

HIT LOCATIONS

Adjustment Powers are not affected by Hit Location modifiers. Whether a Drain or Aid hits a target in his Head or his Arms, the effect is the same.

ADJUSTING COMPOUND POWERS

Some characters have "compound" powers — abilities built with two or more Powers, such as a lightning bolt spell defined as an RKA + Linked Flash. Adjustment Powers affect a compound power as two powers. Using the lightning bolt spell as an example, a character with Drain Magic 3d6, Variable Effect (any one Magic power at a time; +½), has to choose whether to Drain the RKA or the Flash — he can't affect both at once. If his power had Expanded Effect (two Magic powers simultaneously; +½), then he could Drain both parts of the compound power at the same time. A GM who wants to deal with the additional work could split an ordinary Drain's effect between the two powers if desired (similar to setting up a ratio for an Adjustment Power, as discussed on 6E1 137).

THE SOURCE OF A POWER VERSUS THE EFFECTS OF A POWER

Adjustment Powers work the same whether they're used on the *effects or manifestation* of a power or on the *creator or originator* of the power. For example, a character could use Suppress Summon on a Summoned demon, or on the wizard who cast the Summon spell; either attack could banish the demon if the Suppress effect roll is high enough.

If the target is a being opposed to the character using the Adjustment Power (such as a demon serving the character's wizard enemy), use the being's DCV, Power Defense, and so on. If it's a freestanding effect (like a Suppression field or Change Environment effect), use the original creator's DCV, Power Defense, or the like. If a character wants the victim of a Power like Mind Control (or the like) to be less susceptible to having that effect Adjusted, he also needs to have a Power Defense Usable As Attack ability to make the Mind Control more resistant to Drains and similar powers.

If a Drain is used on the effect but not the character who created it, it reduces only the effect, not the character's power.

ADJUSTING MULTIPLE VERSIONS OF THE SAME POWER; AWARENESS OF ADJUSTED POWERS

When a character defines an Adjustment Power as working against a particular type of Power (Drain Blast, Aid Resistant Protection) rather than a special effect (Drain Fire Powers, Aid Energy Powers), it may happen that the target of such a power has two or more powers built with the Power in question. In that case, only one of the powers is Adjusted (unless the Adjustment Power has a *Expanded Effect* Advantage so it can affect more than one such power at once), and the character with the Adjustment Power chooses which one. But this assumes he knows what powers the target has that are built with that Power — if he only knows about one, that's the one he has to affect. Having the Adjustment Power does not automatically grant him knowledge of the target's powers built with that Power.

Similarly, a character may try to use an Adjustment Power on a target, but the target doesn't have the type of power(s) the Adjustment Power is built to affect. If the character doesn't know the target's powers, he can take a "shot in the dark" and hope that a particular power fits into the category of things he can Adjust. If he's wrong, the attack fails and is wasted, and the character's used up that particular Phase without accomplishing anything. It's up to the GM to inform him of what happens in whatever way the GM sees fit. The character might learn that his target doesn't have that type of powers, or the GM may simply say "Your attack had no effect" and leave the character to wonder whether his opponent has Power Defense, is secretly Desolidified with Invisible Power Effects, or the like.

If an Adjustment Power has a secondary effect (for example, it has the *Does Knockback* Advantage so that it causes Knockback), the secondary effect does not apply if the target doesn't have the Characteristic or power(s) the Adjustment Power is built to affect.

ADJUSTING CHARACTERISTICS BOUGHT AS POWERS

It's not uncommon for characters to buy Characteristics as Powers — for example, some extra STR *Only For Lifting* (-4), or a DEX boost based on taking a drug (OAF, Continuing Charges), or a magic amulet that provides +1 SPD. This raises some interesting rules issues with regard to Adjustment Powers, primarily Drain.

Because of the wide variety of potential powers and situations involved, there aren't necessarily any hard-and-fast rules you can apply. The text below provides *guidelines,* but the GM has to decide how best to apply those guidelines in light of common sense, dramatic sense, the special effects involved, and considerations of game balance.

Generally speaking, the basic guideline in these situations is that the Drain comes "right off the top" — in other words, it affects the character's entire STR. For example, if Drogar (a Fantasy Hero warrior with STR 15 and a magic potion that provides +30 STR for 1 Minute) were subjected to a Drain STR spell that removed 14 points of STR, he'd have STR 31 until the Drain's effects wear off.

INNATE VERSUS SEPARABLE CHARACTERISTICS

In situations where the extra STR is *innate* to the character once applied — as with Drogar's potion — there's generally no need for further rules or guidelines. Such Characteristics don't really differ, in rules terms, from the character's natural STR in any significant way (even though it may come from an outside source), because once it's applied to the character it can't be taken away from him directly.

But if the STR is *separable* from the character — for example, a character with a magic amulet that enhances his CON, or a set of artificial arms that increase his STR — other considerations come into play, primarily this: what happens if the source of the STR is taken away from the character? For example, imagine that Graall Axetooth, a troll with 35 STR, has a magic amulet (OAF) that grants him +30 STR. He suffers 14 points of Drain STR. Then he loses his amulet. Unless the GM prefers otherwise for some reason, in these cases the Drain affects the character's innate Characteristic before his separable Characteristic — thus, Graall would have STR 21 if he lost the amulet (and the person who took the amulet away from him could use it to gain +30 STR himself). An attacker could, in appropriate circumstances, target the source of the separable Characteristic directly (in this example, target the magic amulet rather than Graall himself). This may be difficult, if the item is small and thus has a high DCV.

ENDURANCE RESERVES

A similar issue arises with respect to Endurance Reserve. If a character's hit with a Drain END, what does it affect — his own END, or the Reserve's END? What if he has two or more Endurance Reserves?

Generally speaking, the same rules should apply. One of the reasons characters buy Endurance Reserves is to separate that source of END from "themselves," so that they don't have to worry about what happens if they run out of innate END. Taking into account special effects — such as an electricity-based power that only affects batteries — the GM may rule that a Drain applies to the Reserve and not the character, or affects them both in some ratio (usually 50-50), or the like.

Since Endurance Reserves are discrete things, usually if a Drain affects one and reduces it to 0 END, it doesn't go on to affect a second Reserve or the character's personal END if it has "Drain points" left to use. But as always, the GM has to interpret this in light of special effects, game balance, and other considerations. If a character buys several small Endurance Reserves to try to exploit this rule, the GM should allow "overage" to affect other Reserves, or maybe establish some other restriction (such as imposing an Extra Time requirement for switching from one Reserve to another, for -0 Limitation value).

RETURN RATE BASED ON RECOVERY

At the GM's option, characters can base the return/fade rate of an Adjustment Power on the target's REC, rather than on a flat 5 Character Points per Turn basis. Unless the GM establishes this as the default rule for a campaign, it requires a Power Modifier. If the average REC of potential targets of an Adjustment Power is higher than 5 (which tends to be the case in many campaigns, given that REC has a Base Value of 4), a return/fade rate based on REC is a Limitation for Adjustment Powers — how much of one depends on how much higher than 5 the average REC is. If the average REC's lower than 5, than a return/fade rate based on REC would be an Advantage.

Advantages

Autofire: In the case of an Autofire Adjustment Powers, each hit (even multiple hits in the same Segment) counts as a separate attack for purposes of the Adjusted points fading/returning. So, someone hit with an Autofire Drain three times in one Segment would have 5 points' worth of Drain return to him for each hit (total of 15) when the appropriate amount of time has passed.

Damage Over Time: If a character applies the *Damage Over Time* Power Modifier to a negative Adjustment Power, such as Drain, the target doesn't start regaining lost points until all increments of effect have accrued. Once the last increment accrues, he starts regaining lost points at the specified rate for the power. The same is *not* true of Adjustment Powers that boost or improve game elements, such as Aid; their effects fade at the standard rate regardless of the Damage Over Time increment. If the GM feels any of this might be abusive or pose game balance problems, he should forbid such powers.

Variable Special Effects: At the GM's option, a character who's bought Variable Effect for an Adjustment Power can buy a separate Advantage, *Variable Special Effects,* to increase the number of *special effects* he can affect. Instead of being restricted to just one special effect category, he can choose between two or more. For a +½ Advantage, a character can choose to affect either of two special effects (he can't affect both simultaneously. For each additional +¼ Advantage, he can double the number of special effects he can choose from (+¾ to affect any one of four special effects, +1 for any one of eight special effects, and so on).

> **Example:** *AquaChimp, the world's only water-breathing chimpanzee, wants to project a blast of water that can reduce a target's Fire-based powers. However, he realizes water usually short-circuits Electricity-based powers as well, so he wants his power to affect two special effects at once. Here's how he builds that power:*
>
> *Drain Fire/Electricity Powers 2d6, Expanded Effect (all Fire or Electricity powers simultaneously; +4), Variable Special Effects (Fire or Electricity powers; +½). Total cost: 110 points.*
>
> *When AquaChimp uses his power, he does a Drain 2d6 of all Fire Powers or all Electricity Powers his target possesses (his choice). If he wanted to Drain both Fire and Electricity powers simultaneously, he could buy the power twice with the Limitations* Linked *and* Unified Power.

With the GM's permission, a character use the *Variable Special Effects* rules for Variable Effect with Dispel as well.

Limitations

Charges: With the GM's permission, a character can use an Adjustment Power just to affect a target power's Charges. Divide the Active Points in the power by the number of Charges it has. Using the resulting "point total" for each Charge, apply the Adjustment Power as per normal. Of course, the GM should forbid any use of this rule that seems abusive or unbalancing, such as Adjusting Charges which Never Recover.

If a power has Continuing Charges, and an Adjustment Power is applied to it, the Adjustment Power typically affects the entire power (*i.e.,* all Charges, whether in use or not), not just the Charge currently in effect. However, at the GM's option, a character could declare that he wants to Adjust only the Charge(s) in effect at a particular time (or the GM may restrict him to doing so).

Increased Return Rate (-¼ or more): For some powers, a character may want to increase the rate at which the Character Points added or removed by an Adjustment Power fade or return.

If an Adjustment Power doesn't have the *Delayed Return Rate* Advantage, then every doubling of the amount of points that fade/return per time increment is a -¼ Limitation, *Increased Fade(Return) Rate:* -¼ if the points fade/return at 10 per time increment; -½ if the points fade/return at the rate of 20 per time increment; and so on (assuming the GM allows any further increase in the rate of fade/return). If all the points fade/return immediately when 1 Turn or some lesser increment of time passes, that's worth a flat -½ (the GM may reduce this to -¼ if the Adjustment Power typically adds/removes 10 or fewer Character Points).

If an Adjustment Power has the *Delayed Return Rate* Advantage, the Limitation described above simply reduces the value of the Advantage, but the Advantage has a minimum value of +½. The GM may alter the value of the Advantage as he sees fit to preserve game balance.

ATTACK POWERS

The following additional, optional, or expanded rules apply to Attack Powers.

PERSISTENT ATTACKS

Although it's rare, sometimes a character wants to apply Persistent (+¼) to a Constant attack. This has several effects.

First, it removes the need for the character to maintain Line Of Sight to the Constant Power (see 6E1 127). Second, the attack continues to affect the target on each of the attacker's Phases, just like a Constant attack; this applies even if the attacker is Stunned, provided he still has enough END (or STUN) to keep "fueling" the attack. Third, if the attack costs 0 END, it continues to affect the target even if the attacker is Knocked Out, leaves the vicinity, or the like; in theory it could continue to affect the target forever. For this reason, Persistent, 0 END attacks should be considered "Stop Sign" abilities, and as with Uncontrolled attacks the GM may require the attacker to define a reasonably common and obvious way for someont to stop the Persistent attack from affecting the target.

If a Persistent attack is a slot in a Power Framework, a character cannot maintain it as an attack while switching to another slot. Switching slots automatically causes the Persistent attack to stop working.

HALF DICE

Typically it's best if most Attack Powers are bought in full dice, rather than half dice or single points. However, there may be instances where a character needs just a *little* more power or the GM wants to customize a villain's attacks. Unless the specific rules for an Attack Power indicate otherwise, use the accompanying table to determine the cost for half dice and single points of Attack Powers.

LESS THAN FULL DICE

If A Full Die Costs...	Then A Half Die Costs...
15 points	10 points (or 5 points for 1 point)
10 points	5 points (or 3 points for 1 point)
5 points	3 points (or 2 points for 1 point)
3 points	1½ points (or 1 point for 1 point)

INCREASED DAMAGE DIFFERENTIATION

The GM can, if he wishes, allow for greater differentiation of damage than just whole and half dice. This provides more incentive for characters to buy odd values of STR, Blast, or other abilities, and also allows for greater variation among characters in Heroic genres.

The accompanying table shows what various attack abilities cost using this system in the 10-20 Character Point range. Using it as an example you can extrapolate costs for other amounts of dice.

DAMAGE DIFFERENTIATION

Cost	Normal Damage*	Drain, Mental Blast	Killing Damage
10	2d6	1d6	½d6
11	2d6	1d6	½d6
12	2d6+1	1d6	1d6-1
13	2½d6	1d6+1	1d6-1
14	3d6-1	1d6+1	1d6-1
15	3d6	1½d6	1d6
16	3d6	1½d6	1d6
17	3d6+1	1½d6	1d6
18	3½d6	2d6-1	1d6
19	4d6-1	2d6-1	1d6
20	4d6	2d6	1d6+1

***:** You can also use this column for STR (the "Cost" in this case indicating points of STR rather than actual cost) and for continuing-effect Mental Powers like Mind Control and Telepathy.

ATTACKS AGAINST ALTERNATE CHARACTERISTICS ⚠

Several Attack Powers use a Characteristic to determine the Power's effect on the target. For example, the victim of an Entangle uses STR to break free, and a Transform's effect is compared to the target's BODY to determine whether he's been Transformed.

At the GM's option, characters can use a Power Modifier, *Works Against Alternate Characteristic,* to change the Characteristic that determines the effect of a Power. This Modifier may be an Advantage or a Limitation depending on whether, in the campaign, the average character is likely to have the affected Characteristic at a lower or higher level than the standard Characteristic used with the Power (the GM determines this, and the value of the Power Modifier).

For example, EGO can substitute for STR to break out of an Entangle or the BODY that determines a Transform's effects to simulate a Mental Paralysis (6E1 217) or Mental Transform (6E1 306). In the typical campaign, the average character's likely to have a higher STR or BODY than EGO, so both forms of the Power Modifier — Works Against EGO, Not STR and Works Against EGO, Not BODY — are Advantages. However, in a "psychic wars" campaign involving factions of mentalists competing for power, the average character's likely to have a higher EGO than STR or BODY, making both forms of the Power Modifier a Limitation. The accompanying text box provides some suggested values, but the final decision's up to the GM.

Unless the GM permits otherwise, characters cannot buy this Power Modifier for an Attack Power that causes STUN damage to change the Characteristic used to determine whether the target is Stunned (CON). Nor can they buy it to make Mental Powers function against a target other than EGO; for that, see *Based On CON,* APG 69.

WORKS AGAINST ALTERNATE CHARACTERISTIC

Affected Characteristic Is, On The Average...	Suggested Value
Much higher than standard target Characteristic	-½ or more
Slightly higher than standard target Characteristic	-¼
Equal to standard target Characteristic	-0
Slightly lower than standard target Characteristic	+¼
Much lower than standard target Characteristic	+½ or more

Here are some further guidelines for alternate Characteristic Powers. Note that only Characteristics similar to STR and BODY are listed; Characteristics such as OCV and SPD have different cost structures and wouldn't function properly for these purposes.

DEX: An Entangle that uses DEX in place of STR might represent energy bonds that can't be broken, only wiggled out of, coils that stretch so much they're unbreakable but which the character can squeeze out of, and so forth.

CON: This might represent "paralytic attack" Entangles such as some venoms, tasers, and nerve strikes — it's not the strength of the character's muscles or will that governs how long he's paralyzed, but his hardiness and fitness. A Transform against CON could inflict a long-term disease of some sort on the target.

INT: An Entangle against INT might represent psychic attacks that put the victim in a "mental maze" he has to "escape" from before he can act, or a riddle or puzzle so absorbing a character can't do anything but try to figure it out until he somehow forces himself to look away from it. A Transform against INT could represent an attack that inflicts madness or mental chaos upon the target.

EGO: See 6E1 217 for Mental Paralysis Entangles, 6E1 295 for the "Psychokinesis" form of Telekinesis, and 6E1 306 for Mental Transforms.

PRE: An Entangle against PRE might simulate the ability to inspire unwavering awe, or a terror attack leaving the victim so frightened he's literally "paralyzed with fear." A Transform against PRE might be suitable for some Transforms of the Spirit (see 6E1 306).

REC, END, STUN: Entangles or Transforms against these Characteristics could represent "fatigue attacks" that make the victim too tired to move, or "dazedness attacks" that "Stun" him without actually doing any STUN damage to him.

ALTERNATE CHARACTERISTIC ENTANGLES

A character attempting to break out of one of these alternate Characteristic Entangles uses the indicated Characteristic in exactly the same way that STR works against normal Entangles. This costs END at the standard rate of 1 per 10 Active Points used (including the base 10 points the character gets "for free" in the Characteristic). (He may also use his Characteristic Casually; see 6E1 131-32).

An Entangle against an alternate Characteristic functions in all ways as a standard Entangle (it reduces the victim's DCV to zero, and so forth). Typically it must be built with the Advantages *Takes No Damage From Attacks* (see below), *Affects Desolidified,* and *Cannot Be Escaped With Teleportation,* but the final decision's up to the GM.

As with a standard Entangle, other characters can help the victim of an alternate Characteristic Entangle escape. But as noted above, most such Entangles can't be physically damaged by others — they should have the *Takes No Damage From Attacks* Advantage, typically at the full +1 level. However, depending on the special effects of the Entangle, there may be alternate ways of helping the victim escape. Possible examples include slapping the victim's face, splashing water on him, administering an antidote, or shouting out clues and encouragement. In some cases this method may be so obvious, or easy to implement, that the Entangle can take a *Susceptible* or *Vulnerable* Limitation (see 6E1 219).

ALTERNATE CHARACTERISTIC TRANSFORMS

A Transform against an alternate Characteristic functions in all ways as a standard Transform. For example, the character must specify how the Transform heals back. Typically this relates to the nature of the attack and may involve applying the same or a similar power to the target. For example, someone who's spirit is Transformed to make him black-hearted and evil (Works Against PRE, Not BODY) could perhaps "heal back" through any similar Spirit Transform, being blessed by a devout priest, or hearing the laughter of a small child. Alternate Characteristic Transforms usually take the Limitations *All Or Nothing* (-½) and *Limited Target,* though they're not necessarily required to.

VARYING CHARACTERISTICS

At the GM's option, a character can improve Works Against Alternate Characteristic so that the character can choose which Characteristic an ability works against every time he uses the power — the one the power would ordinarily work against, or the alternate one chosen when the power's bought. This costs an additional +½ Advantage, and is written as *Works Against Either [Standard Characteristic] Or [Alternate Characteristic]*.

On the other hand, for some types of powers the character must choose the Characteristic that's the *worst* for him between the standard and alternate ones (typically this means whichever one has a higher value). That qualifies for an additional -¼ Limitation.

BODY-AFFECTING POWERS: COMBINING ⚠

Some groups of characters have the ability to merge, becoming one much larger form with proportionately greater abilities. This is referred to as *Combining* for ease of reference. While Combining helps the good guys beat the bad guys, it can also unbalance the campaign unless the GM handles it carefully.

In *HERO System* terms, you can define Combining in several different ways, each with its own benefits and drawbacks. The GM should select the one best suited to his campaign and require all Combining characters to use that method (though some games may feature multiple methods). For purposes of this discussion, the smaller characters that join together are the "component" characters, and the larger character they create when they Combine is the "lead" character.

RESTRICTIONS ON COMBINING

In anime and other fictional representations of Combining, forming the lead character isn't a casual act, or something the characters do every time they go into combat. Instead, it's sort of a last-ditch strategy that typically takes place at the climax of the story. The lead character is so powerful that the writers of these shows don't want to use him too soon, lest they spoil the story.

Unfortunately, gamers rarely show the same amount of restraint. Given access to a powerful "weapon" like a lead character, they're likely to want to use it in every single battle... and realistically, it's hard to tell them not to if there's no restriction on Combining. Therefore, a GM who wants to keep Combining a rare event, and who can't simply appeal to his players' better nature, has to restrict it using the rules. For example, he could:

- require Combining powers to take a 1 *Continuing Charge* Limitation, with the Charge lasting for no more than a Minute.
- make Combining take so much Extra Time and/or Concentration that characters will be reluctant to use it frequently.
- require the lead character to take a Physical Complication, *Unstable,* that forces the component characters' operators to spend a Half Phase to make *Power: Direct Lead Character* rolls every Phase to keep it from coming apart.

Depending on the nature of Combining, other possibilities for restricting Combining may exist.

DUPLICATION

You can use the *Duplication* Power to represent Combining if you think of the component characters as Duplicates and the lead character as the "original character." You build the lead character the same as the component characters, but with some additional abilities. Either it has extra points in powers as described under *Pooled Resources,* below, or it buys a Multiform with the Limitation that it can only "change shape" when no Duplicates exist. (Of course, with the latter method, no actual shape alteration takes place, though the Combined character is larger than any single component; the Multiform is simply a way of representing the fact that the joined character is "greater than the sum of its parts" and thus has different [more powerful] abilities.)

In many cases, the component characters (the Duplicates) are just junior versions of the lead character — they have the same abilities (or most of them), but at a lesser level of power — so they don't need the *Altered Duplicates* Advantage. In other campaigns, each component character has markedly different powers from the lead character, so you have to apply that Advantage to the Duplication. At the GM's option, characters can apply other Duplication-specific Adders and Power Modifiers (such as Easy Recombination), if appropriate.

The benefit to this method is that it's relatively easy to define and note on the character sheet. The drawback is that since the number of Character Points on which a Duplicate is built is defined by the points the original form spends on the power, you can't improve the component characters until more points are spent on the lead character to increase the points devoted to Duplication.

MULTIFORM

In some campaigns, the GM may want to define Combining with Multiform. Each of the component characters is a true form which defines the lead character as its alternate form. Each of them take the Limitation *Only When All Component Characters Are Present* (-1) on the Multiform power.

Instead of each component character paying for the entire cost of the Multiform itself, the GM may allow them to pay for only their proportional share of the lead character. For example, if five 200-point characters Combine to form one gigantic 600-point character with Multiform, then each of the five would be responsible for (600/5 =) 120 points' worth of the ability (before dividing by 5 or applying Limitations). But even if the GM allows proportional costing, all component characters must be present and combat-worthy (*i.e.,* not Stunned or Knocked Out) to form the lead character.

For this type of Combining, if one of the component characters already has a Multiform for some reason, he cannot buy the Combining Multiform with the usual "+5 Character Points doubles the number of forms" method. Instead, he must buy the Combining Multiform separately, as a distinct power.

The benefit to this method is that each component character can be changed or improved on its own. The only restriction is that none of the components can change the points spent on Multiform separately; if the components want to make the lead character better, they must all "upgrade" their Multiform power at the same time.

POOLED RESOURCES

With a "pooled resources" option, "Combining into one bigger character" is defined as the special effect for the enhancement of various powers and abilities possessed by the component characters. The component characters define what they want the lead character to be able to do, then they parcel those abilities out among themselves in some way, applying the *Usable On Others* Advantage so that they can add them together. When they "join together," the components operate is if they're a single unit; they don't fly off in different directions, for example.

For example, suppose the component characters want the lead character to have a Mega-Laser Blast that does RKA 8d6. Four of them buy an RKA 3d6; one — the component responsible for controlling the Mega-Laser Blast — buys an RKA 4d6. The other four also buy RKA +1d6, Usable By Other (+¼), Must Remain Joined To Primary Component (-2). (A GM who wanted to encourage this might even allow the components to dispense with Usable By Other.) That way, when all the components join together, the component responsible for controlling the Mega-Laser Blast can project the desired 8d6 attack.

The possibilities for building pooled resource abilities are practically limitless. The lead character could have better Characteristics, stronger attacks, faster modes of movement, or improved defenses. It might even have some abilities that none of the component characters could use individually. Some powers might work one way when used by a component character, but differently when he's part of the lead character. For example, the components' energy bolts might be defined as Blasts, but when they Combine they become powerful enough to be RKAs. You can simulate this by constructing these systems as Multipowers.

The benefits to this method are twofold. First, it doesn't require all the components to be present, it just means fewer components have less power when joined — if only three are available in the above example, they can project just an RKA 6d6. However, the component responsible for controlling any given system (the one with the RKA 4d6 in the above example) does have to be present for that system to function. At the GM's option, you can change the *Must Remain Joined To Primary Component* Limitation to *Must Remain Joined To Another Component* (-1), meaning that any component could add his extra effect to any other component. Second, as with Multiform, each component character can be changed or improved on its own.

CHARACTERS BOUGHT BY THE LEAD CHARACTER

With the GM's permission, you can simulate Combining by building the lead character normally, then having it buy the components as Followers (or perhaps Summoned beings). He takes a Physical Complication representing the fact that his powers diminish, and eventually become completely unusable, as he "releases" component characters or separates into all of his parts (and that, if he's destroyed, so are all the components). When all components are separated, the lead character effectively ceases to exist — he can't be attacked, moved, or the like. This is similar to the *Pooled Resources* option, above.

GENERAL GUIDELINES

Regardless of how you define Combining, a few general guidelines apply.

First, when component characters Combine to create a lead character, the GM must decide whether (and to what extent) each component can act on its own. With methods such as Duplication and Multiform, technically the lead character should only get one Action per Phase, and so forth. However, it may be more fun to let each component attack or perform other appropriate Actions in combat by itself — it can't split off and act on its own, separately from the greater whole, but it could fire an attack (much like a gunner on a large vehicle can attack the enemy independent of what the vehicle itself does).

Second, except in particularly fantastic campaigns, the mass of the lead character should be as close as possible to the Combined mass of the component characters, and the Characteristics, powers, and abilities of the lead character should relate to, and often be proportional to, the powers and abilities of the component characters. Typically, either the lead character splits its overall power up more or less equally among all its components, or each major power is "given" to a particular component. Sometimes it's a bit of both, with one component getting the lion's share of a particular ability, and the other components getting lesser versions of that same ability.

Third, the GM may want the act of Combining (or splitting apart) to take some time and effort. If the ability is built with a single Power, you can represent this by applying Limitations such as *Extra Time* or *Concentration;* if it involves multiple powers, a Physical Complication may work better for this purpose.

COMBAT WITH COMBINED CHARACTERS

Combining characters (and Vehicles, like some mecha) raise certain questions and considerations in combat.

DISTRIBUTING DAMAGE

When a group of characters combines into a larger one, does battle, takes damage, and then separates, the GM must determine how to distribute the damage among the component characters. The simplest method (and probably the best in campaigns that want fast, easy Vehicle combat) is to keep track of the overall damage to the combined character, and then distribute that damage equally among the component characters when they separate. On the other hand, if the campaign uses the Hit Location rules, then the GM should know which Hit Locations on the combined character each component forms. Then he keeps track of the damage by Location, and when the components split up, the ones who formed the Locations that took damage still have that damage.

Similar considerations apply if one or more component characters have suffered damage prior to combining. If the combined character's BODY is equal to, or greater than, the total BODY of all components, any damage to a component accrues directly to the combined character. For example, suppose the Phobos Gladiator consists of six component Vehicles, each with 12 BODY, and has a total of 72 BODY. If one component has suffered 6 BODY damage, and another has taken 3 BODY damage, then when all five form the Phobos Gladiator, it has only 63 BODY (72-9).

If a component character's BODY is not equal to or greater than the total BODY of the combined character, the GM should determine what percentage a component's BODY is to the lead character's BODY, and then apply that percentage of damage taken to the lead character. For example, Shining Warrior Epsilon is a combined Vehicle with 48 BODY. Each of its components has 24 BODY. Since 24 is 50% of 48, 50% (half) of any damage a component sustains accrues to Shining Warrior Epsilon when it's formed. If one component has taken 15 BODY, then 7 BODY of that damage applies to Shining Warrior Epsilon.

In either case, if the total damage taken by the combined character as a result of previously-suffered damage to its components exceeds the lead character's BODY, the components cannot combine.

ADJUSTMENT POWERS

If an attacker uses Adjustment Powers against a combined character, divide the effect up among the components as equally as possible when they separate. For example, if a combined character received +9 DEX from an Aid DEX, when its five components separate, four get +2 DEX and one (determined randomly) would only get +1.

If a component has been affected by an Adjustment Power prior to combining, apply the result directly to the combined character. If the components separate before the effect wears off, it divides equally as specified above.

UNAVAILABLE COMPONENTS

Sometimes a character wants to combine, but all of its components aren't available. In this case, one of two things happens:

1. The available components form the combined character, but all of its powers and abilities are proportionately weaker than it would be if it had all components (or, perhaps some powers and abilities simply aren't available to it).

2. The components cannot combine.

The GM determines which result applies, based on the nature of the components and the combined character.

DEFENSE POWERS

The following additional, optional, or expanded rules apply to Defense Powers.

Partial Hardening

If a character has some defenses that are Hardened, and some that are not, the Hardened defense applies in full against an Armor Piercing attack, and non-Hardened defenses have half value as usual.

With Impenetrable, any Impenetrable defense, no matter where it's layered in, stops Penetrating from affecting the character. (Of course, GMs should remain wary of players who attempt to unfairly exploit this rule by buying a tiny amount of some defense and making it Impenetrable just to stop Penetrating attacks.)

Layered Defenses

The *HERO System* rules include many different Defense Powers — many ways for characters to protect themselves from injury. Oftentimes, two or more Defense Powers can apply to a single attack. In most cases, you just add the defenses together to determine how much protection the character has. For example, if a character's attacked with a Blast, he adds his ED, his ED worn armor, and his ED Resistant Protection that costs END together to determine his total defense against the attack's STUN and BODY.

But depending either on the type of attack or the types of Defense Powers involved, there are circumstances in which this simple "stacking" of defenses isn't necessarily satisfying. It's simple and easy to handle in the game, and that's why it's usually the default approach. But if an unusual situation arises, you may want to consider the issue of *layering of defenses* — in other words, in what order do multiple defenses apply?

BASIC PRINCIPLES

Before you bring up the topic of layered defenses in your campaign, keep two primary rules in mind:

1. If a character has Ablative defenses, those defenses are always "on top" — they get affected first, before any other defenses. Otherwise the Limitation may not actually restrict or hinder the character to any significant degree.

2. If a character has Damage Reduction that applies to an attack, it applies *last* — after all ordinary (subtractive) defenses diminish the damage.

In light of the guidelines discussed below, as well as common sense, dramatic sense, and considerations of game balance, the GM is of course free to waive or ignore either of these rules. But in general they should always apply, since they help to maintain the balance between attacks and defenses in the *HERO System*.

LAYERED DEFENSE GUIDELINES

In general, here's the order in which you should apply "layered" defenses:

1. Barriers and other defenses that manifest outside or away from the character's body.

2. Resistant Protection that costs END and other defenses that manifest at or around the character's body, but which surround the body in such a way as to cover worn defenses.

3. Worn defenses — defenses bought through a Focus such as a suit of powered armor, an armored costume, or the like — and other defenses immediately next to the character's body.

4. Innate defenses — defenses the character has or buys as innate abilities that aren't listed above, including his standard PD and ED (whether Resistant or not), some special effects of Resistant Protection, most forms of Damage Negation, defenses provided by Density Increase and Growth, and so forth.

Of course, these are *guidelines,* not necessarily rigid rules. No set of rules can account for every possible combination of Powers, special effects, and in-game circumstances, so the GM should modify these guidelines as he sees fit.

EFFECTS OF LAYERED DEFENSES

In most instances, the layering of defenses has little, if any, game effect. All you need to do is add up the character's applicable defenses and use them to reduce the damage rolled on an attack that hits him, and that's it. But there are some situations in which layering can matter.

HARDENED, IMPENETRABLE

First, it may be that some of the character's defenses are Hardened, and some are not. In that case, the Hardened defense applies in full against an Armor Piercing attack, and non-Hardened defenses have half value as usual.

Against Penetrating attacks, any Impenetrable defense, no matter where it's layered in, stops the Advantage from affecting the character (see *Partial Hardening,* above).

However, some GMs may prefer to establish alternate rules/guidelines. One possible method is this: if the DCs of the Penetrating attack exceed the number of points of a layered Impenetrable defense, the Impenetrable won't counteract the Penetrating. Suppose, for example, a character has a Impenetrable Resistant Protection (10 PD/10 ED) that costs END and some innate Resistant Protection and PD that aren't Impenetrable. An 11 DC (or greater) Penetrating attack would ignore the Impenetrable, allowing Penetrating to have its usual effect. If that particular standard doesn't work for you, it shouldn't be too hard to come up with one that does.

LIMITED DEFENSE POWERS

Second, sometimes a character applies Limitations to some of his defenses so that they don't protect him against certain types of attack. For example, a fire elemental might have extra defense that *Only Protects Against Fire* (-½). When defenses are layered, a restricted defense may be more or less effective than it otherwise would be, particularly if, for example, the target has a relevant Vulnerability.

Similarly, other Limitations on a defense may interact with the layering of defenses. For example, suppose that one of the character's defenses is an armored costume — an OIF. If an enemy wants to attack and damage not the character, but his Focus, it may be important to know if the character has other defenses "above" the armored costume to reduce the damage before it hits the Focus. (In this situation the GM may require the character to buy a Focus that would normally be considered Accessible as Inaccessible, since it has protection that most Accessible Foci lack.)

LAYERING CONSTANT DEFENSE POWERS

Related issues arise when characters have Constant Defense Powers — primarily Resistant Protection that costs END (typically to simulate "force field" powers and the like). Some characters may want to activate one of those Powers again and again (paying the END cost each time, of course) to "stack" the defenses to the point where they cannot be harmed.

In the case of Resistant Protection, this is illegal. A character with Resistant Protection cannot activate it multiple times to provide himself with multiple points of Resistant Defense; he can only have "one use" of a single Resistant Protection-based power active at a time. However, characters can buy multiple powers built with Resistant Protection and have them all active at one time if they choose (provided the GM doesn't object for some reason).

In the case of Barrier, characters *can* create multiple walls by taking the appropriate Action and paying the END cost for each one created. Even if activating Barrier is a Zero Phase Action, the character can only create one wall per Phase. If the character wants to create a Barrier beyond one that's already established, the power must have the *Indirect* Advantage (to get past the initial wall). Similarly, to "wrap" one Barrier around another, the second Barrier has to have enough meters of length to reach the entire distance (in the case of simply establishing one straight wall after another to, for example, block a corridor, this won't matter). Of course, the GM can forbid this practice in the interest of common sense, dramatic sense, and game balance; allowing characters to do this repeatedly (or perhaps at all) could significantly unbalance some campaigns. In most cases, a character shouldn't have more than one Barrier protecting himself; it's not "in genre" and potentially causes too many problems in the game.

Damage-Based Endurance Cost ⚠

Depending upon the setting, the type of protective ability involved, and other factors, a character may want to create a defensive power whose END cost depends on how much damage hits it, not on the power's Active Point cost. Here's an optional rule for that.

Damage-Based Endurance Cost is a Limitation. For a -½ Limitation, the Defense Power costs its Active Points divided by 10 to activate (if it doesn't already). Thereafter it costs no END to maintain (unless it takes the *Costs Endurance* (to maintain) Limitation). However, any time the defense is hit by any damage that it protects against, the character pays 1 END for every 5 points of STUN damage (or fraction thereof). He can incur this cost multiple times in a Segment, if he's hit multiple times. If the attack is a type the defense doesn't protect against (for example, it's a Drain used against Resistant Protection that only provides PD and ED), no END cost is incurred. For a -¼ Limitation, decrease the END cost to 1 END for every 10 points of damage (or fraction thereof). In either case, if the character ever has no END (or if lacking END, STUN) to spend when the Defense Power "takes" damage, the Defense Power has no effect at all against that attack.

Depending upon the type of Defense Power used and whether it has some form of the *Costs Endurance* Limitation, a defensive ability may also have the standard END cost to activate or to use. This could represent, for example, a force-field that costs some energy to maintain, but that draws more energy from its power source when hit.

MENTAL POWERS

The following additional, optional, or expanded rules apply to Mental Powers.

Expanded And Variant Rules

Here's some additional information on the existing Mental Powers rules.

WILLING TARGETS

For various reasons, sometimes a character will *want* to be affected by a Mental Power. Mental Powers are not automatically more effective on a willing target (the mentalist still has to make his MCV Attack Roll and Effect Roll, and so on), but typically the willing target of a Mental Power can lower his MCV (by any amount, even all the way to 0) and/or his Mental Defense (if any) so the mentalist has an easier time "hitting" him.

A character who voluntarily lowers his MCV (and/or Mental Defense) may choose to do so for one particular power used by one particular person. Other powers used by that person, and any power used by another person, work against the character's full DMCV — unless he chooses to lower it for them, too.

When a character voluntarily lowers his MCV (and/or Mental Defense) to allow another character easy access to his mind, he cannot thereafter "reactivate" his MCV or his Mental Defense as to that character and that power unless his attacker does something to change the nature/use of the Mental Power (*e.g.,* trying to alter the level of effect or feeding the power END to keep the Breakout Roll from improving). Having chosen to expose himself to the attack, the character has to live with the consequences of his actions. The GM may choose to alter this rule in the interest of common sense, dramatic sense, and considerations of game balance.

With the GM's permission, a character can lower his EGO (to 0 or otherwise) to make it easier for a mentalist to achieve a successful Effect Roll against him. This works just like lowering MCV, as described above.

With the GM's permission, a character could in some cases use less than his full EGO to make a Breakout Roll, much in the same way he can use less than his full STR to try to break out of an Entangle if he wants to. This isn't appropriate for all situations (such as when the character's trying to weasel out of an enemy's Mind Control with the help of a friendly mentalist), but works well in others. However, doing so lowers the character's EGO for *all* purposes and power as to all attackers — in short, it leaves him vulnerable to other mental attacks for as long as he keeps it lowered. Unless the GM permits him to, a character cannot choose not to make his Breakout Rolls.

LINE OF SIGHT

A mentalist can establish LOS with any Targeting Sense, though it's almost always established by Sight. With the GM's permission, a mentalist can buy a Targeting Sense *Only For Establishing LOS* (-½), but this is not recommended.

A mentalist can establish LOS on any part of the body — he doesn't have to perceive the whole target, or even a majority of the target's physical form. If a target hides behind a corner and only his left foot is visible, the mentalist can make an attack based on LOS, because part of the character is within his LOS (alternately, the GM could use the rules for lack of LOS, discussed above). However, a mentalist should remember that it can be risky to use an attack on someone he can't positively identify — that left foot may belong to someone he'd rather not attack.

Situations may occur in which the mentalist can see parts of two bodies, but believes they both belong to the same body. In this case, the GM should roll dice to randomly determine which body part forms the primary basis of the mentalist's LOS, and apply the mental attack to that person; the other person is unaffected.

There may also be cases in which a mentalist has LOS on what he thinks is part of a person, but which is not (for example, a shoe with no foot in it). In this case, the mentalist can make a mental attack as normal, but it's a complete waste of time, and the mentalist realizes after making the attack that no mind exists for him to attack.

Generally, a target cannot "fool" LOS with a disguise or an illusion which makes him look like someone else. The target still has a mind, and a mentalist can affect that mind even if the target's outward appearance changes. But of course, the disguise/illusion may convince the mentalist that that person isn't someone he wants to attack.

A character must establish LOS with his "naked eye" — with his Targeting Senses unaided by any outside enhancements. Thus, he could use his innate Telescopic Sight to establish LOS, but not binoculars. Characters cannot establish LOS through Clairsentience, television, or similar methods. However, there's no restriction on the Range of a Mental Power targeted by a character's innate Targeting Senses. For example, if Lancer has purchased enough Telescopic Vision to view people on the surface of the Moon, she can use her Mind Control 8d6 on those targets; she isn't limited to a maximum range of 400m (40 Base Points x 10m). (Alternately, the GM could use the rules for lack of LOS on 6E1 149 when characters try to establish LOS with artificial aids — in other words, using artificial aids might make establishing LOS more difficult, but not impossible.)

BREAKING LINE OF SIGHT

Whether and how the target of a Mental Power can break a mentalist's Line Of Sight is up to the GM, but usually the circumstances and location make it obvious. Typically all the victim has to do is move to a position where there's an obstacle (a wall, a large tree, or the like) between himself and the mentalist to prevent the mentalist from seeing him. Moving to another dimension, or through time, breaks LOS for the purposes of maintaining Mental Powers unless the GM rules otherwise.

Breaking Line Of Sight doesn't entirely break the "mental contact" between a target and a character using a continuing-effect Mental Power. Even though he now lacks LOS, the mentalist can continue to feed END to the power to keep the victim's Breakout Rolls from improving (see below) or attempt to change the level of effect.

BREAKOUT ROLLS

If (for whatever reason) a character's Breakout Roll for a Mental Power is reduced to 2 or less, he still succeeds with a Breakout Roll if he rolls a 3. However, any penalties to the roll still apply for purposes of counteracting bonuses for the passage of time or other factors — 3 is not a "floor" below which nothing can sink, it's the minimum roll a character can have after all bonuses and penalties are applied.

BREAKOUT ROLLS AS REDUCING EFFECT

Rather than making a Breakout Roll an all-or-nothing function, GMs interested in representing Mental attacks as a sort of "duel" between characters can have the Breakout Roll work differently. If a Breakout Roll succeeds, the character doesn't break free of the attack automatically, he just lowers it by 10 points of effect. (Alternately, the GM can relate the reduction directly to the degree of success, such as "-3 points of effect per point the roll succeeds by.") Typically that's enough to reduce the effect by one level (for example, from EGO +20 to EGO +10), but depending on the results of the Effect Roll it may just reduce/eliminate a Breakout Roll penalty or remove some other effect. Once a character succeeds with enough Breakout Rolls to reduce the effect to less than "Greater than EGO," he breaks free of the Mental Power entirely.

When the target of a Mental Power reduces the Effect Roll using this rule, if necessary the character who used the Mental Power on him can immediately redefine the effect to fit the "new" Effect Roll. In doing so he typically cannot radically change what he initially created, just alter it to a lesser similar effect he could have achieved with the lesser roll. For example, if he established an EGO +20 Mental Illusion, if it's reduced to EGO +10 he redefines it as a less complex form of the same illusion; if an EGO +30 Mind Control is reduced to EGO +20, he reduces the command from, say, "Attack your friends" to "Don't attack me or my allies" (but not to "run away," which is a different sort of order).

To re-establish the effect at its former, higher, level, the attacking character has to use an Attack Action and succeed with another MCV Attack Roll. If he does so, the results of the last successful Breakout Roll are erased, restoring the Mental Power's effect to what it was before that roll succeeded. (The mentalist doesn't have to make another Effect Roll.) Alternately, he can engage the target in an EGO Roll Versus EGO Roll Contest as a Zero Phase Action. If the attacker wins the Contest, the results of the last successful Breakout Roll are erased, restoring the Mental Power's effect to what it was before that roll succeeded. But if the target wins the Contest, that counts as *another* successful Breakout Roll, reducing the effect by 10 points more.

Since under these rules the victim of a Mental Power doesn't get as much effect from a Breakout Roll, at the GM's option the victim gets to make a Breakout Roll every Phase, rather than over increasing time periods as in the standard rules. This can more dynamically simulate a back-and-forth "duel for control" between the mentalist and his target.

If the GM doesn't want to use "reductive Breakout Rolls" as a default rule for the campaign, a character buying a continuing-effect Mental Power could take a +½ Advantage, *Contestable,* for his Mental Power to have it work according to these rules.

BREAKOUT ROLLS USING OMCV

Instead of using an EGO Roll for the Breakout Roll, the GM can treat the process sort of like a Block in HTH Combat and let the target pit his OMCV against the attacker's OMCV to determine if he breaks free. Since most characters with Mental Powers are likely to have high OMCVs, this may make it even less likely that the victim of a Mental Power can break out.

DECREASING THE ENDURANCE COST TO MAINTAIN A MENTAL POWER

At the GM's option, if a character wants to reduce the END required to keep a Mental Power from deteriorating, he must buy *Reduced Endurance* as a naked Advantage for the power with the Limitation *Only Applies To Endurance Spent To Maintain Effect* (-¼). This is separate from any Reduced Endurance bought to reduce the END for using the power in the first place, and requires GM's permission.

CLASSES OF MINDS

Here are some additional rules about classes of minds:

CHANGING CLASS OF MINDS

Generally a character cannot change the class(es) of minds he belongs to, but there are some possible ways to do this.

The preferred method is Multiform. Typically if a character changes to an alternate form that would belong to another class of minds, this does *not* change his class of mind. For example, consider a Human who changes form into a wolf. Ordinary wolves belongs to the Animal class of minds, not Human. But if in wolf form the character retains his Human intellect and the like, he's still got a Human mind. If not (if he becomes completely wolf-like mentally [to the point where his INT and EGO drop to wolf levels, and so forth], or loses his personality to the effects of the *Personality Loss* Limitation), then he belongs to the Animal class of minds (at least temporarily). However, a character can buy a Multiform *specifically* to change his class of mind and nothing else. The alternate form is exactly the same as he is, it just has a different class of mind (which he chooses when he buys the power and cannot change thereafter).

Second, in some cases the GM may allow a character who has Shape Shift (Mental Group) and the *Deep Mental Shift* Adder (APG 15) to change his class of minds. However, that could be extremely unbalancing in some campaigns. A better approach to simulate this sort of "defensive class of mind changing" is to buy Mental Defense with the Limitation *Costs Endurance.*

If a character is subject to Mental Powers affecting either of two (or more) classes of minds (for example, he's an android sophisticated enough to be treated as a Human mind, but still vulnerable to powers that affect Machine minds), he can take a Physical Complication to reflect that fact.

DEFINING THE CLASSES OF MINDS

In most cases, the class of mind a target belongs to is obvious, but here are a few notes on distinctions between the classes:

Human: The "Human" category includes the character's own sentient species (typically humans, since most characters are sentient beings from Earth). If the character is a Dwarf, then his "Human" is other Dwarves; to him, Elves, Humans, and Halflings belong to the Alien class of minds. (See below for more information on defining "Alien.")

In some campaigns the GM may want to expand the definition of "Human" slightly. For example, if your campaign features an Atlantis where the inhabitants were once Human, but have since somehow evolved into a distinct species, they might count as Alien. Or you might rule that because they come from Human stock, they still count as Human for the purposes of Mental Powers. In a campaign with a lot of sentient humanoid races (such as most High Fantasy or Space Opera games), it may be easier and more consistent to assume that all sentient humanoids are part of the "Human" class of minds.

Animal: This category includes nonsentient creatures such as dogs, fish, birds, horses, insects, and wolves. Characters with mental powers that work against animals are sometimes known as *theriopaths.*

Machine: This category includes computers and other electronic and mechanical equipment that's subject to mental manipulation. Hydraulics and engines, for example, generally are not susceptible to psionic manipulation (though they can be telekinetically manipulated). Characters with mental powers which work against machines are known as *cyberkinetics* or *cyberpaths.*

When using Mental Powers on machines that have INT but not EGO, substitute INT for EGO as appropriate. If a machine has neither INT nor EGO, usually Mental Powers won't work on it, but the GM might assign a device an "EGO" just for cyberkinetic purposes. (See *Cyberkinesis,* APG 70, for more discussion and rules about this subject.)

Alien: "Alien" refers to any sentient species other than the character's own. Thus, to a Perseid psionic, other Perseids are in the "Human" class of minds; Humans, Toractans, Mon'dabi, and other sentient species all have "Alien" class minds.

But that's not necessarily the end of the issue. Because of the prevalence of Alien minds in many campaigns (such as Space Opera games or High Fantasy settings), the GM needs to decide how characters buy the ability to affect the Alien class of minds. One extreme is that each sentient species requires its own *Multiple Classes* Adder. Just as Humans can only affect Humans by default, if a Human in, say, a Fantasy campaign buys the ability to affect an Alien class of minds, he must define exactly which species he can affect: Dwarves, Elves, or Orcs. If he chooses Elves, his Mental Powers can affect them, but not Orcs or Dwarves. If he wants to affect Dwarves, he must buy another *Multiple Classes* Adder. This could get very expensive very quickly.

The middle ground, which is appropriate for most campaigns, is for the GM to establish multiple "Alien" class of minds categories based on some criteria (such as species stock, region of the Galaxy the species come from, or the like). For example, maybe all sentient races descended from a specific category of animals (reptilian, mammalian, and so forth) have minds so similar that Mental Powers work normally within that category. Thus, characters would have to cope with a framework including Mammalian Alien, Reptilian Alien, Ichthyoid Alien, and so forth. The Human class of minds would become the

Alien classification appropriate to the character. A Human psionic, for example, would belong to the Mammalian Alien class of minds, and could affect other mammalian sentients normally with his Mental Powers. He could not, however, affect any other types of aliens unless he paid for the standard *Multiple Classes* Adder.

At the other extreme, buying the Alien class of minds may give a character the ability to affect *all* sentient species other than his own. This option works well for highly cinematic campaigns.

Additional Classes: In some campaigns the GM might want to add additional classes of minds to the standard four described above. Usually this reflects something about the nature of the campaign setting, the beings who live in it, or the way psionic powers work in the game. Some possibilities include:

- Draconic
- Elemental
- Energy Beings
- Spirit
- Undead

OTHER CLASS OF MINDS OPTIONS

For some campaigns, the classes of minds rules work best if slightly tweaked or adjusted. Some possibilities include:

No Classes: In cinematic games, the GM may want to ignore the classes of minds rule, allowing any character with Mental Powers to affect any other character normally, regardless of class of minds or species. This may or may not apply to Animals and Machines; some GMs may want to let characters affect them normally, while others may prefer to maintain the classes of minds distinctions regarding them.

Reduced Effect: Instead of having no effect on other classes of minds, a character's Mental Powers may have a reduced effect. The rules on 6E1 149 suggest one possible option — -3 to MCV Attack Rolls and -10 to Effect Rolls — but the GM can alter those numbers or establish other rules if he wants to. In a psionics campaign, the GM may even vary the effectiveness of Mental Powers from class to class. A Mammalian Alien character might affect other mammalian minds normally, Reptilian Alien and Avian Alien minds at -3 MCV/-10 Effect Roll, other flesh-and-blood alien classes at -5 MCV/-20 Effect Roll, and mineral- or energy-based aliens at -8 MCV/-30 Effect Roll. Applying a *Multiple Classes* Adder to increase the number of classes a character can effect would negate any penalties for that class.

Reduced Cost Adder: A GM who wants to use the normal classes of minds rules, but also wants to encourage characters to create psionic powers that can affect other classes of minds, could reduce the cost for the *Multiple Classes* Adder. Instead of +5 points, it might cost +3 points, or even as little as +1 point.

Effect Roll Modifier: Rather than requiring character to buy a *Multiple Classes* Adder, the GM can allow them to affect additional classes of minds with a modifier to the Effect Roll. For some predefined Effect Roll modifier (typically +5 or +10) the character can use his Mental Powers on a class of minds he can't normally effect (if he's bought the *Multiple Classes* Adder, he doesn't use the modifier — he can automatically affect any class he's bought an Adder for).

In some cases the Effect Roll modifier may vary depending on the type of mind the character wants to affect. For example, perhaps the character can affect other sentient humanoid species with a +5 Effect Roll modifier; Animal and non-humanoid sentient minds are +10; energy beings and other bizarre lifeforms are +15; and Machines are +20.

THE PERCEIVABILITY OF MENTAL POWERS

When Mental Powers come into play, two issues regarding their perceivability arise: how other persons perceive the use of Mental Powers; and how (or if) the victim of a Mental Power/mental attack perceives what's being done to him. In some cases the question of what the mentalist can perceive may also arise.

OTHERS' PERCEPTION OF MENTAL POWERS

All Mental Powers are "Invisible" to (*i.e.,* cannot be perceived by) characters who do not themselves have Mental Awareness. (Some other Enhanced Senses that are assigned to the Mental Sense Group might also be able to perceive them.) This includes both the target of the Mental Power and any other characters in the area. Characters who have purchased Mental Awareness can perceive the use of Mental Powers; see 6E1 211 and APG 95 regarding what they perceive. A mentalist can buy a Mental Power with the Power Advantage *Invisible Power Effects* (+¼) to make a Mental Power "Invisible" even to persons with Mental Awareness.

THE TARGET'S PERCEPTION OF MENTAL POWERS

As noted above, a target of Mental Powers cannot perceive a Mental Power in use unless he has Mental Awareness. Despite that, as the target of the Mental Power he knows (a) the Source of the attack (see below) and (b) what Power he's been attacked with. This identification occurs immediately for Mental Blast or Mind Scan and Telepathy; for Mind Control or Mental Illusions it usually occurs after the Power no longer affects the character.

If a mentalist buys his buys a Mental Power with the Power Advantage *Invisible Power Effects* (versus the Mental Sense Group; +¼), the target cannot sense the Source of a mental attack — he still knows he was attacked with a Mental Power and which one, but not who attacked him. (Though of course, visual cues or other clues may tell him even if he can't sense it directly.)

THE SOURCE OF A MENTAL ATTACK

Ordinarily a character knows the Source of a Mental Power used against him. This means he knows which character or person attacked him, assuming he has some sense with which he can perceive that person (and does attempt to perceive him). He doesn't necessarily know his attacker's name/identity or anything like that, just that that person is the one who used (or is using) a Mental Power on him. For example, if the guy standing over in the corner used a Mental Power on him, he knows it's the guy standing over in the corner. If the mental attack comes from the guy in the red hat standing in the middle of a crowded street, he knows it's the guy in the red hat standing in the middle of the crowded street. If the attacker were Invisible, the character would know "the attack came from right over there" if he looked in that general direction (which of course is a big clue that there's someone Invisible there). His ability to sense his attacker doesn't mean he can perceive through the Invisibility, just the general "source" (in this case, an area rather than a specific person) of the attack. (Of course, if he didn't bother to look, he'd just know the attack came from "behind me" or the like.) If the attacker were perceivable by the character's senses, he'd know where and who the attacker is, even if the attacker were (for instance) standing in the middle of a crowd.

However, the character doesn't have LOS on his attacker with a Targeting Sense solely on this basis. He could easily obtain LOS with Sight or another Targeting Sense, but just knowing where his attacker is doesn't give him LOS.

In the case of an attack coming through Mind Scan, the character's going to have, at best, an idea of his attacker's general vicinity, but that's all. Depending on the GM's preferences, it could be as vague as just knowing what continent he's on (or planet, in a Science Fiction game).

PREVENTING THE TARGET FROM PERCEIVING A MENTAL POWER

While this rule — that a mentalist can't hide the fact that he's using a Mental Power on a target from that target — works well in general and helps to keep the game balanced, it may clash with genre or setting conventions. In fiction and the movies mentalists can often use their powers (particularly Telepathy and low-level Mind Control) on anyone they want without their victims being any the wiser. The *HERO System* has several ways to hide the use of a Mental Power from the victim.

The standard way to use a continuing-effect Mental Power on a target without that target being aware of it is to achieve a +20 effect on his Effect Roll. Telepathy with a +20 on the Effect Roll means the mentalist can read the victim's mind and the victim doesn't have a clue that someone's invading his "mental privacy"; Mind Control with a +20 to the Effect Roll means the target remembers his actions but thinks they're his own, natural acts performed of his own will. Even after the victim succeeds with a Breakout Roll, he still won't realize he's been affected by a Mental Power.

If a character uses a Mental Power includes the +20 "Power cannot be detected by target" as part of his desired Effect Roll total, and his Effect Roll succeeds, the target still gets a standard Breakout Roll. If the Breakout Roll fails, the power affects the target without his being aware of it, as described above. If the Breakout Roll succeeds and the target frees himself from the Mental Power's effects, he does not become aware that the Power was used on him. In this case the Breakout Roll is a sort of "subconscious" thing, not something he's consciously trying to do to break free (since he's not even aware he needs/wants to be free). If the first Breakout Roll is the one that succeeds, the target has no idea that anyone even did anything to him unless there are other external indicators (such as a visible special effect, or he has Mental Awareness). If the successful roll is one of the later ones, the target continues to believe that whatever he did/experienced while under the Power's effects is real, normal, intended, or the like. This might lead to some questions (like, "I know I meant to do so-and-so, but why did I just suddenly decide to stop doing it?" for Mind Control), but at best the target won't be aware he was ever affected by a Mental Power until more facts come to light. The GM should handle the situation as he sees fit, keeping in mind that the attacker did achieve the requisite "cannot be detected by target" use of the Power and should get the benefit of it to the extent reasonably possible.

If a Mental Power has the *Cumulative* Advantage and the character wants to achieve the +20 "Power cannot be detected by target" modifier, the GM has to handle the situation properly — it doesn't make any sense for the target to have awareness of the attack right away but forget it later. The best approach is to have the mentalist declare a specific total he wants to achieve (such as "I'll keep attacking until I get a total Effect Roll of 70," for example). If that suffices to achieve the desired command with the +20, the target's never aware of the attack. If it fails to achieve that total, the target becomes aware at that point that he was being attacked by a Mental Power that failed. If the attacker stops (or is stopped) before achieving his declared total), the target becomes aware at that point that he was being attacked by a Mental Power that failed.

A more reliable (but potentially unbalancing) method, discussed on 6E1 339, is to buy Invisible Power Effects (+½) to conceal the effects of the power from the target. This guarantees the victim won't know he's been affected by a Mental Power, which may make it far too easy for the mentalist to achieve his goals.

A third method, using the optional rule on APG 69, is to buy the Mental Power with the +20 Character Point Adder that it's always undetectable by the target. This works the same as the Invisible Power Effects method.

OPTIONAL RULES

The methods discussed above may not work well for some campaigns, based on how the GM defines psionic powers as working and how easily he wants characters to be able to affect each other and NPCs. Some possible variant rules for hiding the effects of a Mental Power from the target of that power include:

- as a campaign default rule, Mental Powers not intended to inflict direct or indirect harm on a target cannot be perceived by that target. Primarily this means that reading thoughts with Telepathy and finding minds with Mind Scan cannot be detected. Mind Control, Mental Illusions, rearranging memories with a Mental Transform, and the like all cause direct or indirect harm and can be perceived normally unless the +20 Effect Roll modifier is declared and achieved. However, the GM might allow some mild uses of those powers, such as a low-level Mental Illusion to temporarily distract a guard, to not be perceived either.
- the standard rule is in place, but it requires a lesser modifier than +20 — perhaps only +10, or maybe just +5. The GM sets the value depending on how easily he wants mentalists to be able to hide their psionic activities.
- the GM can base the concealability of Mental Powers on the MCV Attack Roll. If a mentalist succeeds with his MCV Attack Roll by 3 or more, he can, if he chooses, hide from the target the fact that a Mental Power's being used on him. If he makes the roll by 0-2, the target realizes what's being done to him.

THE ROLE OF MENTAL AWARENESS

Regardless of what method's used to hide the use of a Mental Power from the target, the situation becomes a little more complicated if the target has Mental Awareness. In that case, typically the target initially "sees" that his attacker is using a Mental Power, but doesn't realize that he's the one being affected. When he finally succeeds with a Breakout Roll, at that point he realizes he was the target and that the character used a Mental Power on him (and which one). In effect, having Mental Awareness doesn't prevent a character with a Mental Power from achieving a +20 "hide the use" result initially, but it overrides the rule that making a Breakout Roll doesn't "dispel" the hiding.

THE MENTALIST'S PERCEPTION

A mentalist who uses a Mental Power on a target knows he hit the target, and that he affected him, and for a continuing-effect Mental Power he knows what "level" of affect he achieved. Beyond that, a mentalist doesn't necessarily know how badly he hurt/affected a target, or the like — any more than a person who fires a gun at someone can tell every single time whether he's inflicted a deadly wound or a trivial one. There may be some instances where a GM would consider it appropriate to give a mentalist more information about the effects of his attack, but it's not required.

ALL OR NOTHING

The continuing-effect Mental Powers have an "all-or-nothing" effect that most offensive Powers lack. For example, with a Blast, when a character hits a target he usually does *some* damage — maybe just a little, maybe enough to Stun or Knock Out the target, or maybe enough to injure him badly but not Stun him. But a Mental Power like Mind Control either works — in which case the mentalist has a fairly significant amount of control over the target — or it absolutely fails to work. There's no middle ground.

This poses a problem for some campaigns because the "all" aspect of Mental Powers is powerful enough that some GMs forbid Mental Powers in their campaigns entirely. Conversely, the "nothing" aspect often makes players avoid playing mentalists.

To get around the "nothing" problem the GM can institute a rule that an unsuccessful attack with a continuing-effect Mental Power imposes a slight penalty on the target to reflect the fact that he just "fought off" that attack. If the mentalist's MCV Attack Roll succeeds, but his Effect Roll fails to achieve his declared effect, the target must make an EGO Roll. If the target succeeds, he suffers no penalty. If he fails, he loses a Half Phase — this reflects the effort he puts into resisting the mental attack. If the mentalist's MCV Attack Roll and Effect Roll both succeed, but the target breaks out of the effect with his first Breakout Roll, the target loses a Half Phase in the Phase in which he made the Breakout Roll. He cannot make an EGO Roll to avoid this effect. (Under this system, the effort required to resist or escape from the effects of mental powers can take some time, compared to the standard rule that making a Breakout Roll doesn't take any time.)

Alternately, the GM might make Mental Powers easier to use. For example, if you change the Effect Table levels from +10 per step to +5 (thus, the EGO +10 effect becomes EGO +5, the standard EGO +20 becomes EGO +10, and so on) mentalists have a much easier time achieving powerful mental effects. But this may make Mental Powers unbalancingly effective.

Dealing with the "all" aspect of Mental Powers is much more difficult, if not impossible. In comic books, novels, and movies the author can keep the protagonist from misusing, overusing, or abusing his psionic powers. But in a roleplaying game, the "author" (the GM) doesn't directly control the protagonists (the PCs) and abilities like Mind Control have to be quantified with numbers and rules, which gives them precisely-defined effects (and limits). In most campaigns the best solution is to impose a point or effectivness ceiling (*i.e.,* a restriction on the Active Points or number

of dice a character can have in a Mental Power), thus roughly ensuring what the average effect of a Mental Power will be and how strongly it impacts a typical target.

SKILLS

Combat Skill Levels: If a character uses Combat Skill Levels to add effect dice to a continuing-effect Mental Power, he can shift the CSLs to some other function after establishing the effect. Doing so does not reduce the Effect Roll, but it allows the victim to make another Breakout Roll immediately.

POWERS

Adjustment Powers: At the GM's option, an ongoing effect from a continuing-effect Instant Mental Power (such as Mind Control) could be Adjusted. Use the DCV, Power Defense, and other attributes of the character using the Mental Power, not the victim of that power. If the GM prefers, use the attacker's DMCV rather than DCV. Treat the Mental Power as a non-incremental ability for these purposes — since the attacker's established an existing effect, the Adjustment Power has to reduce the Mental Power to 0 points to stop the effect from affecting the target. (Note that the Adjustment Power applies to the points in the Mental Power, not the total of the Effect Roll made when it was used.) However, if the attacker has to make another Effect Roll to do something (such as to give a different order with his Mind Control), he would do so at the current, Adjusted, level rather than his normal level of power.

ADVANTAGES AND ADDERS

Guaranteed Modifier: ⚠ At the GM's option, a character can buy a continuing-effect Mental Power that always achieves a certain Effect Roll modifier, such as "undetectable by target," "takes STUN from illusory attacks," or even "always suffers -2 penalty to Breakout Rolls." The cost of this Adder equals the amount of the modifier applied to the effect roll on the Power's Effects Table. For example, "target takes STUN from illusory attacks" is a 10 Character Point Adder, "power is undectable by target" is a 20 Character Point Adder, and "target always suffers a -2 to Breakout Rolls" is a 10 Character Point Adder.

LIMITATION: BASED ON CONSTITUTION

With the GM's permission, characters can take Limitations similar to *Mental Power Based On CON* to have a Mental Power work against alternate Characteristics other than CON. Some possibilities include:

Mental Power Based On STR (-1): Mental Powers with this Limitation (most often Mind Control) typically involve a psychokinetic-like manipulation of the target's body. If he's strong enough, he can resist or break free; if not he's forced to act according to the mentalist's wishes.

Mental Power Based On STR works just like Based On CON in terms of targeting, range, defenses, and similar factors. In games where the average STR tends to be much higher than the average EGO (such as many Champions campaigns), it may be worth even more; in games where EGO tends to exceed STR (such as a "psychic wars" campaign), it may even be a +0 Advantage.

Mental Power Based On INT (-¼): Mental Powers with this Limitation typically involve manipulating someone through logic and skillful argumentation (Mind Control), intellectually convincing the target that his perceptions are wrong (Mental Illusions — "Don't you realize that under these conditions, science and logic indicate you can't possibly be seeing what you think you're seeing?"), and so forth.

Mental Powers Based On INT are targeted with OMCV against DMCV and work on a Line Of Sight basis with no Range Modifier. Like normal Mental Powers, they're Invisible, but characters can perceive them with Mental Awareness. The target's Mental Defense applies against the attack. Compare the Effect Roll to the target's INT (substitute INT for EGO on the Effects Table of the Mental Power). A Mental Power Based On INT lasts until the target shrugs off its effects, which requires a successful INT-based Breakout Roll made with the standard modifiers (if applicable). Mental Powers Based On INT may be Deflected with Mental Deflection (see APG 88).

Mental Power Based On PRE (-¼): This Limitation in effect lets a character transform a Mental Power into a superhuman version of various Interaction Skills (Persuasion as Mind Control ["Are you going to believe your own eyes, or me?"], Conversation or Interrogation as Telepathy, and so on), create "Presence Attacks" so intense they can stun the target (Mental Blast), and the like.

Mental Powers Based On PRE are targeted with OMCV against DMCV and work on a Line Of Sight basis with no Range Modifier. Like normal Mental Powers, they're not visible, but characters can perceive them with Mental Awareness. The target's Mental Defense applies against the attack (alternately, the GM might require characters to buy "Presence Defense," defined as PRE with the -1 Limitation *Only To Protect Against Presence Attacks,* which would also apply against Based On PRE powers). Compare the Effect Roll to the target's PRE (substitute PRE for EGO on the Effects Table of the Mental Power). A Mental Power Based On PRE lasts until the target shrugs off its effects, which requires a successful PRE-based Breakout Roll made with the standard modifiers (if applicable). Mental Powers Based On PRE may be Deflected with Mental Deflection (see APG 88).

New Approaches

Here are some new approaches to, or significant variants of, Mental Powers.

NORMAL RANGE AND PERCEIVABILITY

One of the things that makes Mental Powers so effective, and so potentially unbalancing, is that they're innately Invisible and work on a Line Of Sight basis. For a very small investment in some Telescopic for Normal Sight, a mentalist could in theory stay far, far away from a battle and yet still attack his team's enemies. Obviously most GMs would never permit this, but the possibility exists.

One potential solution for this problem is for the GM to change the way Mental Powers work. Instead of being Invisible and using LOS by default, they function like most other Attack Powers: they're Obvious and they have the Standard Range of Base Points x 10m. If a character wants his Mental Powers to be Invisible or use LOS targeting, he can buy the appropriate Advantages.

This method makes Mental Powers work a lot less like they typically do in genre fiction and comic books, but in what may be a more "balanced" way for many *HERO System* campaigns. On the other hand they could weaken Mental Powers to the point where the GM needs to improve them a little bit to compensate (for example, by imposing a standard penalty on all Breakout Rolls).

CUMULATIVE MENTAL POWERS

One way to counteract the "all or nothing" effect discussed above is to make all of the continuing-effect Mental Powers cost 10 Character Points per 1d6 but be Cumulative by default. That way a character who didn't achieve the result he wanted immediately could keep trying until he reached the desired Effect Roll total (if that weren't possible, he could take a -1 *All Or Nothing* Limitation, meaning he'd have to succeed in one roll). If necessary to keep Mental Powers balanced, the GM could restrict the maximum result to some defined amount (such as 2x or 4x the maximum result on the dice), then allow a character to double that maximum for each +¼ Advantage.

Cumulative-by-default Mental Powers could also be used to make Mental Combat more of a "psychic duel." Include the optional rule from APG 64 that makes Breakout Rolls reduce an Effect Roll (rather than completely freeing the victim). Then allow the target of a Cumulative Mental Power to make a Breakout Roll at any time as a Full Phase Action to have a chance to reduce the accumulating effect.

MENTAL POWERS AS SKILLS

Instead of buying continuing-effect Mental Powers as Powers, characters could buy them as EGO-based Skills. Successfully attacking someone with one wouldn't involve an Attack Roll but a Skill Versus Skill Contest against the target's EGO Roll. To achieve a "Greater Than EGO" effect, the attacker has to win the Contest by 3; for EGO +10, by 6; for EGO +20, by 9; and so on. Every full 5 points of Mental Defense adds +1 to the target's EGO Roll. If the attacker succeeds, the target doesn't get a Breakout Roll on his next Phase like usual (his EGO Roll in the Contest takes the place of that), but does get them after 1 Turn, 1 Minute, and so on like usual.

New Mental Powers

Here's an expansion of the rules for Cyberkinesis (using Mental Powers on computers and machines), and a new Mental Power, *Possession*.

CYBERKINESIS

Cyberkinesis is a general term referring to Mental Powers that affect the Machine class of minds. Typically Cyberkinesis powers are used on computers and similar devices, but they're not restricted to them. This section provides advanced/expanded rules for affecting all sorts of electronic devices with Mental Powers.

Mental Powers that affect the Machine class of minds use the target's EGO as usual. If the target doesn't have EGO, use its INT. This is the case with most non-sentient Computers, for example.

Devices that aren't even as "smart" as Computers are assigned a "simulated INT" so that characters can affect them with cyberkinetic powers. The accompanying Simulated Intelligence Table lists suggested INT values for various everyday devices. As always, the GM has the final say; he may want to adjust some of the entries in the table to suit his game.

Using Cyberkinesis, a character can even use Mental Powers on another character's Focus (though a Focus's simulated INT equals its Active Points divided by 5, which may be even higher than its owner's INT). If the Focus is Inaccessible, increase its simulated INT by 50% or +5, whichever is smaller. If a Focus has multiple powers, use the one with the highest Active Point total, then add +1 INT for each additional power. At the GM's option, any Mental Defense the Focus's owner has also applies to the Focus for purposes of resisting Cyberkinesis. (A character can buy Mental Defense only to protect a specific device for a -2 Limitation, or all of his devices for a -1 Limitation.) If the Focus is a Personal Focus, the GM may not allow other characters to affect it with Cyberkinesis, or may give it a large amount of "innate" Mental Defense solely for the purpose of resisting such attacks.

Most devices and machines have DMCV 3. Devices that have EGO may have higher DMCVs (particularly if they happen to have Mental Powers themselves). A Focus has DMCV 3 or the DMCV of the character using/holding it, whichever is worse.

SIMULATED INTELLIGENCE TABLE

Device Or Technology	INT
Air conditioner	3-10
Answering machine	4
ATM machine	8
Billboard, electronic/neon	5
Blender	2
Calculator	6
Camera	
Standard	4
Digital	6
Car	
Standard	6
Heavily computerized	8
Cash register, electronic	6
CD player	6
Copier	6
DVD player	7
DVR	8
Electronic book reader	6
Elevator	10
Escalator	7
Fax machine	6
Firearms	Active Points/5 (see text)
Flashlight	3
Focus	Active Points/5 (see text)
Heater	3-10
Gaming console	6-8
Industrial/manufacturing machine	5-8
Intercom system	6
Lamp	2
Lawnmower	3
Leafblower	3
Lighting fixture, Lightswitch	2
Lock, electronic	7-10
Microwave oven	5
Modem, external	8
Oven, standard	2
Phonograph	3
Printer	7
Radio	
Standard	4
Clock-radio	5
Refrigerator	4
Scoreboard, electronic	7
Security system, electronic	Active Points/5 (see text)
Sign, electronic/neon	5
Stapler, electronic	3
Stoplight	6
Stove	2
Tape player	4
Telephone	
Cell phone	8
Cordless	6
Rotary dial	4
Touchtone	5
Television	
Analog	7
Closed circuit	8
Digital	8
JumboTron	10
Toaster	2
Trap	Active Points/5 (see text)
VCR	6
Waffle iron	2
Walk/Don't Walk sign	6
Watch	
Digital	5
Electronic	4
Weapons	Active Points/5 (see text)

MANIPULATING PHYSICAL COMPONENTS: CYBERKINETIC TELEKINESIS

Most of the entries in the Simulated Intelligence Table are electronic devices, devices with engines, and the like. For Cyberkinesis purposes, assume that for every full 20 Base Points in a Mental Power (*i.e,* every 4d6 of a continuing-effect Mental Power), the cyberkinetic character has "1 STR Telekinesis." He can only use this "Telekinesis" to press buttons or keyboard keys, flip switches, turn knobs or dials, turn on ignition systems, and the like. He cannot use it for more mechanical purposes (such as operating pulleys, working hydraulic systems, opening locks, or pulling triggers) or for manipulating the machine itself (such as steering a controlled car, drawing a crossbow, or moving a hydraulic press).

However, with the GM's permission, a character who has Cyberkinesis powers (particularly cyberkinetic Mind Control) can buy Telekinesis with the *Fine Manipulation* Adder that has the +0 Advantage, *Cyberkinetic.* Cyberkinetic Telekinesis is targeted with the character's OMCV against the machine's DCV. It can only be used against a machine the character has established Cyberkinesis Mind Control over. It's targeted by LOS and can be used through a cyberkinetic Mind Scan lock-on.

To take just a few examples, using Cyberkinetic Telekinesis a character could:

- pull the trigger on a gun
- steer a car
- operate a hydraulic press (or similar manufacturing equipment)
- pull a rope through a pulley
- release (or draw up) an anchor
- turn gearwheels

If a character uses Cyberkinetic Telekinesis without having Line Of Sight to the target object (for example, through a Mind Scan lock-on), or without some other way to perceive what he's doing, then any attacks he makes with the device are made as if he cannot perceive the target with a Targeting Sense.

WEAPONS

If a character wants to cyberkinetically attack a mechanical or electronic weapon — a bow, a pistol, a laser rifle, a grenade, a howitzer, or what have you — typically the weapon has a simulated INT equal to its Active Points divided by 5. However, the GM can adjust that INT to reflect the nature of the weapon and other factors. For example, pulling the pin on a grenade is probably a much easier task than taking control of a blaster pistol and firing it, even if they both have the same Active Points. Manipulating many parts of most weapons requires Cyberkinetic Telekinesis to pull triggers, draw bowstrings, feed shells into firing chambers, and so forth.

USING AND CONTROLLING THE WEAPON

When attacking with a cyberkinetically-controlled weapon, a character uses his OMCV against whatever defensive Combat Value the weapon normally works against (usually DCV), and attacks using his own SPD.

If no one else tries to control the weapon (for example, it's an automated blaster built into a wall), the character has no problem firing the weapon. He can move the weapon using his innate "Telekinesis" from Cyberkinesis (assuming it's not too heavy to move with so little STR); he doesn't have to have Cyberkinetic Telekinesis.

However, in many cases another character will struggle to try to control the weapon. For example, if a cyberkinetic character takes control of a soldier's blaster pistol, the soldier may try to use his STR to keep the weapon in its holster, point it away from any meaningful targets, or the like. In this case the cyberkinetic character has to engage in a STR Versus STR Contest with the character trying to control the weapon (using either his Cyberkinesis "Telekinesis," or an actual Cyberkinetic Telekinesis power he's bought separately). Treat this similar to breaking out of Entangles and Grabs: if the cyberkinetic character rolls at least twice the BODY as the character struggling to control the weapon, the Contest takes no time and the cyberkinetic has a Full Phase in which to act with the weapon; if he wins the Contest but by less than that, he has a Half Phase in which to act with the weapon; if he loses the Contest he maintains cyberkinetic control of the weapon but can't physically move or point it.

SECURITY SYSTEMS AND TRAPS

Many security devices in modern-day and futuristic settings, such as motion detectors and electronic eyebeams, can be affected by cyberkinetic powers. Typically their simulated INT equals the Active Points used to build them divided by 5. If the GM doesn't have a formal writeup of a security device, he can simply estimate what he thinks its Active Points would be, or assign it an INT based on its complexity.

Mechanical traps such as arrow projectors, deadfalls, trapdoors, and the like work the same way. However, since they have few (if any) electronic parts, usually a character needs Cyberkinetic Telekinesis to manipulate them.

SPECIFIC MENTAL POWERS

Here are some guidelines for how specific Mental Powers affect devices and machines. As always, the GM should interpret them in light of common sense, dramatic sense, and considerations for game balance.

MENTAL ILLUSIONS

Mental Illusions functions as a cyberkinetic power only against devices that have or can display images. Typically this means television screens, computers, and cameras of various sorts. It has no effect on devices that can't show images or text electronically.

At the "Greater Than EGO" level of effect, cyberkinetic Mental Illusions can make cosmetic changes to the picture on a viewscreen or monitor. For example, the character could change the skin or clothing color of someone on the screen, or make black text purple.

At the "EGO +10" level of effect, cyberkinetic Mental Illusions can make major changes to the picture on a viewscreen or monitor. For example, the character could make one person or image look like another person or similar image, could change or remove text (but only on the screen, not in a computer file), add or remove clothing from a person, or the like.

At the "EGO +20" level of effect, cyberkinetic Mental Illusions can completely alter the picture on a viewscreen or monitor. The character could turn on the screen and make it show any image he desired, turn off the screen (or make it show nothing but static or blank blackness), or change an existing picture in any way.

MIND CONTROL

Mind Control is the main form of Cyberkinesis, since it's how a cyberkinetic character literally "takes control of" and operates a device or machine with the power of his mind in most cases.

Typically establishing Mind Control over a device is easy, since by definition most functions a device can perform are ones it "wouldn't mind

doing," requiring only an EGO +10 Effect Roll. Higher levels of Mind Control are only necessary against sentient machines — artificially intelligent Computers and other devices that have EGO and often object to being involuntarily controlled.

However, in some cases even a non-sentient machine may "object" to being Mind Controlled. Specifically, any computer or other machine with pre-programmed instructions about what it should or should not do may require an EGO +20 or even EGO +30 Mind Control result, depending on the programming and what the cyberkinetic wants the machine to do. For example, suppose that all robots in a Star Hero setting are programmed with an Inviolable Law: a robot must not harm a human being. If a cyberkinetic character uses Mind Control on one of these robots and orders it to attack a human, that's going to require an EGO +30 Effect Roll.

MIND SCAN

Cyberkinetic characters use Mind Scan to find one machine among the many in existence. Attacking a device through a Mind Scan lock-on is a great way to, for example, cyberkinetically hack into a computer from miles away. Standard Mind Scan rules work the same for the Machine class of minds as for Human or any other class. For example, at "greater than EGO" a character can communicate with a machine via cyberkinetic telepathy, and a cyberkinetic can use Mind Scan just to count the number of devices in a given area if desired. (In the latter case, the GM might restrict him to devices of any given type, such as "computers" or "kitchen appliances," rather than counting "all devices.")

TELEPATHY

Cyberkinetic Telepathy ("cyberpathy") is used to communicate with machines, read files on hard drives, and the like. The character mentally interfaces with a machine to read its files and records of use. For example, he could scan the buffer of a fax to find out about incoming and outgoing faxes, or the hard drive of a computer to find out what the files it contains says. He can also send his own thought and "talk" to machines. He could also "talk" to people through a machine by causing "typed" words to appear on a viewscreen/monitor. He cannot, however, make permanent changes to computer files or the like; that requires a Mental Transform (see below).

Given the standard speed of Telepathy (one fact per Phase), it may take a character a long time to find the fact he wants if he doesn't have a good idea about where to start searching. If necessary, the GM can have the character make an EGO Roll, with a penalty based on the amount of data, to find what he's looking for quickly; the more the character makes the roll by, the quicker he finds the data. (The GM can adapt the Mind Scan Modifiers table to determine the penalty, with 1 megabyte equal to one person, and 1 gigabyte of information equal to 10 people [-2 penalty], then doubling the gigabytes for each step down the table.)

When a character uses Telepathy to "read" a computer or the like, "surface thoughts" include any program currently open or running (and all data files those programs contain). Deep, hidden thoughts include any program installed on the computer, but not currently open, running, or otherwise active (and all that program's data files). Memories include any deleted programs or files, any Psychological Complications a sentient computer has, and possibly some programs the computer hasn't run or activated for a long time (a month or more). Non-sentient machines generally don't have subconscious thoughts, but you could use this level for any programs or files thoroughly erased. Machines count as being "unconscious" for purposes of Telepathy if they're unplugged (just being turned off doesn't qualify).

MENTAL TRANSFORM

A Transform of a machine's "mind" is how a cyberkinetic can alter the files or programs in a computer or similar devise, permanently changing how it functions. Mental Transforms are discussed on 6E1 306.

A Cosmetic Mental Transform would allow a cyberkinetic to make purely cosmetic changes to the programs or files in a computer. For example, he could change the colors of the characters in a computer game permanently. Making more serious changes — altering the data in a file (or erasing it completely), changing the way a program works, or the like — requires a Minor, Major, or Severe Transform, depending on how serious the changes are. For example, changing all instances of a name in a file to another name would be a Minor Transform, significantly changing the facts in the file without varying the overall content or nature of the file a Major Transform, and completely changing the contents of a file to something else altogether a Severe Transform. Changing a program for anti-aircraft defense into one for naval defense would be a Major Transform; changing it to a cooking program would be a Severe Transform.

For purposes of Cyberkinetic Transforms, the GM has to determine the BODY of facts, files, and programs in computers and other devices. Some possible ways to do this include:

- Each X amount of hard drive space taken up by a program or file (such as 1 megabyte, or 1 gigabyte) counts as 1 BODY.
- A file's or program's BODY depends on how important and well-protected it is. Thus, day-to-day programs and business records would have 1-3 BODY, while sensitive government and military programs and files could have 20 BODY or more.
- A program or file that's simply software, easily installed or removed, would have a low BODY score (probably 1-5), whereas programs and files "hard-wired" into a machine directly would have more (6+).

POSSESSION

Type: Mental Power/Attack Power
Duration: Constant
Target: Target's DMCV
Range: LOS
Costs END: Yes
Cost: 60 Character Points for standard Possession; +2 points of Mind Control effect for every +1 Character Point; +2 points of Telepathy effect for every +1 Character Point

A character with this Mental Power can "possess" other beings, taking total control of them, their senses, and their abilities. Examples of Possession include a ghost who merges with living people to make them do its bidding, a psychic supervillain with mental control powers, or a cyberkinetic who can "take over" machines. Possession costs 60 Character Points.

To use Possession, the character makes an MCV Attack Roll. If he succeeds, he has Possessed the victim. The victim gets Breakout Rolls according to the standard Mental Powers rules, but the Breakout Roll never "improves" (*i.e.,* the victim gets no bonuses for the passage of time).

Possession has several effects: control of the victim; use of the victim's senses; and access to the victim's thoughts and memories.

CONTROLLING THE VICTIM; USING HIS ABILITIES

First, the victim of Possession can be controlled as if subject to Mind Control. At the basic level of Possession, this is as if the character had made a Mind Control Effect Roll of 40 — enough to achieve an EGO +30 result (total control) against someone with EGO 10 or less and no Mental Defense. (If the target's EGO is higher than that, or he has Mental Defense, the Possession will establish a lesser degree of control over him.) A character can increase the strength of his Possession at a cost of +2 points of effect for every +1 Character Point.

Example: *Hypnos wants to be able to Possess people, even people with great willpower (such as superheroes). He buys Possession for a base cost of 60 Character Points, but increases the Mind Control effect by +20 points, for a final cost of 70 Character Points for his Possession. When he uses it, it's as if it had an Effect Roll of 60 with Mind Control.*

A character using Possession communicates orders to the victim telepathically (he can take the *Incantations* Limitation for Possession if he has to communicate them verbally; see below). He may change the victim's orders at any time as a Half Phase Action; this does not require a new Attack Roll, but the orders cannot be ones that require a higher level of "control" than he's achieved.

If the target has such a high EGO, and/or so much Mental Defense, that the "Mind Control" aspect of Possession cannot establish at least an EGO +20 result, the Possession fails entirely.

PHYSICAL AND MENTAL ABILITIES

While Possessing a victim, a character retains the following: his own EGO, INT, PRE, OMCV, and DMCV Characteristics; all Intellect and Interaction Skills; all Skills which are not necessarily based on INT or EGO but which reflect intellectual learning with no physical skills (for example, he can use his Languages, but not his TFs, which require some physical abilities); all of his mental and psionic powers; and his mental Complications (such as Enrageds/Berserks and Psychological Complications). However, he retains none of his physical Characteristics or abilities. Instead, he can use all of the host body's physical Characteristics (including OCV and DCV), physical Skills (such as Climbing, Combat Driving, and most types of Skill Level), and physical abilities. The Possessing character typically knows what the victim's Skills, powers, abilities, and other attributes (whether they're of a normal or superhuman nature) are, thanks to the telepathic aspects of the Power (see below). He has full access to and control over these abilities. He could, for example, force the victim to shoot his Blast at a friend, fire his gun, use his Lockpicking to open a door, cast his Lightning Bolt Spell, or the like. In some cases the GM may require the character to succeed with EGO Rolls to make the host body function properly, at least for the first few Phases of use.

SPEED; THE POSSESSOR'S BODY

While Possessing a victim, a character acts on the victim's SPD. If the victim had a Phase in the Segment when he was Possessed that he hadn't used yet, the Possessing character doesn't get to use that Phase, because he's already acted in that Segment; the Phase is simply lost. However, the character gets to act on the victim's next Phase, regardless of what the character's own SPD is in his own body.

Example: *Hypnos uses his Possession to take control of Mighty Man. Hypnos is SPD 5 and Mighty Man is SPD 6. Hypnos successfully Possesses Mighty Man on his (Hypnos's) Phase in Segment 5. Mighty Man's next Phase is in Segment 6, and Hypnos can act through Mighty Man's body at that time.*

Suppose Hypnos (EGO 25) had Possessed Mighty Man (DEX 20) in Segment 8, when they both have a Phase. Hypnos gets his Phase first, since Mighty Man's DEX is lower than his EGO. Although Mighty Man has a Phase this Segment that he hasn't used, Hypnos doesn't get to use it because he's already taken his Phase in Segment 8. He can act through Mighty Man's body as soon as it gets another Phase — in Segment 10.

While a character uses Possession, ordinarily his own body is unable to act, or even to perceive (see below). If the Possessing character wants to make his own body perform some action, he has to use one of the Possessed body's actions to "shift focus" back to his own body as a Full Phase Action. The Possessed victim can do nothing else in that Phase (but remains Possessed).

The character may now act through his own body, using only his own Skills, Talents, powers, and abilities on his next Phase (he does not get a Phase in his own body in the Segment in which he "shifted focus" back to it). The Possessing character must then continue to act only through his own body until he "shifts focus" back to the Possessed body using these same rules.

SENSES

Second, the Possessing character uses all the Senses of the Possessed victim. This includes Senses the Possessing character does not have himself. All of the Possessing character's own Senses are "blinded" for the duration of the Possession (unless he buys the *No Blackout* (+¼) Advantage for his Possession). This may make it difficult (or even dangerous) for him to move his own body or take actions with it. If he can perceive his own body with the Possessed victim's Senses, that's usually sufficient for him to know what he can and cannot safely do with his own body, where it can move to, and so forth. However, if he makes an attack using his own body, he suffers the standard penalties for not being able to perceive the target with a Targeting Sense, even if the Possessed victim can perceive the target.

MEMORIES

Third, the Possessing character has access to all of the Possessed victim's surface thoughts, deep thoughts, and memories (but not to his subconscious). In effect, at the base level of Possession it's as if the character has Telepathy and made an Effect Roll of 30 — enough to achieve an EGO +20 result (memories) against someone with EGO 10 or less and no Mental Defense. (If the target's EGO is higher than that, or he has Mental Defense, the Possession will establish a lesser degree of Telepathic contact with him.) A character can increase the strength of his telepathic contact at a cost of +2 points of effect for every +1 Character Point. Searching through the victim's mind for facts is done using the rules for Telepathy at the Possessed victim's SPD.

DRAWBACKS TO POSSESSION

Although it's a powerful ability, Possession is not without its drawbacks. Foremost among them is that the Possessing character takes the full STUN and BODY damage done to the Possessed victim, as well as damage done to his own body. He applies the victim's defenses against damage done to the victim, and his own defenses against damage done to his own body.

Second, Possession costs END to use. This END cost is paid by the Possessing character's own body, not by the Possessed character, on the victim's Phases. Furthermore, as long as Possession is in effect, the Possessing character's body gets *no* Recoveries, not even the Post-Segment 12 Recovery. However, the Possessing character may "resume control" of his own body as described above and have it take a Recovery as a Full Phase Action (per the usual Recovery rules). If he's controlling his body in Segment 12 this way, his body gets the Post-Segment 12 Recovery, but the Possessed victim's body does not.

As a Constant Power, Possession requires a character to spend END to maintain it. If he stops spending END for any reason, or if Powers that cost END are shut off for some reason, the Possession immediately stops affecting the target, freeing him from it entirely (as if he'd succeeded with a Breakout Roll). This also occurs if the Possession has been bought to cost 0 END (or to cost END only to activate) and the Possessing character is Knocked Out or killed.

If Possession is made 0 END and Persistent, it remains in effect until the character turns it off. But if he's Knocked Out and the Possessed character is not, the victim won't be subject to his control or orders (not even ones previously given) as long as the character's unconscious. As soon as the character returns to consciousness (*i.e.,* 1 STUN or more), the Possession immediately reasserts itself at its former level of control.

Third, other people can help the victim break free from Possession by using Mental Powers on him. See the *Competing Mental Powers* rules on 6E1 152.

Fourth, a character can only Possess one target at a time. If he tries to Possess a second target while already Possessing someone and succeeds, his Possession immediately "shifts" from the first target to the second, freeing the first one entirely (as if he'd succeeded with a Breakout Roll). Characters cannot use Possession with Area Of Effect, Autofire, Multiple Attack, or any other game element or method that would allow it to affect two or more targets simultaneously.

Fifth, if the body of the character using Possession is killed, the Possession ends immediately and the character dies — whatever part of him was Possessing the victim perishes when his body does. Alternately, at the GM's option he may continue to exist as a disembodied mental force seeking a new home, remain trapped in the victim's body and have to constantly fight for control of it, or the like.

DEFENSES VERSUS POSSESSION

Potential victims of Possession aren't helpless. First, as described above they get standard Breakout Rolls to escape its effects (though the Breakout Roll doesn't improve over time).

Second, a high EGO and/or Mental Defense may make it difficult or impossible for the Possessor to achieve full Possession. If the "Mind Control" and "Telepathy" aspects of Possession are reduced, the Possessing character has less control over the victim and less access to his thoughts and memories. (Mental Defense reduces *both* effects at once; the victim doesn't have to choose which one to apply it to.)

Third, Mental Defense also protects against the use of the victim's Senses. For every full 10 points of Mental Defense, the Possessing character does not gain access to one of the victim's Sense Groups (the victim chooses which one).

Fourth, Mental Damage Negation and Mental Damage Reduction can protect against Possession. For Mental Damage Negation, reduce the "Effect Rolls" of the "Mind Control" and "Telepathy" aspects by 5 points per -1 DC; also, the Possessing character does not gain access to one of the victim's Sense Groups for every full -2 DCs of Mental Damage Negation (the victim chooses which one). Mental Damage Reduction reduces the "Effect Rolls" of the "Mind Control" and "Telepathy" aspects as usual for that Power, but has no effect on the Senses.

POWERS

Mental Powers: Other characters can use the rules for complementary Mental Powers (6E1 152) to try to help the victim of Possession break free from it. In this case they target the victim's MCV and EGO. If they want to attack the Possessor's mind, they use his MCV and EGO.

Desolidification (Projection): If a character Links Projection to his Possession, or otherwise ordinarily uses them together, the Projection cannot take the *Feedback From Host Body* Limitation, since Possession already imposes that effect on the character. If Projection is frequently used on its own, then that Limitation could be taken for it.

Endurance Reserve: If Possession is powered by an Endurance Reserve, the Reserve gets its Post-Segment 12 Recovery normally, despite the standard Possession rule that the Possessor's own body doesn't get to take Recoveries.

ADVANTAGES

Area Of Effect: Characters cannot buy this Advantage for Possession. If a character's own body and the body he's Possessing are hit by the same Area Of Effect attack, the character takes the damage twice — once for each body that was hit.

Area Of Effect — Damage Shield: If the victim of Possession has a Mental Damage Shield, the character using Possession suffers its effect on every one of the victim's Phases (not the character's own Phases).

Autofire: Characters cannot buy this Advantage for Possession.

Invisible Power Effects: Ordinarily the victim of Possession remembers that he was Possessed, and what he did while Possessed, after the Possession ends. With the GM's permission, a character can buy the +½ "make the Target Effect of a power Invisible to the victim" form of Invisible Power Effects for Possession. In that case, after the Possession ends the victim will remember his actions while Possessed and think they were natural. Or, if the character prefers, the victim remembers nothing of the Possession period — the time while Possessed is a "blank slate" in his memory.

No Blackout (+¼): If Possession has this Advantage, the Possessing character can use both his own body's Senses and the Possessed victim's Senses simultaneously. This in effect gives him two "perception points" and potentially a much broader range of sensory capability. (However, the standard rules about when his own body can take Actions still apply, which restricts it from making many PER Rolls except when the character "resumes control" of it.) Using two sets of Senses doesn't require any rolls or cause him any difficulties.

No Feedback (+½): Possession with this Advantage lacks the standard "feedback" effect. If the Possessed victim takes damage, the Possessing character suffers no ill effects.

Sticky: Characters cannot buy this Advantage for Possession.

LIMITATIONS

Incantations (-¼): Some forms of Possession lack the ability to communicate orders telepathically. The Possessing character has to use his own body to issue orders verbally, which (a) requires him to "resume control" of his body to issue the order, and (b) requires the Possessed character to be able to hear the character's body speak.

Mind Transfer (-1): This form of Possession is not a one-way street. Instead of taking over the victim's body, the character "trades minds" with him. The victim's mind ends up in the character's body... with the exact same nature and degree of control as the character has over the victim's body!

With the GM's permission, once the character's mind is in the host body, he can, if he so desires, use Mind Transfer Possession again to "jump" from the host body to another host body. The mind of host body #2 would then take up residence in host body #1, while the character's mind occupied host body #2. A character could mentally "jump" through an entire crowd of people this way, possibly leaving a mighty confused group of victims in his wake.

If a character using Mind Transfer Possession wants to take back control of his own body, at the GM's option just turning off the Possession isn't enough — he has to succeed with an MCV Attack Roll against the target's mind to in effect "Possess" his own body back.

No Memories (-½): This form of Possession grants the Possessing character *no* access to the Possessed victim's thoughts or memories. Among other things, this means the Possessing character won't necessarily have full knowledge of the Possessed victim's powers and abilities — he'd know about any ability he'd previously seen the Possessed victim use, or that he otherwise has independent knowledge of, but wouldn't be aware of abilities he had no way of learning about previously.

No Range: A character can take this Limitation to represent a form of Possession that requires him to touch his victim to Possess him.

Perceivable: Possession is Invisible just like any Mental Power. If a character wants it to be perceivable somehow, he can take this Limitation for it. Common forms of Perceivable Possession include the victim remaining free to speak ("Help! Something's controlling me!"), the character's and victim's eyes glowing the same color, a nimbus of light surrounding both the character's and the victim's head, and so forth.

MOVEMENT POWERS

The following additional, optional, or expanded rules apply to Movement Powers.

CHANGING THE COST OF MOVEMENT POWERS

Under the standard rules, all the major Movement Powers — Flight, Running, Teleportation — have the same cost, 1 Character Point per 1 meter. Leaping, Swinging, and Swimming cost half that, since they either suffer from some significant restrictions (Leaping, Swinging) or aren't usable as often (Swimming, Swinging). This is done in part so that most forms of movement have roughly equal costs and approximately as effective when it comes to adding damage from velocity.

However, some campaigns might prefer to adjust the cost of these Movement Powers based on their overall utility and effectiveness. Considerations like adding damage aside, some forms of movement are simply better, for game purposes, than others, and some GMs prefer that the Powers' costs reflect that.

Here's one possible arrangement for altering Movement Power costs based on usefulness. It's good for the "average" campaign, but ultimately it's up to the GM to determine costs for his campaign — in some games certain forms of movement may be more effective than others. For example, in a Fantasy Hero game set in an archipelago world, or a Champions game in a city with a prominent harbor and several rivers, Swimming may be much more important than in the average game.

Using this method, Running becomes the "default" form of movement to which other forms of movement are compared. It retains its cost of 1 Character Point per 1m.

Flight: Flight is the best form of movement in the *HERO System,* hands down. It's three-dimensional, thus allowing a character to avoid obstacles and get to difficult-to-reach places quickly, and even lets a character hover. It does suffer from a Turn Mode, but that rarely has much affect during play and is easy to avoid. Based on its utility, it should cost at least 2 Character Points per 1m, and possibly even 3 points per meter.

Leaping: For purposes of a utility analysis, Leaping is sort of like a Limited form of Flight. It allows a character to avoid some obstacles that would thwart or slow down a running character. On the other hand, it doesn't allow for change of direction mid-movement, requires a character to hit a "target location" to land accurately in some cases, can't be used in some cramped areas, doesn't allow for hovering, and leaves the character vulnerable in mid-air during "hang time" for long Leaps. At the very least it should cost no more than Running (1 Character Point per 1m), and depending on how restrictive those drawbacks are might even be cheaper (1 Character Point per 2m, as in the standard rules).

Swimming: For purposes of a utility analysis, Swimming is basically Flight with the Limitation *Only Works In Liquids.* In most campaigns it's worth 1 Character Point per 2m at best, and in some cases could even be cheaper.

Swinging: Swinging is comparable to Leaping in terms of its utility. It allows a character to avoid many obstacles that get in a running character's way, but it requires him to have a "swingpoint" (which restricts his movement in some ways) and a "swingline" to attach to it (which is usually vulnerable to attack). As with Leaping, it's difficult (if not impossible) to change direction in mid-Swing. So again, at the very least it should cost no more than Running (1 Character Point per 1m), and depending on how restrictive those drawbacks are might even be cheaper (1 Character Point per 2m, as in the standard rules).

Teleportation: Teleportation has a lot of advantages over running. By allowing a character to move from Point A to Point B instantaneously and avoid intervening obstacles, it's often the ideal form of movement. But like Leaping it has some drawbacks: it sometimes requires the character to designate a "target point"; the character has to pay extra to carry people with him; mis-Teleporting into a solid object can be fatal; it doesn't allow for hovering; and a character can't use Teleport to perform velocity-based Maneuvers like Move By. It should cost more than Running — probably 2 Character Points per 1m — but ideally less than Flight.

FINE-TUNING MOVEMENT ABILITIES

As an optional rule, the GM may allow a character to "fine-tune" how his Movement Power works by "trading off" the various aspects of the Power. For example, a player may declare that his character has unusually large wings, giving his better acceleration and deceleration but adding to his Turn Mode. Each set of trade-offs must be self-contained to a particular Movement Power; a flying character can't trade off part of his Running to improve his Flight.

For these purposes, every ±1m per meter of acceleration, ±1m per meter of deceleration, or ±1m of Turn Mode is equivalent. Thus, a character could trade 1m of acceleration per meter to decrease his Turn Mode by 1m, or increase his deceleration by 1m per meter. A character who's fast, but doesn't maneuver well, could obtain +1m acceleration per meter by accepting a +1m Turn Mode. The GM must approve all trade-offs.

ENDURANCE

There may be situations in which a character wants his Combat Movement to cost 0 END (or ½ END), but his Noncombat Movement to cost full END, or vice-versa. To do this, buy Reduced Endurance as a naked Advantage for the Movement Power with an appropriate Limitation (*Only Applies To Combat Movement* (-¼) or *Only Applies When Using Noncombat Movement* (-1)). The naked Reduced Endurance Advantage must be purchased for he full cost of his Movement Power, including any Adders.

ADVANTAGES AND ADDERS

Improved Noncombat Movement: If a character has two different movement abilities using the same Movement Power (for example, extra Running Linked to Growth, and some more extra Running Linked to Stretching), and buys Improved Noncombat Movement for each of them, the extra Noncombat Multiples add together when he uses both movement abilities at the same time. If he's only bought Improved Noncombat Movement for one of the abilities, it only applies when he's using that ability by itself.

At the GM's option, characters may purchase half the usual increase from a level of Improved Noncombat Movement for +3 Character Points. For example, a Movement Power that would ordinarily go from its standard x2 Noncombat to x4 Noncombat for +5 Character Points (an increase of +2 in the multiple) could increase to x3 Noncombat (half of the +2 increase, or a +1 increase in the multiple) for +3 Character Points. The total cost is 3 Character Points. If the power would go from x32 Noncombat to x64, the +3 Character Point version of Improved Noncombat Movement would increase it to (64-32=32, 32/2=16, 32+16=) x48 Noncombat. The total cost is 23 points (four normal +5 point increases, and one +3 half-increase).

Increased Acceleration and Increased Deceleration: Under the standard rules for acceleration and deceleration (see above), a character with Running 60m, x4 Noncombat, can accelerate or decelerate up to 60m per Phase, at the rate of 5m per meter. It would take him 12m of distance to reach full speed. If he were traveling at his full Combat Movement velocity, he'd also need 12m in which to stop. If he were traveling at his maximum Noncombat Movement velocity of 240m and wanted to stop, he could still only subtract 60m of velocity per Phase. That means he'd need four Phases to come to a complete stop, and during that time he'd travel (180m + 120m + 60m + 0m) 360m, or about a fifth of a mile.

Characters can improve the rate at which they accelerate by paying Character Points for an Adder, *Increased Acceleration*. For +2 Character Points, a character may increase its rate of acceleration by +1m per meter. Thus, for 2 points, a character could accelerate at the rate of 6m per meter; for 4 points, at the rate of 7m per meter, and so on. The GM may impose limits on how much extra acceleration a character can buy; generally, a character should not buy his acceleration up to the point where it approaches or equals his Combat Movement velocity (unless perhaps there's some Limitation or other restriction on the ability) — for that, use the *Improved Accelereation/Deceleration* Advantage. This Adder doesn't affect the character's Combat Movement for purposes of determining how much total acceleration he can apply in a Phase.

Similarly, for +2 Character Points, a character may buy *Increased Deceleration* to improve his rate of deceleration by +1m per meter. The same guidelines apply.

Attack Versus Alternate Defense: Characters cannot apply this Advantage to Movement Powers. To create a movement ability that lets the character move when his "EGO" occurs in the combat order, buy Lightning Reflexes with the Movement Power to make the character's DEX equal his EGO for that purpose.

Usable On Others: As a default rule, an Area Of Effect, Usable As Attack Movement Power must affect all persons within the affected area the same way. For example, if the character moves one person in the area 20m north, everyone in the area must move 20m north. However, at the GM's option, if the character applies the *Selective* Advantage to his Area Of Effect, he can affect each target individually, both in terms of distance traveled and direction traveled.

SENSE-AFFECTING POWERS

Here are some additional guidelines on the Mental Sense Group:

The Mental Sense Group is affected by Flash and Darkness somewhat differently than most other Sense Groups. This is because Mental Powers can be targeted two ways: through eyesight (or other Targeting Senses) or through Mind Scan.

A Darkness versus the Mental Sense Group prevents any use of Mental Awareness, Mind Scan, or other Mental Group Senses by affected characters. It also prevents the use of Telepathy and Mind Link, since, like a Darkness versus Hearing, it affects both the "mental hearing" and the "mental voice" aspects of those Powers. However, if the victim has LOS to his target, he can still use Telepathy and Mind Link on that target, since they work either through a Mind Scan "circuit" or through LOS. Mind Scan itself doesn't work on an LOS basis, so it doesn't matter whether a character in a Mental Sense Group Darkness field can see his target — the Mind Scan is effectively "blacked out."

A Flash versus the Mental Sense Group is another story. It also blocks Mental Awareness, Mind Scan, or other Mental Group Senses, but it only Flashes the "mental hearing" aspect of Telepathy and Mind Link. The "mental voice" aspect of those Powers still functions (similarly, a character

suffering from a Hearing Group Flash can still talk). Since Mind Scan is Flashed, Telepathy and Mind Link can only be targeted through LOS. The character cannot read the thoughts of anyone he can establish LOS on — his "mental hearing" has been "deafened" — but he can send his thoughts to other persons. If he already has a Mind Link established when the Flash goes off, the "mental voice" aspects continue to function, but the "mental hearing" aspects are cut off.

Additionally, characters can affect Mental Powers with Sense-Affecting Powers that affect the Sight Group (or any other Sense Group that contains Targeting Senses used to establish LOS). If a character doesn't have Mind Scan and his Sight is blocked by Darkness or Flash, he is effectively unable to use his Mental Powers. If any mental effects are in existence when the Darkness or Flash is used against him, such as Mental Illusions or Mind Control, his control over those powers is cut off, but they remain in effect at whatever level they were at when cut off and deteriorate as per the rules from then on.

SIZE POWERS

Growth and Shrinking, and the Size Templates on which they're ultimately based, assume you're starting at normal human size. However, not all characters are human size; some buy a Size Template so that they're always larger or smaller than normal. This has potential implications for the use of Growth and Shrinking, since the two Powers cannot "mirror" one another.

SMALL CHARACTERS USING GROWTH

As shown in the *Small* Size Templates and in the *Shrinking* Power, being smaller than normal doesn't automatically reduce a character's STR, CON, PRE, defenses, BODY, STUN, or Running. The negative effects it has, as indicated in the mandatory Physical Complication, are being ⅛ mass, a halving of Reach, and suffering +6m of Knockback (distance only) per halving of height.

Therefore, in most cases, all that a level of Growth needs to do for a small character is double his height, double his Reach, and add -6m of Knockback Resistance. Since that's all Growth provides, each level should only cost 3 Character Points. Once a small character reaches normal human size this way, if he wants to Grow further he has to buy normal Growth at the costs listed in the table on 6E1 229.

However, if a smaller than normal character has sold back STR, CON, Running, or other abilities to represent his small size, if he uses Growth the power needs to compensate for that. Add in the necessary abilities and then recalculate the cost per level using the information in the Toolkitting box on 6E1 230.

There may also be situations in which a permanently smaller than normal character wants to gain some Growth-style benefits — more STR, CON, Running, or the like — as he gets larger. In that case, again the solution is to add in the necessary abilities and then recalculate the cost per level using the information in the Toolkitting box on 6E1 230.

SMALL CHARACTERS USING SHRINKING

If a permanently small character wants to use Shrinking to become even smaller, first determine which "level" of Shrinking he fits into based on his usual size. Then he can buy levels of Shrinking down from there at the standard cost of 6 Character Points per level.

For example, suppose that a character is normally 0.5m tall — one-fourth normal human size, equivalent to two levels of Shrinking. That means he's paid for +4 DCV and +4 to Stealth by buying the *Diminutive* Size Template, and taken the appropriate Physical Complication. If he now buys one level of Shrinking for 6 Character Points, when he uses his Shrinking he becomes one-eighth human size (.25m tall, total of +6 DCV and +6 to Stealth rolls). The level of Shrinking reduces him to the equivalent of three levels of Shrinking, with abilities to match.

LARGE CHARACTERS USING SHRINKING

A large character who uses Shrinking experiences the following effects: x⅛ mass; x½ Reach; gains +2 DCV; gains -2 to others' PER Rolls to perceive him; and suffers +6m Knockback from attacks (only for distance, not damage). In effect this "negates" part of the increase in mass, Reach, and Knockback Resistance provided by the character's Size Template and part of the Target Size penalties imposed on the character by his mandatory Physical Complication. Since these are the same benefits provided to a normal-sized character who buy Shrinking, the cost of the Power remains the same: 6 Character Points per level. (In the case of Knockback, rather than use the standard Shrinking rule, in most cases it will be easier and better to simply have the "extra KB" that the character takes from being smaller directly reduce the meters of Knockback Resistance he gets from being larger than normal.)

As with normal-sized characters, Shrinking bought by larger-than-normal characters doesn't reduce the character's Characteristics or Running. 6E1 281 notes that characters *can* have Shrinking proportionately reduce their powers by applying a -¼ *Reduced By Shrinking* Limitation to any affected ability. If a character applies that Limitation to the abilities gained from his *Large* Size Template, then each level of Shrinking used reduces the ability to what's listed in the next-smallest template. For example, if a Colossal character (+90 STR, +72m Running) has made his STR and Running Reduced By Shrinking, then one level of Shrinking reduces them to the STR and Running listed in the *Gargantuan* Size Template: +75 STR and +60m Running.

LARGE CHARACTERS USING GROWTH

If a permanently large character wants to use Growth to become even larger, first determine which "level" of Growth he fits into based on his usual size. Then he can buy levels of Growth up from there. To determine the cost of his first level of Growth, subtract the cost of his "current" level of "Growth" from the cost of the level he's increasing his size to (see the Growth Table on 6E1 229). Additional levels after that have their normal cost.

For example, suppose that a character is normally 16m tall — eight times normal human size, equivalent to three levels of Growth. That means he's paid for the *Huge* Size Template and taken the appropriate Physical Complication. If he wants to buy a level of Growth to double his size to 32m (Gigantic), he pays the cost difference between his equivalent level of Growth (Huge) and what he'll be when he doubles his size (Gigantic): 120 - 90 = 30 Character Points. If he wants to buy a second level of Growth, so he can increase his size to 64m (Gargantuan), he has to pay the additional 30 Character Points (what it would normally cost to increase Growth from four levels [120 points] to five [150 points]). A third level, to Colossal (125m tall), would cost 65 more Character Points, as shown on the Growth Table.

ABSORPTION

If a character has two Absorptions Linked together to act as a single compound power, they function as a single instance of Absorption and gain or lose points as a single unit. Each would lost 5 Character Points' worth of effect per Turn (or over whatever Delayed Return Rate period has been purchased for the power).

ABSORBING FROM STUN-ONLY ATTACKS

In the GM's discretion, a character can Absorb from STUN-only attacks, if doing so would be reasonable according to the special effects involved and not unbalance the game. For example, a character with Physical Absorption might be able to Absorb from a STUN Only Blast defined as a rubber bullet (because it has a definite Physical impact), but not from a tranquilizer dart or an Enervator Ray. If the attack is one the character can Absorb (for example, it's an Energy attack, and he has Energy Absorption), count the Normal Damage BODY. That represents the amount of "BODY" he can Absorb from that attack, even though the attack itself doesn't cause BODY damage. The GM can apply the same reasoning to Powers that don't directly "damage" the character, like Dispel, though he should be even warier about allowing characters to Absorb from them than from STUN-only attacks.

ABSORBING FROM MENTAL ATTACKS

With the GM's permission, a character can define Absorption as working against Mental attacks instead of Physical or Energy attacks. To determine the strength of a mental attack, count the "Normal Damage BODY" rolled on its effect dice. Mental Absorption doesn't have to be bought with AVAD or any other Advantages; it simply has to be defined as working against Mental attacks.

If the character also wants to Absorb Physical or Energy attacks which are not EGO-based but which are defined as "mental powers" (such as some psychokinetic abilities), he can buy Physical or Energy Absorption with the *Limited Special Effect* (mental powers, -1) Limitation. For purposes of Absorption, telekinetic force blasts and similar attacks are regarded as either Physical or Energy attacks (as defined by the character possessing the power); they're not "mental attacks."

If the points Absorbed through a Mental Absorption go to EGO, the increased EGO doesn't help a character resist the effects of the attack he's Absorbing, but they may increase his EGO Roll for purposes of breaking out of that attack.

Example: *Brainstorm buys Absorption 10 BODY versus Mental attacks; the Absorbed points go to his EGO. Mentalla attacks him with Mind Control 10d6. The GM counts the "Normal Damage BODY" on the Mind Control dice and gets 9. Brainstorm can Absorb all 9 "BODY" from the Mind Control. His EGO increases by 9. Although this won't help him resist the effects of the Mind Control (*i.e., *the GM still uses his base EGO to determine the level of effect achieved by the Mind Control roll), he has +2 to his Breakout Roll when trying to break free from the Mind Control.*

HEALING VIA ABSORPTION ⚠

In genre fiction it's not uncommon for some characters (particularly ones with "bodies of energy" or similar powers) to "heal" themselves by absorbing energy from outside sources. For example, an electricity elemental who's been injured by an attack (or perhaps by using his powers too much) could touch a wall socket and draw electricity from it into himself to "heal" himself or replenish his spent energy.

In game terms, powers such as this are typically built with Absorption as the base Power, plus a Linked Healing of some sort. But at the GM's option, a character can take the new +0 Advantage, *Healing Effect,* for those Powers. Absorption with Healing Effect must be defined to affect only the Characteristic or Power the character wants to "heal" (typically BODY, STUN, or both at once), only works when that Characteristic or Power is below its ordinary starting total, and can only increase that Characteristic or Power up to its ordinary starting total... but the effect of the Power is permanent, just like Healing is. Unlike Healing, a character can use Absorption with Healing Effect again and again on himself without restriction, though the GM may choose to impose restrictions on it similar to those on Healing if players use a Healing Effect power improperly.

Example: *Kasdrevan (a wizard with 10 BODY) has a spell, the Incantation of the Healing Blow, which causes attacks made against him to heal him! He defines this as Absorption 10 BODY (physical, to BODY), Healing Effect (+0). Because he's applied the* Healing Effect *Advantage, he can't split the Absorption between, say, BODY and PD — it can only affect BODY, the Characteristic he wants to "heal." Furthermore, the Absorption only works when his BODY is below 10 due to injuries or other factors, and cannot increase his BODY beyond 10. However, any BODY gained from the Absorption remains with him permanently (until lost to another injury or the like); the points gained don't fade away as they would with an ordinary Absorption power.*

AID

A character cannot refuse to accept an Aid. However, (a) he could Abort to make it harder for the character with Aid to succeed with the necessary Attack Roll, and/or (b) refuse to use an Aided Characteristic at its full amount for some reason. Additionally, if a character doesn't want to be Aided, his Power Defense (if any) reduces the effect of the Aid.

If a character buys Boost in a Power Framework and switches the Framework to another slot, the Boost immediately stops working — the character can no longer pay END to maintain it since it's not active.

BARRIER

If an attack doesn't do enough BODY damage to get through a Barrier, it doesn't do Knockback to the character who created the Barrier. If the character wants to take Knockback from any attack that could do Knockback regardless of whether it penetrates the Barrier or not, he can take that as a -½ form of the *Feedback* Limitation.

The BODY from Coordinated attacks *does not* add together for purposes of damaging a Barrier, or any other purpose. If one Coordinated attack creates a hole in a Barrier (or destroys it), then all the other attacks being Coordinated are considered to occur "after" that attack so they pass through the hole.

Even if formed into a globe or similar shape, a Barrier doesn't take Knockback or get moved by attacks.

BACKLASH

The *Backlash* (+½) Advantage described in 6E1 172 applies only to Barriers used to englobe targets. However, the GM permit characters to use it with ordinary Barriers instead. In that case *any* attack that hits the Barrier from any side triggers the Backlash effect (this doesn't apply to attacks made through the transparent side of a One-Way Transparent Barrier). Consider this a "Caution Sign" ability.

MULTIPLE BARRIERS

Characters can use Barrier multiple times (either once per Phase over several Phases, or in a single Phase via Multiple Attack, Autofire, or similar methods) to create multiple Barriers in concentric rows, Barriers that attach to one another to create a longer or taller Barrier, or the like, unless the GM rules otherwise. The GM should monitor any use of "stacked" Barriers to ensure that they don't unbalance the game by allowing a character to provide himself with lots of protection for relatively little cost.

ADDERS

Dismissable: As noted in 6E1, a Barrier is a physical object that remains in existence until destroyed (or until its creator stops paying END, in the case of Barriers that cost Endurance to maintain). However, in some cases characters may want to be able to instantly remove the Barriers they create. A Barrier with the +5 Character Point Adder *Dismissable* can be removed by its creator if he takes a Zero Phase Action to do so.

At the GM's option, characters can also apply this Adder to other Instant Powers that have some sort of "lingering" effect, such as Entangle or Mind Control. It cannot be used to instantly "heal" the effects of an Attack Power, such as STUN or BODY damage.

LIMITATIONS

Always On: Making a Barrier Always On doesn't cause it to instantly re-create itself after it's broken by an attack. The character must still take a Zero Phase Action to activate the Barrier again.

BLAST

In a (very) theoretical sort of way, you can think of Blast not as a Power that "causes damage," but as a Power that "subtracts points of a Characteristic." The standard Blast subtracts points of STUN (and perhaps BODY) from a target if the total on the dice exceeds the target's defenses. That raises the possiblity of substituting other Characteristics for STUN and BODY. For example, perhaps a character could buy a Blast that subtracts points of CON instead of STUN and REC instead of BODY. This could pose serious game balance problems, though, so consider it a "Stop Sign" suggestion.

ADVANTAGES

Increased STUN Damage: At the GM's option, characters can buy the Advantage *Increased STUN Damage* for Blast. For a +¼ Advantage, the character increases the STUN damage rolled for his Blast by an amount equal to the dice (not DCs) in the attack, thus improving his chances of doing STUN damage to the target, Stunning the target, and so forth. For example, a Blast 6d6, Increased STUN Damage would add +6 STUN to every roll.

Characters may buy this Advantage multiple times for a single attack, adding the dice in the attack as STUN for each purchase (thus doing 2x dice in extra STUN for a +½ Advantage, 3x dice in extra STUN for +¾, and so forth). The GM may establish a limit on how many times a character can purchase this Advantage for a single attack, if desired.

CHANGE ENVIRONMENT

In most cases a Change Environment that's bought with Area Of Effect only affects characters who are actually in the Area. However, in some cases phenomena passing through the Area may be affected as well. For example, if a character tries to perceive through an area with a CE that reduces PER Rolls, that reduction applies to his attempts to perceive things on the other side of the CE field. If he fires a Ranged attack through a CE field that increases the Range Modifier, that increase affects the Range Modifier for his attack.

CHANGE ENVIRONMENT TO IMPOSE LIMITATIONS ⚠

A character who wants to impose a Limitation on another character's power permanently (or for a long period of time) uses Transform (see 6E1 304). However, there may be situations where a character only wants to impose a Limitation for a short period of time by paying END to maintain the effect. You can do with with Change Environment, though the GM may restrict this to only the single-target form of Change Environment.

The GM determines the combat effect cost of imposing a Limitation, but typically it's a 5 Character Point combat effect per -¼ worth of Limitation imposed. Limitations imposed by Change Environment can make a power more difficult to use in some way, but cannot deprive the target of the use of the power altogether (for example, a character couldn't impose the Limitation *Only Works At Night* on a power during the daytime). The imposed Limitation should also be one that could logically be added or removed by a Constant Power. For example, it's perfectly plausible for a power to temporarily cost more END (*i.e.,* to have Increased Endurance Cost imposed on it by CE). But generally speaking it would defy common and dramatic sense for a power to suddenly have Charges or Focus, then to go back to not having Charges/Focus once the Change Environment effect ends.

CHANGE ENVIRONMENT TO REMOVE ADVANTAGES ⚠

The flip side to imposing Limitations on a power is removing a power's Advantages temporarily. The GM determines the combat effect cost of removing an Advantage, but typically it's a 5 Character Point combat effect per +¼ worth of Advantage removed. For these purposes the GM may want to consider "sub-types" of an Advantage as separate Advantages. For example a character would have to buy Change Environment (Remove Area Of Effect [Radius]), and couldn't affect Cones, Lines, Any Area, Surface, or Explosion with it. As with imposing a Limitation, removing an Advantage has to comply with common and dramatic sense. It's perfectly plausible to remove a power's Reduced Endurance temporarily in most cases (though perhaps not for an Always On power), but it might be odd for an attack to be NND one second and work against its standard defense the next.

CHANGE ENVIRONMENT TO IMPOSE COMPLICATIONS ⚠

Continuing the "Change Environment as a short-term, Constant variant of Transform" theme, the GM could permit a character to temporarily impose a Complication on another character via CE. The GM determines the combat effect cost of imposing a Complication, but typically it's a 5 Character Point combat effect per 5 Character Points' worth of Complication (or fraction thereof). However, any Complications imposed cannot be so severe as to significantly incapacitate or seriously harm the character. For example, temporarily giving a character a die or three of Unluck, a Vulnerability to an uncommon form of attack, or a Fear Of Rats is probably permissible in most circumstances. Inflicting *Physical Complication: Breathes Pure Xenon, Susceptibility: to air,* or *Vulnerability: 2 x STUN and BODY from Physical Attacks* probably is not.

MENTALIST CHANGE ENVIRONMENTS

Clever mentalists can find many uses for Change Environment. First, there are some combat effects specifically related to psionics that the GM can allow. These include:

- EGO reduction (-1 point of EGO): 5 Character Points
- EGO Roll reduction (-1 to EGO Rolls): 3 Character Points
- Breakout Roll reduction (-1 to Breakout Rolls): 3 Character Points (this assumes Breakout Rolls are the most common type of EGO Roll in the campaign; if that's not the case the GM may want to lower the cost to 2 Character Points per -1)
- Danger Sense roll reduction (-1 to Danger Sense rolls): 2 Character Points
- Precognition (or Retrocognition) reduction (-1 to PER Rolls with that Sense): 2 Character Points

CHANGE ENVIRONMENT: SUFFOCATION

At the GM's option, a character can use Change Environment to attack a target with a "suffocation" effect. This deprives the target of the ability to breathe and subjects him to the Drowning rules (6E2 130). (Of course, it's possible to build "he can't breathe" attacks many other ways, such as with AVAD, but those forms usually work very quickly; CE Suffocation works slowly according to the Drowning rules.)

Suffocation via Change Environment is a 20 Character Point combat effect that subjects the target to the effects of drowning: he cannot breathe; he cannot take Recoveries (not even the Post-Segment 12 Recovery); and spends a minimum of 1 END every Phase (and eventually STUN, and then BODY, when he runs out of END). (Obviously, this doesn't work at all on targets that have Life Support: Self-Contained Breathing.) Additionally, a character being suffocated cannot speak or use powers with the *Incantations* Limitation (but he can still use voice-based powers such as a "sonic scream," unless the GM rules otherwise). When a character buys Suffocation he must define a reasonably common and obvious way to remove, negate, or avoid the effect (other than Life Support). If the Change Environment is bought with Area Of Effect, the reasonable way is "get out of the Area"; for single-target Change Environments characters will have to define more specific methods.

CHANGE ENVIRONMENT: STUNNING

At the GM's option, characters can also use Change Environment against a single target to create an attack that Stuns the target without reducing his STUN. This combat effect costs 30 Character Points.

When used, this form of Change Environment Stuns the target, subjecting him to all the effects described on 6E2 104 (except for the loss of STUN; his STUN total isn't reduced). The Stunned effect lasts as long as the Change Environment is maintained. However, when affected the victim gets to make a CON Roll immediately, and if the roll succeeds the attack has no effect on him. If the roll fails, he gets to make an additional CON Roll every Phase he's affected at a cumulative +1 (so +1 on his second roll, +2 on his third, and so on). As soon as any roll succeeds, the power immediately stops affecting him and he has his full Phase in which to act. To affect him further, the character using the Change Environment has to use an Attack Action and successfully attack him again.

To counteract the CON Roll, a character buying Change Environment (Stun) can include penalties to CON Rolls as an additional combat modifier.

CLAIRSENTIENCE

Clairsentience doesn't let a character instantly find an object in an unknown location. Clairsentience may speed a search because the searcher doesn't physically move from location to location, but searching a town for something as small as a single person could still take days. Searching a major city for a villain's hideout could take weeks.

A character has to be able to perceive the target location of his Clairsentience to position his perception point properly (and as noted in the rules, the GM may require an Attack Roll against DCV 3 to do this successfully). If he cannot perceive the target location, he either can't place the perception point there or has to make his Attack Roll using the rules for lack of a targeting sense.

In some cases a character who has Clairsentience with a Mobile Perception Point may want to "attach" the perception point to an object that's under someone else's control. In that case, the character's ability to perceive the perception point only matters when he establishes that perception point by activating the power. Thereafter all that matters is that the perception point remain within range of his Clairsentience; whether he can see it with his own eyes is irrelevant.

Precognition And Retrocognition

Two of the most common forms of Clairsentience in many settings are Precognition (the ability to perceive the future) and Retrocognition (the ability to perceive the past). Either form is typically bought with a -1 Limitation, as described on 6E1 181; at the GM's option, a character can use a single Clairsentience power either way by instead taking the Limitation *Precognition And Retrocognition Only* for -½.

HOW PRECOGNITION AND RETROCOGNITION WORK

Precognition and Retrocognition can work in either of two ways. Depending on how the GM defines Clairsentience as working in his campaign, one method may apply in the game exclusively, or either method may be available to characters. In the latter case, typically a character must choose which way his Precognition or Retrocognition works when he buys the power and cannot change it thereafter. However, the GM can let characters switch between methods at will, either by default or if they buy a +½ Advantage, *Variable Physical Scanning,* for the power.

SCANNING A LOCATION

The first way is to scan a *location's* past or future. Using this method, a character can see who (or what!) enters and leaves a given spot, but cannot establish a perception point beyond the normal range for his Clairsentience (nor can he move his perception point unless he's bought

the *Mobile Perception Point* Adder). If something moves outside the radius of his perception, the character has to move himself, then establish another perception point at a location where he can perceive the person or object he wants to "follow." In short, using Retrocognition to follow a person in a fast car is almost always impossible.

FOLLOWING A PERSON OR OBJECT

Alternatively, a character can follow the timeline of *a specific object or person.* Theoretically, a character could watch an alien visitor's timeline back to his birth on another planet! But this assumes, of course, that the Clairsentience has sufficient range, and/or that the perception point is both (a) Mobile, and (b) fast enough to follow the object or person. The GM may waive these requirements in the interest of dramatic sense. In that case, how far away the subject might have been (or will be) from his present location doesn't matter, as long as he is within range of the character's Clairsentience when the character uses the power. Even if the GM allows this, the character cannot perceive into other dimensions, including when the subject uses time travel powers, unless he's bought the *Dimensional* Sense Modifier for his Clairsentience. Furthermore, the character cannot switch targets in the past or future: he cannot, say, follow one person's timeline back to a meeting with another person in Marrakech then switch to the other person and see where that person went after the meeting. However, the GM can allow this if the character buys a +½ Advantage for his Precognition or Retrocognition, *Transferable Subject.*

SCANNING THE TIMELINE

Just as normal Clairsentience can't scan a broad zone of space instantly, Precognition and Retrocognition can't scan a long timeline instantly. A character using them views events in "real time" — for every 1 Segment of time spent viewing, 1 Segment's worth of viewed actions occur.

Two methods for scanning over time more quickly than 1 Segment per Segment are available to characters. Depending on how the GM defines Clairsentience as working in his campaign, one method may apply in the game exclusively, or either (or neither) method may be available to characters. In the latter case, typically a character must choose which way his Precognition or Retrocognition works when he buys the power and cannot change it thereafter. However, the GM can let characters switch between methods at will, either by default or if they buy a +¼ Advantage, *Variable Timeline Scanning,* for the power.

Whatever system a character uses, remember that Precognition and Retrocognition only give sensory impressions, which the character — and player — must interpret for himself. Gamemasters should try to merely describe what the character sees (or hears, smells, and so forth) without explaining it in any way.

SPED-UP SCANNING

First, a character can scan through long periods of time at a faster than the default one Segment per Segment rate. A second-by-second trace of a subject's timeline can be sped up, like a VCR on fast forward or reverse, but details get lost. Quickly scanning whole decades of a subject's timeline just isn't practical.

Locating information by looking through time takes a PER Roll, and fast scans impose negative modifiers. Gamemasters can use the Time Chart for modifiers. Scanning the past or future in "real time" speed, one Segment per Segment, imposes no modifier. A faster scan, one Phase per Segment, imposes a -2 modifier on the PER Roll; 1 Turn per segment gives a -4 modifier; 1 Minute per segment gives a -6 modifier; and so on. Long-lasting, fairly static events give opposing bonuses: +2 for an event lasting a full Phase, +4 for a Turn, and so forth. Using this as a guideline, GMs can create reasonable modifiers for fast scans. Characters may well decide to just scan short sections of a timeline and hope they get lucky.

HIGHLIGHTS SCANNING

Second, a character can use a "selected highlights" version of scanning to search for only the most important events in a person's or object's existence. It's not as precise and controllable as deciding to scan, say, everything that happened between four and three weeks ago, but when it works it saves the character a lot of time. In this system, each use of Precognition or Retrocognition picks up one important event from the subject's timeline. For objects, significant events include its creation, its use in a powerful magic spell or a murder, its destruction, or getting a new owner. For people, any event charged with strong emotion has importance: birth, death, family tragedy, love's first kiss, sheer terror, and so on.

The chief problem with this method is getting the right scene. The less important an event was to the subject, the harder finding the event will be. Suppose a character tries to solve a murder with Retrocognition, using objects at the scene of the crime as subjects. The murder weapon is perfect: it was intimately involved in the crime and very close to the killer. It would probably allow an unmodified PER Roll to spot the murderer's face. A vase shattered in the course of the murder wouldn't be as good: it suffered a significant event (breaking), but it wasn't closely involved in the crime itself. Seeing the details of the crime from the vase's point of view would suffer a severe penalty, if it was possible at all. (See also *Psychometry,* immediately below.)

PSYCHOMETRY

Some characters can read the mental or emotional traces, signatures, or residues that cling to objects or places. This ability is known as *psychometry.* Sometimes psychometric readings are only feelings or impressions; at other times they're full-blown visions of some past event.

In *HERO System* terms, you build psychometry by buying Retrocognition with the Limitation *Psychometry* (-½). This is basically just the *Focus* Limitation slightly redefined; it means the character can only view the past through objects, and can only see the past associated with (or sometimes near) those objects. (At the GM's option, characters can also use Telepathy to simulate psychometry, but in a much more limited way. For example, using Psychometry Retrocognition on a bloody dagger used to kill someone would give the mentalist a vision of a knifing murder, whereas Telepathy would only detect the traces of the extreme hatred and fear associated with the act. In other words, Psychometry Retrocognition provides both a more extensive and a clearer psychometric "picture" than Telepathy.)

Not all objects have the same "psychometric value." For example, a mirror broken during a murder may hold traces some of the fear or hatred associated with the killing, but it's just "fear" or "hatred" — what caused that fear or hatred won't usually be apparent, since the object was only indirectly involved in the act in question. On the other hand, the murder weapon contains strong traces of the emotions involved, and will probably even grant the character a vision of what happened during the murder — as the instrumentality of the killing, the weapon is so central to the event and its emotions that it carries traces of everything that happened.

In some cases Psychometry Retrocognition powers allow a character to gain information about a person by examining an object that's important to him or which he's handled or used frequently (for example, a favorite piece of jewelry, a car, a favored weapon). Usually this is limited to a general emotional/spiritual description of that person (he's evil, he's generally happy, he's mentally powerful) or the circumstances in which he tends to use or handle the object.

ONLY THROUGH DREAMS

Some characters buy Precognition or Retrocognition with the *Only Through Dreams* (-1) Limitation. This means the character has to sleep for at least one hour to gain a glimpse of the future (or the past). However, the information imparted to him may be unclear, muddled, or highly symbolic, as dreams themselves so often are. At the GM's option, the longer the character sleeps (up to a "full night's sleep" of eight hours), the clearer his foresight becomes... though it's never totally obvious.

SENSE-AFFECTING POWERS

For purposes of the Sense-Affecting Powers, Precognitive Clairsentience and Retrocognitive Clairsentience should be considered separate from each other and from normal Clairsentience. Thus, a Flash versus Clairsentience affects a character's ordinary Clairsentience (Sight Group), but not his Precognition or Retrocognition; a Flash versus his Precognition doesn't affect his Clairvsentience (Sight Group) or Retrocognition. If a character has two or more Clairsentience-based abilities, it's up to the GM to decide whether they're affected together or separately by Powers like Darkness and Flash.

Other Aspects Of Clairsentience

CLAIRMENTALISM

Unless the GM objects, characters can buy Clairsentience for Mental Sense Group senses, such as Mental Awareness or Detect Mind. Since Mind Scan already has a "Clairsentience-like" range, it doesn't need a "Clair" effect.

TARGETING MENTAL POWERS VIA CLAIRSENTIENCE

The default rule is that a character can't establish LOS with Clairsentience, even with Mental Powers. Applying the *Indirect* Advantage to a Mental Power doesn't change that — unless, of course, the GM so permits. In that case the Indirect should be the +½ "change the Source Point from use to use" version (possibly at an even higher value created specifically for this purpose).

SEEING THROUGH THE EYES OF OTHERS

The *Only Through The Senses Of Others* Limitation lets a character define a form of Clairsentience that only works via other beings' Senses. Typically the "carrier" of the Clairsentience (the person whose Senses the mentalist perceives through) doesn't know he's being used for this purpose. However, a GM might give some "targets" (say, those with Mental Awareness, if the special effect of the Clairsentience is "psionics") a PER Roll to detect that something unusual's going on, or that someone's hitching a ride in their sensory nerves. If so, Invisible Power Effects at the +¼ level suffices to hide the power from the "target" altogether.

If the "carrier" gets hurt, the character perceiving through him doesn't take damage. However, he might be able to apply some version of the *Feedback* Limitation to his Clairsentience, in which case he would take any damage his "puppet" takes.

Clairsentience with the *Only Through The Senses Of Others* Limitation allows a character to use Senses he does not himself possess. When a character buys Clairsentience, he specifies which Sense Groups it covers, and it doesn't necessarily have to correspond to the Sense Groups

he has naturally. If the being through whom he's perceiving has Senses in the Sense Groups covered by his Clairsentience, he can use them even if he doesn't have the same Senses.

If a character using Clairsentience Only Through The Senses Of Others can't perceive a being whose Senses he wants to use, using whatever Senses or Sensory Powers he has, then generally he can't use the Power. (A character could build an Enhanced Sense specifically for the purposes of perceiving potential target minds.)

Typically a character cannot use Mind Scan to locate a target sufficiently to allow Clairsentience through that target's Senses. However, if a character successfully uses Mind Scan on a target, he gains some knowledge of that target's location (the better his Effect Roll, the more precise his knowledge). A GM could rule that that's enough for a character to "target" his Clairsentience through the senses of the person being Scanned, or could allow an Attack Roll (modified or not).

If the person or being the character's Clairsentience perceives through moves out of the range of the Clairsentience, the power stops working unless the GM rules otherwise.

CLINGING

Clinging Usable As Attack isn't the same thing as an Entangle. First, it doesn't prevent the victim from moving; it simply requires him to succeed with a STR Versus STR Roll to overcome the STR of the Clinging with his own STR to move if the movement requires him to touch a surface (if he's not, as with Flight or Teleportation, then no roll is necessary). Alternately, he could simply break the surface he's attached to and carry a piece of it with him as he moves. He'd also have to make a roll to stand up if he's knocked to the ground, to let go of a held object, or the like. His DCV isn't affected. If he takes Knockback, standard rules for how Clinging affects that apply; if someone wants to use a Shove or the like on him, he uses the Clinging's STR or his own STR, whichever is higher, to resist.

Generally a character's only going to have to make one STR Roll to resist Clinging for each discrete effect, as judged by the GM. For example, in one Phase he might have to make one roll to walk, one to let go of an object, and one to stand up after being knocked down. All these rolls are Actions that take no time, so there's no issue about having to rely on Casual STR.

Whether this is a UAA power that has to be "controlled" by the attacker, like Flight, is up to the GM, but generally it's more akin to Desolidification UAA and doesn't require control.

Clinging UAA doesn't cause other persons or objects to get "stuck" to the target if they touch him.

DAMAGE NEGATION

In the standard *HERO System* rules, Damage Negation only applies against attacks that cause damage to the target, such as Normal Damage, Killing Damage, AVADs, and Drains of STUN or BODY. However, at the GM's option, characters can apply Damage Negation to other types of attacks as well. Typically this is most appropriate when the Damage Negation has the *Only Works Against [Limited Type Of Damage]* Limitation so that it only affects attacks of a specific special effect.

You can use the Damage Class rules (6E2 96) to determine how many "Damage" Classes other types of attacks have. Assuming the attack has no Advantages, here's how it usually works:

Drain: Each -1 DC is -½d6 of effect.

Entangle: Each -2 DCs is -1d6 of BODY and -1 PD/-1 ED. If the GM wants to get more detailed, he can remove -1d6 of BODY alternating with -1 PD/-1 ED for each -1 DC.

Flash: Each -1 DC is -1d6 of effect (regardless of whether the Flash affects a Targeting or Nontargeting Sense Group).

Transform: Each -1 DC is -1d6 from a Cosmetic or Minor Transform or -½d6 from a Major Transform; for Severe Transforms use the "Killing Damage" column on the Damage Classes Table.

The GM can also allow characters to buy Damage Negation solely to apply to Mental attacks. Ordinarily Damage Negation affects Mental Blasts but no other Mental Powers. "Mental Damage Negation" affects all offensive Mental Powers, but no other abilities. (For these purposes the GM can consider powers that simulate Mental attacks [see 6E1 326] as "Mental Powers," if desired.) Each -1 DC equals -½d6 of Mental Blast or -1d6 from a continuing-effect Mental Power.

DAMAGE REDUCTION

Damage Reduction is a fun Power that's useful for building many different abilities and characters. However, since it works a little differently from other Defense Powers, there are several factors the GM should consider before allowing it into play, particularly as a defense for PCs.

First, because it removes a *percentage* of the damage taken after defenses, rather than a fixed subtractive amount like other Defense Powers, Damage Reduction becomes more effective (in absolute terms) the more powerful the attack. For example, if an attack does 20 points of damage after defenses, then 50% Damage Reduction removes 10 points of damage... but if the attack does 30 points of damage, 50% Damage Reduction removes 15 points. This tends to make Damage Reduction a more attractive purchase for higher-powered games (the moreso because its flat cost makes it more affordable when characters have lots of points to spend; see 6E2 284 for further discussion).

Second, because it always lets *some* damage through, Damage Reduction isn't as effective as raw PD/ED against a large number of low-powered attacks as it is against one (or a few) large attacks. For example, 75% Energy Damage Reduction (cost: 60 points) lets 25% of an attack's damage apply to a character, whereas having a 62 ED (cost: 60 points) makes it virtually impossible to harm that character with an energy attack. (Of course, Advantages like *Armor Piercing* and *Penetrating* can affect the situation, which is why the *HERO System* has multiple defense options for characters to choose from.) This makes it ideal for creating master villains, giant monsters, and the like — foes the GM wants the PCs to slowly whittle down to defeat, but not to take out of the fight with just one or two punches (so to speak). On the other hand, it may be less useful for PCs who tend to face large numbers of lesser-powered foes (such as a martial artist who often fights hordes of ninja singlehandedly). On the other other hand, the very fact that Damage Reduction *does* let some damage through may make it acceptable to the GM in situations where he wouldn't let a character spend the same amount of Character Points on raw PD/ED.

For nearly all campaigns the cost of Damage Reduction works well. But in some games the GM may want to adjust the cost in light of the factors discussed above. This may be particularly appropriate in campaigns where the GM exercises rigid control over how much damage characters can do, which makes it easy to determine the relative worth of Damage Reduction versus straightforward points of PD/ED.

EXPANDED DAMAGE REDUCTION TABLE

Damage Reduction	Normal Cost	Resistant Cost	% Of Damage Taken After Defenses
25% Damage Reduction	10 points	15 points	75% (three-fourths)
50% Damage Reduction	20 points	30 points	50% (one-half)
75% Damage Reduction	40 points	60 points	25% (one-fourth)
100% Damage Reduction	80 points	120 points	0%

EXPANDED DAMAGE REDUCTION

In some campaigns, the GM may want to expand the options for Damage Reduction. The accompanying Expanded Damage Reduction Table lists the new levels and their cost in Character Points.

As you can see, the list includes 100% Damage Reduction, which could obviously become *incredibly* unbalancing in any campaign. To prevent this, the GM should at the very least require that a character who buys it define it as working against only a single special effect (such as only against Fire/Heat or only against Electricity) for no Limitation value and/or that the character specify a very common, obvious way for attackers to "bypass" the Damage Reduction so that it doesn't reduce the damage of an attack at all.

Another possibility that allows for even greater precision is to rework Damage Reduction so that characters buy it in 10% increments, from 10% Damage Reduction all the way up to some predefined maximum (such as 80% or 100%). Each 10% would cost 10 Character Points for Normal Damage Reduction, or 15 Character Points for Resistant.

AVOIDING DAMAGE REDUCTION

Under the standard *HERO System* rules, Damage Reduction is something of an absolute — if it applies to an attack, there's no way to prevent a character from being able to use it to diminish the effect of an attack. If this strikes the GM as unfair or inconsistent, he can allow characters to buy a +¼ Advantage, *Irreducible,* for their attacks. An Irreducible attack isn't affected by Damage Reduction at all; after a character subtracts his defenses from the damage, the character takes the full remaining amount of damage.

DEFLECTION

Characters ordinarily cannot use Deflection on Mental Powers, since Deflection derives from the rules for Blocking Ranged attacks, and those rules specifically prohibit the Blocking of Mental attacks (see 6E2 59). However, in some campaigns, particularly those that feature a lot of Mental powers and attacks, the GM could permit characters to buy *Mental Deflection.* Mental Deflection costs the same as ordinary Deflection, but only works against Mental Powers and attacks. It uses OMCV versus OMCV, rather than OCV versus OCV as usual for Block; standard modifiers to OCV (such as the Range Modifier) do not apply unless they normally apply to Mental abilities. However, the character must have a way to perceive Mental Powers (such as Mental Awareness), or at best he'll have a slim chance to Deflect a Mental attack based on guesswork. Other rules for Deflection apply normally, unless the GM changes them based on the way Mental powers work in his campaign.

Hardened and Impenetrable have no application with Deflection. Neither AP nor Penetrating has any effect on a character's ability to Deflect a Ranged attack.

ONLY WORKS AGAINST [LIMITED TYPE OF ATTACK]

Characters often apply the *Only Works Against [Limited Type Of Attack]* Limitation (6E1 148) to Deflection even though it's not a Defense Power. For example, a character with Sonic powers might be able to Deflect attacks involving sound, but not other types of attacks. Some common forms of this Limitation for Deflection include:

- Only Works Against Thrown Objects/Weapons (-¾)
- Only Works Against Non-Gunpowder Projectiles (arrows, sling stones, thrown objects/weapons, and the like; -½)
- Only Works Against Physical Projectiles (e.*g.,* bullets, arrows, thrown weapons, or shrapnel, but not energy beams; -¼)
- Only Works Against Bullets (but no other type of Ranged attack; -½) (you can change "Bullets" to any other common specific form of Ranged attack for the same value, or more/less common forms for a lesser/greater Limitation value)
- Only Works Against Energy Beams (but no physical projectiles; -½)

As usual, these values are for the "typical" campaign; the GM has the final say on the value based on how common a type of attack is. For example, in some Fantasy campaigns arrows may be common enough to only merit a -¼ Limitation.

DENSITY INCREASE

Some characters or campaigns may need more information about Density Increase. The two accompanying tables increase the options available to characters who want to increase their density at will.

First, the Expanded Density Increase Table carries the standard table out to much higher levels. Beginning at about 124 Character Points' worth of DI, "realistically" a character will begin to exert a noticeable gravitational attraction on people near him.

Second, the Detailed Density Increase Table provides greater "granularity" for Density Increase by allowing characters to buy it in 2-point increments. For each +2 Character Points between the standard DI cost breakpoints, the character gets +2 STR, -1m KB, and the PD bonus of the next highest level of DI (ED remains the same as the next lowest level).

DETAILED DENSITY INCREASE TABLE

Points	Mass (KG)	STR	KB	PD	ED
0	100	+0	-0m	+0	+0
2	150	+2	-1m	+1	+0
4	200	+5	-2m	+1	+1
6	300	+7	-3m	+2	+1
8	400	+10	-4m	+2	+2
10	600	+12	-5m	+3	+2
12	800	+15	-6m	+3	+3
14	1,200	+17	-7m	+4	+3
16	1,600	+20	-8m	+4	+4
18	2,400	+22	-9m	+5	+4
20	3,200	+25	-10m	+5	+5
22	4,800	+27	-11m	+6	+5
24	6,400	+30	-12m	+6	+6
26	9,600	+32	-13m	+7	+6
28	12,500	+35	-14m	+7	+7
30	19,000	+37	-15m	+8	+7
32	25,000	+40	-16m	+8	+8
34	37,500	+42	-17m	+9	+8
36	50,000	+45	-18m	+9	+9
38	75,000	+47	-19m	+10	+9
40	100,000	+50	-20m	+10	+10
42	150,000	+52	-21m	+11	+10
44	200,000	+55	-22m	+11	+11
46	300,000	+57	-23m	+12	+11
48	400,000	+60	-24m	+12	+12
50	600,000	+62	-25m	+13	+12
52	800,000	+65	-26m	+13	+13
54	1,200,000	+67	-27m	+14	+13
56	1,600,000	+70	-28m	+14	+14
58	2,400,000	+72	-29m	+15	+14
60	3,200,000	+75	-30m	+15	+15
62	4,800,000	+77	-31m	+16	+15
...and so on					

EXPANDED DENSITY INCREASE TABLE

Points	Mass (KG)	STR	KB	PD	ED
0	100	+0	-0m	+0	+0
4	101-200	+5	-2m	+1	+1
8	201-400	+10	-4m	+2	+2
12	401-800	+15	-6m	+3	+3
16	801-1,600	+20	-8m	+4	+4
20	1,601-3,200	+25	-10m	+5	+5
24	3,201-6,400	+30	-12m	+6	+6
28	6,401-12,500	+35	-14m	+7	+7
32	12,501-25,000	+40	-16m	+8	+8
36	25,0001-50,000	+45	-18m	+9	+9
40	50,0001-100,000	+50	-20m	+10	+10
44	100,001-200,000	+55	-22m	+11	+11
48	200,001-400,000	+60	-24m	+12	+12
52	400,001-800,000	+65	-26m	+13	+13
56	800,001-1.6 million (1 kton)	+70	-28m	+14	+14
60	1.7-3.2 million	+75	-30m	+15	+15
64	3.3-6.4 million	+80	-32m	+16	+16
68	6.5-12.5 million	+85	-34m	+17	+17
72	12.6-25 million	+90	-36m	+18	+18
76	26-50 million	+95	-38m	+19	+19
80	51-100 million	+100	-40m	+20	+20
84	101-200 million	+105	-42m	+21	+21
88	201-400 million	+110	-44m	+22	+22
92	401-800 million	+115	-46m	+23	+23
96	801 million-1.6 mtons	+120	-48m	+24	+24
100	1.7-3.2 mtons	+125	-50m	+25	+25
104	3.3-6.4 mtons	+130	-52m	+26	+26
108	6.5-12.5 mtons	+135	-54m	+27	+27
112	12.6-25 mtons	+140	-56m	+28	+28
116	26-50 mtons	+145	-58m	+29	+29
120	51-100 mtons	+150	-60m	+30	+30
124	101-200 mtons	+155	-62m	+31	+31
128	201-400 mtons	+160	-64m	+32	+32
132	401-800 mtons	+165	-66m	+33	+33
136	801 mtons-1.6 gtons	+170	-68m	+34	+34
140	1.7-3.2 gtons	+175	-70m	+35	+35
144	3.3-6.4 gtons	+180	-72m	+36	+36
148	6.5-12.5 gtons	+185	-74m	+37	+37
152	12.6-25 gtons	+190	-76m	+38	+38
156	26-50 gtons	+195	-78m	+39	+39
160	51-100 gtons	+200	-80m	+40	+40
164	101-200 gtons	+205	-82m	+41	+41
168	201-400 gtons	+210	-84m	+42	+42
172	401-800 gtons	+215	-86m	+43	+43
176	801 gtons-1.6 ttons	+220	-88m	+44	+44
180	1.7-3.2 ttons	+225	-90m	+45	+45
184	3.3-6.4 ttons	+230	-92m	+46	+46
188	6.5-12.5 ttons	+235	-94m	+47	+47
192	12.6-25 ttons	+240	-96m	+48	+48
196	26-50 ttons	+245	-98m	+49	+49
200	51-100 ttons	+250	-100m	+50	+50
204	101-200 ttons	+255	-102m	+51	+51
208	201-400 ttons	+260	-104m	+52	+52
212	401-800 ttons	+265	-106m	+53	+53
216	801 ttons-1.6 ptons	+270	-108m	+54	+54
220	1.7-3.2 ptons	+275	-110m	+55	+55

...and so on

Every 4 points of Density Increase provides:

- x2 mass
- +5 STR
- -2m Knockback (functions just like Knockback Resistance)
- +1 PD (Nonresistant)
- +1 ED (Nonresistant)

kton: kiloton (1,000 metric tons)
mton: megaton (1 million metric tons)
gton: gigaton (1 billion metric tons)
tton: teraton (1 trillion metric tons)
pton: petaton (1 quadrillion metric tons)

DESOLIDIFICATION

Characters often buy the *Affects Physical World* (+2) Advantage for their STR so they can affect solid objects and characters in various ways. Affects Physical World on STR allows a character to use HTH Combat Maneuvers as described on 6E1 192, and to Throw simple objects like rocks. It does *not* allow him to wield any sort of weapon, either HTH or Ranged, unless he also buys Affects Physical World for the weapon. Unless the GM permits it, a character cannot buy Affects Physical World on 1 STR (or some other small amount of STR) just so he can carry solid objects; if he's going to buy Affects Physical World for his STR, he should buy it for all of his STR.

Even if a character defines a broad or very common group of attacks as affecting him while Desolidified (such as "all Energy attacks" or "all Magic"), he is not entitled to a Limitation on his Desolidification.

Ordinarily a character can grant a Usable On Others power to another character and then become Desolidified without disrupting the grant — once granted, a UOO power's typically under the recipient's control. However, if the Advantage is built with the option that allows the grantor to control it (as with any Usable As Attack power), then the power immediately stops affecting (or working for) the recipient if the grantor becomes Desolidified after granting it. And of course, to grant a UOO power to a solid character while Desolidified, the UOO power must have the *Affects Physical World* (+2) Advantage.

ADVANTAGES

Selective Desolidification (+1½): Ordinarily, a character is either entirely Desolidified, or entirely solid — he can't be partly intangible and partly tangible. A character with this Advantage, which requires the GM's permission, can make himself only partly Desolidified, or while Desolidified can selectively solidify part of his body (typically his hands). Selectively solid parts of the body can affect the physical world normally, and in turn be affected by it normally (which may involve use of the Hit Location table to target specific areas of the body). Since a character may not activate and deactivate a Power in the same Phase without GM's permission, a character cannot partially solidify, perform an Action, and then fully Desolidify in the same Phase.

Alternate Desolidification

For some *HERO System* gamers, the "all or nothing" nature of Desolidification runs contrary to the normal way Powers and other character creation elements work. Most Powers are graduated — the more Character Points spent on them, the better or more effective they become. It's possible to re-create Desolidification so that it works this way — the character becomes less dense and less tangible the more Character Points he spends, until at 40 Character Points he becomes completely intangible, just like standard Desolidification.

Alternate Desolidification costs 5 Character Points per level. A character who's spent 40 points on alternate Desolidification can increase the number of BODY he can move through for a cost of +3 Character Points for every +1 BODY. Characters who've spent less than 40 points on lesser density cannot do this.

Each level of alternate Desolidification increases the BODY of objects a character can move through in a single Phase as a Full Phase Action. The character can use up to his full meters of movement while doing this; in effect, using Desolidification "combines" with a Full Move, or converts a Half Move into a Full Move. While doing this the character cannot attack in any way, even with a Move By/Through, unless the GM specifically permits him to.

At the GM's option, a character can move through denser objects at a slower pace. With this option, for each Full Phase Action spent to move through objects, the character moves through X BODY of objects, thus requiring multiple Full Phase Actions to move through objects with greater than X BODY. For example, if a character has spent 20 points on alternate Desolidification (meaning he can move through 4 BODY objects as a Full Phase Action), he could move through an 8 BODY wall by taking two Full Phase Actions. (In either case, these rules assume the object is small/thin enough that the character's Full Move would be enough to move him through it; if it's larger/thicker than that, he'll have to spend multiple Full Phase Actions moving through it.) Since alternate Desolidification provides no Life Support, a character could suffocate while trying to move through too large an object.

For 5-35 Character Points' worth of lesser density, a character becomes harder to hurt (since he's not fully tangible) and easier to Knock Back (this only increases the Knockback distance, not the damage done by Knockback). The extra points of PD and ED do not apply against attacks with the *Affects Desolidified* Advantage. A character who's spent 40 points (or more) on lesser density can, by using 40 or more points' worth of the power, become completely intangible, at which point the rules for Desolidification apply. While fully intangible, he doesn't gain the benefit of the extra PD or ED from lower levels, or take extra Knockback from attacks — at that point, most attacks can't affect him at all.

A character with 40 or more points of alternate Desolidification can choose to use less than full power so that he gains some extra defense for being only partially tangible. However, he cannot use any "extra BODY movable through" he's purchased — he's limited to the amount of BODY indicated on the table. The amount of BODY movable through can only be increased for true intangibility.

ALTERNATE DESOLIDIFICATION TABLE

Points	Mass	KB	PD	ED	BODY Movable Through
5	51-99 kg	+2m	+1	+1	1 BODY
10	26-50 kg	+4m	+2	+2	2 BODY
15	12.6-25 kg	+6m	+3	+3	3 BODY
20	6.5-12.5 kg	+8m	+4	+4	4 BODY
25	3.3-6.4 kg	+10m	+5	+5	5 BODY
30	1.7-3.2 kg	+12m	+6	+6	6 BODY
35	0.8-1.6 kg	+14m	+7	+7	7 BODY
40	Intangibility*	—	—	—	8 BODY*
...and so forth					

***:** At this point, the character becomes completely intangible, and the rules for Desolidification apply (*i.e.,* he cannot be affected by physical attacks, cannot affect the physical world, and so forth), except as noted otherwise in the text. He cannot move through objects of 9 BODY or higher, despite the fact that he's fully intangible, unless the GM uses the optional rules for that. Characters who buy 40 or more Character Points' worth of alternate Desolidification can increase the BODY of objects they can move through per Full Phase Action for a cost of +1 BODY for every +3 Character Points.

Unifying Density Increase And Desolidification: Alter Density

If the GM uses the "alternate Desolidification" power described above, it becomes possible to "unify" Density Increase and Desolidification into a single *Alter Density* Power. Alter Density Power is a Body-Affecting Power. It's Constant, Self Only, and costs END. The cost for each "level" of mass alteration is indicated on the accompanying table. The standard rules for Density Increase apply unless otherwise noted, as do the standard rules for Desolidification when the character reaches 40 points' worth of reduced mass.

A character who buys Alter Density must decide whether he can become heavier (Density Increase) or less dense ("Density Decrease") when he buys the Power, and can't change this thereafter. For a +1 Advantage, *True Density Alteration,* he can become heavier or less dense as he chooses (though he can't become both heavier and less dense at the same time, of course).

FURTHER IMPLICATIONS

The *Alter Density* Power isn't perfectly consistent. While there are some similarities between greater-than-normal mass and less-than-normal mass, there are also significant differences: becoming more dense increases the character's STR (though becoming less dense doesn't weaken him); and becoming less dense provides a restricted form of intangibility (until true intangibility is reached at 40 points' worth of Alter Density) that isn't paralleled by any aspect of "Density Increase." You might want to consider making the "Density Decrease" aspect of the Power reduce a character's STR by 5 points per level, but that may make it far too unattractive a Power for that purpose, and certainly wouldn't be consistent with the standard rules for Desolidification.

ALTER DENSITY TABLE

Points	Mass	STR	KB	PD	ED	BODY Movable Through
60	1.61-3.2mil kg	+75	-30m	+15	+15	—
56	800,001-1.6mil kg	+70	-28m	+14	+14	—
52	400,001-800,000 kg	+65	-26m	+13	+13	—
48	200,001-400,000 kg	+60	-24m	+12	+12	—
44	100,001-200,000 kg	+55	-22m	+11	+11	—
40	50,001-100,000 kg	+50	-20m	+10	+10	—
36	25,001-50,000 kg	+45	-18m	+9	+9	—
32	12,501-25,000 kg	+40	-16m	+8	+8	—
28	6,401-12,500 kg	+35	-14m	+7	+7	—
24	3,201-6,400 kg	+30	-12m	+6	+6	—
20	1,601-3,200 kg	+25	-10m	+5	+5	—
16	801-1,600 kg	+20	-8m	+4	+4	—
12	401-800 kg	+15	-6m	+3	+3	—
8	201-400 kg	+10	-4m	+2	+2	—
4	101-200 kg	+5	-2m	+1	+1	—
0	100 kg	+0	-0	+0	+0	—
5	51-99 kg	—	+2m	+1	+1	1 BODY
10	26-50 kg	—	+4m	+2	+2	2 BODY
15	12.6-25 kg	—	+6m	+3	+3	3 BODY
20	6.5-12.5 kg	—	+8m	+4	+4	4 BODY
25	3.3-6.4 kg	—	+10m	+5	+5	5 BODY
30	1.7-3.2 kg	—	+12m	+6	+6	6 BODY
35	0.8-1.6 kg	—	+14m	+7	+7	7 BODY
40	Intangibility*	—	—	—	—	8 BODY*
...and so forth, in either direction						

***:** See the alternate Desolidification table for further information.

Projection

Projection (a +0 Advantage) is a variant form of Desolidification in which a character can project some part of his self outside of his body. Examples of Projection include a mystic who can release his "astral self" from his physical form, a psychic who can detach his "mental power" from his body, or a character who has the power to free his soul from its prison of flesh and bone.

Projection Desolidification is typically bought with Reduced Endurance (0 END; +½), particularly if a character intends for his Projected Self to remain outside of his body for long periods of time. It's also often bought Persistent (+¼) — otherwise, if the Projected Self is Knocked Out it instantly returns to the character's body.

Just like with normal Desolidification, a character using Projection can use any of his standard powers, Skills, and abilities. However, he cannot touch or affect the solid world unless his STR or abilities have the *Affects Physical World* (+2) Advantage. He can interact with other characters using Projection normally. He cannot interact with characters using ordinary forms of Desolidification, nor can they interact with him, any more than if they were solid. A character who wants to be able to affect a Projected Self can buy attacks and other abilities with the Advantage *Affects Projections* (+¼).

A character can buy Powers that he can only use while Projecting by taking the Limitations *Linked* and *Unified Power* for them (and of course, Unified Power for the Projection Desolidification). Powers often bought for Projected Selves include:

- Invisibility to Sight Group (possibly with a Limitation; see *Perceiving A Projected Self,* below)
- Flight (often with MegaScale so the Projected Self can travel at tremendous speed)
- Life Support (usually Total)
- Extra-Dimensional Movement (*e.g.,* to travel to the Astral Plane for Projection defined as "releasing my astral form")
- Enhanced Senses
- Mind Control
- Possession

PERCEIVING A PROJECTED SELF

A Projected Self is as perceivable as any other type of Desolidification unless the character buys Invisibility to Sight Group, in which case he cannot be seen. In addition to the *Linked* and *Unified Power* Limitations described above, the Invisibility may need to take a -¼ Limitation, *Invisibility Does Not Apply To [Specific Defined Sense].* The exact Sense the Projected Self can be perceived by is defined when the character buys the Invisibility, and depends on Projection's special effect. For example, Projection defined as "my astral self can leave my body" would be perceivable by Astral Awareness (the *Dimensional* Sense Modifier for the Sight Group, defined as perceiving astral beings/places).

Whether or not the the Projected Self has Invisibility, if it can be perceived by some unusual Enhanced Sense that's not a part of the Sight Group, the Projection can take a -¼ Limitation. For example, if the special effect of Projection is "I can send my mental self outside my body," then the Projected Self could be perceived with Mental Awareness.

A character using Projection can automatically perceive other characters using Projection, though the GM may ignore this rule if the special effects of the two forms of Projection are significantly different (for example, one's a mystical astral form, while the other is a cyberkinetic's mind Projected into a machine or cyberspace).

THE PHYSICAL BODY

While a character uses Projection — that is, while his Projected Self is outside of his body — his body is incapacitated, helpless, and unable to act or perceive anything. To all but the most intense medical examination, or the use of appropriate Enhanced Senses, it seems to be dead. Projection must take a -½ Limitation, *Physical Body Left Behind,* to reflect this. (If a character wants a form of "Projection" in which his physical body remains able to act, build that as Duplication, with the Duplicate having Desolidification that's built similar to Projection and is Always On.)

Any injuries or harm suffered by the Projected Self are also suffered by his physical body, and vice-versa; to reflect this, Projection must take the Limitation *Feedback* (-1). For this reason, a character with Projection usually prefers to use it only when he's reasonably sure his physical body will remain safe, such as when he's in his home or secret headquarters. Otherwise an enemy could find it and easily kill him.

With some forms of Projection, if the Projected Self doesn't return to the physical body and merge with it within a certain period of time (usually 24 hours), the character dies. (Typically both parts of him die, but at the GM's option the Projected Self might live on as a "ghost" or disembodied spirit of some sort.) This qualifies for a Limitation, *Must Return To Physical Body,* which has a -½ value for the standard timeframe of 24 hours (1 Day). For each step up the Time Chart (6 Hours, 1 Hour, 20 Minutes...), increase the value of the Limitation by ¼ (usually with a final maximum value of -2 for a measly 1 Turn duration outside of the physical body); for each step below (1 Week, 1 Month...) decrease it by ¼ (to a minimum value of -0).

A Projected Self has no special knowledge of his own body (other than knowing when it suffers harm, because the Projected Self suffers the same harm). Unless he can perceive it with the Senses he has when Projected, it could be moved, locked in a vault, or the like and he won't know until he returns to it or can perceive it again. (Assuming he can find it, said the GM fiendishly.) Of course, a character could buy an Enhanced Sense, *Detect State/Location Of Body,* to remain fully aware of his body while Projected... though he might need to buy a lot of Telescopic, or even Dimensional, for it, depending on his travel plans.

PHYSICAL PROJECTION

Some special effects of Projection may involve a physical form. For example, a character could be a symbiote, with a humanoid body that's "run" by a host organism living inside it. In this case, Projection would involve the host organism leaving one body (which then becomes non-functional) to take control of another. To represent this, buy the Desolidification with the Limitations *Does Not Protect Against Damage* (-1) and *Cannot Pass Through Solid Objects* (the only object the Projected Self could pass through would be something it Merged with; -½).

MERGING

At the GM's discretion, a character using Projection can buy the Advantage *Merging* (+0). Merging means the character doesn't leave behind any sort of physical body; his Projection involves "transforming" his entire self (body, mind, and spirit) into the Projected Self and the Projecting it *into* another being or object (hence, "merging"). The Projected Self is then a "part" of the being/object merged with, and moves as it moves. This is most often done for Projection bought Linked to Possession, so that the Projected Self "takes over" the host body while merged with it.

When using Merging Projection, a character typically must Merge with an appropriate being/object within no more than 1 Turn of activating Projection (and usually much sooner, such as in the same Phase). Otherwise the Projection turns off; the character has to activate it again if he wants to keep using it.

To merge with a host body/object, a Projected Self must hit it in HTH Combat. If the target cannot perceive him, he typically gets a Surprise bonus to his OCV, but this depends on the circumstances, whether his target knows about his Projection power, and other factors. A merged Projected Self remains as perceivable as when he was not merged, though the exact special effects of this of course depend on the Projection ability.

Generally there's no "defense" to merging, since a Projected Self merging with a character has no detrimental effect *per se.* If the Projected Self attacks the host body/object after merging with it, then the host body would apply any defenses it had against that attack in the usual manner — being merged with a host body/object does *not* allow the Projected Self to bypass the host body's/object's defenses in any way.

However, there are ways to prevent the merger in the first place, or to eject the merged Projected Self from the host body/object. For example, a character can apply Affects Projections (+¼) to his full PD to make it impossible for a Projected Self to merge with him. (The Projected Self could overcome this by buying Penetrating for his Projection; the host body could buy Affects Projections multiple times to overcome this, and the Projection could have multiple levels of Penetrating to overcome that.)

The merged Projection can be attacked separately from the host body/object, assuming another character has a way to do so (such as a Mental Power or attack that Affects Projections). Typically such attacks have no affect on the host body/object, but the final decision is up to the GM (for example, an Affects Projections Blast would probably hit *both* the host body and the merged Projected Self). Even if the attacker cannot perceive a merged Projected Self separately from the host body/object (which typically requires special Senses; see above), he doesn't suffer the usually penalties for inability to perceive his target with a Targeting Sense.

Damage or injury to the host body/object typically has no effect on the Projected Self. However, the character can take the Limitation *Feedback From Host Body* (-1), in which case he takes all STUN and BODY damage the host body/object takes while he's merged with it. Even if the Projection lacks that Limitation, destroying the host body/object ends the merging (though the Projected Self could merge with another target when it gets the chance).

DISPEL

The rules for affecting the effects/manifestation or the creator/originator of a power with Adjustment Powers (APG 54) also apply to Dispel.

Dispel's effectiveness can depend on whether an Adjustment Powers is affecting the target ability. For a power that's been Adjusted downward (via Drain, for example), the Dispel takes effect if it exceeds the current (Adjusted) Active Point total of the power. However, the character whose power is Dispelled must make note of the total on the Dispel dice and compare it to the Active Point total of his power as the Adjustment Power wears off. As soon as the power regains enough points to where its current Active Point total exceeds the Dispel's effect, the power returns to the character (at its current, Adjusted but partly recovered, level). For a power that's been Adjusted upward (via Aid, for example), the Dispel takes effect if it exceeds the current (Adjusted) Active Point total of the power. If it fails to take effect, it fails altogether; the character doesn't have to keep track of its effects.

Linked can also affect Dispel. To Dispel a Linked power, the attacker must apply the Dispel separately to each component — though of course Dispelling the greater power makes the lesser power useless anyway, so it's sort of a moot point. In the case of other compound powers (such as a Blast composed of various amounts of dice, each with separate Limitations), typically you add the parts together to get an overall Active Point total, just as you would if you were trying to see if the power would fit into a Framework slot, and that's the amount the Dispel has to equal or exceed.

DRAIN

If a character attempts to Drain (or otherwise negatively Adjust) Power Defense, the Power Defense applies first in full, and anything that gets past the Power Defense is then halved when determining how much the Drain reduces it.

SUPPRESS

A character can be Stunned from any loss of STUN, including from a Suppress. If the character using the Suppress chooses not to maintain it by paying END, the lost STUN returns to the victim, but the return of the STUN doesn't automatically un-Stun him. Once Stunned he has to recover from being Stunned using the standard rules for doing so.

If a character buys Suppress in a Power Framework and switches the Framework to another slot, the Suppress immediately stops working — the character can no longer pay END to maintain it since it's not active.

If Suppress is bought with Charges, the Suppress effect lasts for the one Phase the Charge is active, then it ends and the Suppressed points immediately return to the victim. If the Charges are Continuing Charges, the effect lasts until the duration of the Charge expires, then the points immediately return. If the Charges are Continuing Fuel Charges, the character has to keep expending 1 second's worth of fuel per Phase to maintain the Suppress; as soon as he stops doing this, the points immediately return.

See also APG 15 regarding Suppressing BODY.

ENDURANCE RESERVE

If a character has multiple Endurance Reserves, each Reserve must have its own REC; they cannot "share" one REC.

A character doesn't have to take his Endurance Reserve's Recovery if for some reason he doesn't want to.

If a character has an Endurance Reserve and wants some Variable Power Pool powers to use it, but some not, he must apply the +¼ *Power Can Draw END From Character Or END Reserve* Advantage (6E1 206) to the Control Cost of the VPP.

ENHANCED SENSES

Here are some additional and expanded rules about various Enhanced Senses and related issues.

Sense Groups

THE MENTAL SENSE GROUP

The Mental Sense Group includes Mental Awareness, Mind Scan, and any other Enhanced Senses based primarily upon mental powers. To a limited extent, Telepathy (which acts as both "mental hearing" and a "mental voice") and Mind Link (a more limited form of Telepathy) are also a part of this Sense Group for purposes of applying Sense-Affecting Powers.

A Detect or other Sense defined as belonging to the Mental Sense Group is not a Mental Power. An Enhanced Sense (no matter what Sense Group it belongs to) is a Special Power, not a Mental Power. Unless more specific rules note otherwise, Mental Group Sense Senses are subject to the Range Modifier, just like any other Senses.

The GM should be careful not to let Enhanced Senses (particularly Detects) take the place of any Mental Power. For example, a character might want to buy Detect Emotions, Discriminatory, so he could tell what a given person was feeling. This might be appropriate for some campaigns and characters, especially if it's fairly restricted in scope, but in most situations this sort of ability is best simulated with Telepathy (perhaps in Limited form).

BLOCKING MENTAL SENSES

Typically Mental Senses aren't blocked by physical obstacles such as walls — though they're often analogized to Sight, they aren't Sight and don't function the way Sight does. The GM determines what blocks Mental Senses based on the way Mental Powers work in his campaign. (See *Penetrative,* 6E1 213, for more information.) Some possibilities include:

- a Barrier that has even 1 point of Mental Defense
- another mind. Just like a character's eyes can't see through one opaque object to see another object, a Sense like Detect Minds can't perceive "through" one mind to perceive another. Thus, being in a large crowd of people may serve as "cover" or "camouflage" from Mental Senses.
- a strong electromagnetic or energy field
- a layer of metal, or a particular metal (such as aluminium or questionite) (possibly of some mimimum thickness)
- a particularly thick physical barrier (such as 1m thick or more)

Senses

Here are some more rules and information about Senses.

MENTAL AWARENESS

Mental Awareness allows a character to perceive the user and target of Mental Powers, which are normally not perceivable (except to those two characters). Mental Awareness works at Range and is a Sense (*i.e.,* it doesn't require any time to use), but it is not a 360-Degree Sense, Discriminatory, or a Targeting Sense.

Discriminatory Mental Awareness would allow the character to determine (with a successful PER Roll) the specific Mental Power being used, the level of power (*i.e.,* Active Points, plus or minus 10%), and whether the power is being used grossly or subtly. Analyze with Mental Awareness allows the character to know the exact Active Points in the Power and any Advantages bought for it. Targeting Mental Awareness allows a mentalist to establish Line Of Sight for attack purposes on either the user or the target of a Mental Power.

WHAT THE CHARACTER PERCEIVES

What a character perceives with Mental Awareness depends on the nature of the Mental Power being used.

For mental attacks, such as Mental Blast, Mental Illusions, Mind Control, Telepathy, and some ACV/AVAD powers, the character perceives a momentary "connection" of some sort between the attacker and his target(s). Depending on how the GM has defined psionics as working in the game, this could manifest as, for example:

- a "beam of light" or other phenomenon connecting the head of the attacker with the head(s) of his target(s)
- a "halo of light" or other phenomenon surrounding the head of the attacker and the head(s) of his target(s)

However, this assumes no continuing or ongoing "mental contact" between the attacker and his target(s) — just the sort of momentary contact necessary to make the attack, and no more. If the attacker maintains contact for some reason (for example to feed the power END so the Breakout Rolls don't improve, or conducting a "mental conversation" with Telepathy), then whatever phenomenon the character perceives as "connecting" the attacker and his target(s) remains in effect, and perceivable, for as long as the mental contact lasts.

For Mind Scan, other Constant Mental Powers, and Mind Link the effect is the same as a lasting mental contact: as long as the mentalist maintains the power (typically by paying END for it or the like), the phenomenon that "connects" the attacker and his target(s) remains in effect and perceivable.

Note that nothing about the phenomenon indicates the type or strength of Mental Power being used. The phenomenon is the same for all Mental Powers... until the character buys Discriminatory and/or Analyze for his Mental Awareness. At that point the phenomen*on* becomes phenomen*a* — a distinct perceivable effect for each Mental Power. The phenomena have varying "brightness" or intensity to indicate the relative strength of the power (or the amount of it being employed, anyway — a strong Mental Power "looks" weaker than it really is if it's only being used at half strength). For example, Mental Blast might look like a "laser beam" of mental force lancing out from the attacker's mind to the target's, while Mind Control looks like a cloud of vapor that surrounds the attacker's head, part of which flows out to engulf the target's head.

Mental Awareness only allows a character to perceive "the use of" Mental Powers within his LOS. It doesn't allow him to perceive that a person is under the effect of a standard continuing-effect Mental Power — for example, the fact that someone's under the effect of Mental Illusions or Mind Control. In that case the Power's already been "used." But as noted above, if the attacker maintains or continues the mental contact, Mental Awareness can perceive the Power.

Using Mental Awareness to perceive mental communication (such as by Mind Link or Telepathy) doesn't allow a character to "overhear" the communication, "tap into" it, or otherwise find out what's being "said."

Sense Modifiers

ANALYZE

Analyze is a Sense Modifier that can be purchased for any Sense that has full Discriminatory (whether a "free" one or one that's been bought by the character). So a character could "upgrade" the crude Discriminatory that Normal Sight comes with (see 6E1 209) to full Discriminatory, and then buy Analyze for it.

As discussed on 6E1 209, Normal Sight can crudely differentiate people based on appearance (height, facial features, weight, visible distinguish features, and so on). With full Discriminatory, that becomes even more precise — the character could precisely estimate features like height, weight, and other dimensions within +/-25%, and could much more accurately describe the person/object to, say, a police sketch artist. With Analyze, with a PER Roll he can determine the subject's *exact* height, weight, and other dimensions, and describe him with total accuracy (within the limits of his descriptive abilities, naturally).

MICROSCOPIC

As a general rule, if something is too small to be perceived with standard Senses, a character must apply Microscopic to a Sense intended to perceive it even if that Sense is a Detect bought specifically to perceive that thing. In other words, a character can't buy Detect Bacteria and get lots of Microscopic "for free" just because what he can Detect is tiny; he has to buy the appropriate amount of Microscopic. As a vague sort of guideline, think of it this way — if a character could see whatever it is with the unaided eye, Microscopic probably isn't needed. Thus, Detect Nanobots requires Microscopic, but Detect Ants doesn't.

MICROSCOPIC AS TELESCOPIC

The Expanded Shrinking Table (APG 116) makes it possible to restructure the cost of Microscopic. Use the same cost as Telescopic — 1 Character Point for +2 PER with a single Sense, 3 Character Points for +2 PER with a single Sense Group — and buy Microscopic to cancel out the PER Roll modifier for very small objects. Apply whatever PER Roll modifier remains to the character's PER Rolls. For example, if a character bought +42 Microscopic for his Sight Group (63 Character Points), he could see bacteria (or anything larger) with an unmodified PER Roll. If he tried to see a single molecule (-50 to PER Rolls), he'd suffer a -8 to his PER Roll.

RANGE

Much like the rules have a Limited Range (+¼) version of the Ranged (+½) Advantage, a character could create a Limited Range (+3 points for a single Sense) version of the Range (+5 points) Sense Modifier.

TRACKING

A Tracking Sense cannot necessarily be used to follow a Teleporting character from his departure point to his arrival point. When a character Teleports, he "drops off the Perception "radar,"" so to speak. Once he re-appears, a character trying to track him can make another PER Roll to perceive him at his new location. In many cases the GM won't even require a roll, since special effects or the like will make it obvious to everyone where the teleporter is when he "appears." On the other hand, sometimes a character Teleports so far that there's absolutely no hope of tracking him. But Teleportation itself doesn't leave any sort of "trail" (unless the GM establishes that it does as part of the campaign ground rules — in which case he should also define how it's "followed").

In general, a Tracking Sense be used to see where someone came from rather than where they went (just like the *Tracking* Skill can). However, the GM could rule otherwise based on the nature of the power or the circumstances. And naturally, the further back a character Tracks someone, the older the trail gets and the worse the modifiers he suffers to follow it.

TRANSMIT

A character with Eidetic Memory cannot perfectly reproduce, via Transmit, sounds he's heard — perfect memory for something doesn't necessarily translate into the ability to reproduce it exactly. A character with Mimicry can Transmit perfectly-reproduced sounds if he succeeds with a roll.

Transmit doesn't necessarily have to involve a specific target — typically anyone within sensory range of a transmission, and who possesses the right Senses (either innately or via equipment) can perceive a transmission. Focusing a transmission more carefully might require a roll with Systems Operation or some other appropriate Skill, a certain special effect for Transmit, or the like.

Typically a character can Transmit anything he can receive. Thus, if he has High-Range Radio Perception, he could Transmit radio signals, video, audio, and the like. However, Transmit cannot give his voice properties beyond what it normally has, unless the GM rules otherwise. For example it won't let him generate ultrasonic or infrasonic sound, nor to use Ventriloquism if he hasn't paid for that Skill.

ENTANGLE

Here are some expanded and additional rules for Entangle:

Breaking Out Of Entangles

Here are some expanded rules and rules clarifications regarding breaking out of Entangles.

ESCAPING WITH CONTORTIONIST

The basic *HERO System* rules assume a character *cannot* use Contortionist to escape from an Entangle. This represents Entangles like glue bombs, ice blocks, sticky webbing, and magical energy fetters — no matter how a character squirms and contorts his body, he cannot get out of such Entangles by agility alone. His only resort is to try to smash out of them using STR, a Martial Maneuver with the Exert element devoted to "escape," or an appropriate attack.

However, characters could escape other special effects for Entangle — rope, chains, handcuffs, wireguns, and the like — with Contortionist, though it might be difficult. You can represent this with a Limitation, *Escapable With Contortionist.* For a -1 Limitation, a character can escape an Entangle by making a normal Contortionist roll. This requires a Full Phase. This might represent poorly-tied ropes, weak wireguns, or the like.

For a -½ Limitation, a character can escape an Entangle by making a Contortionist roll at a -1 to -3 penalty (the GM determines the appropriate penalty, based on special effects and the circumstances). This might represent normal handcuffs (see the example in the sidebar on 6E1 219), an average-quality wiregun, typical chains, or the like.

For a -¼ Limitation, a character can escape an Entangle by making a Contortionist roll at a -4 to -6 penalty (the GM determines the appropriate penalty, based on special effects and the circumstances). This might represent high-tech handcuffs, a quality wiregun, some limited or poor-quality types of glue bombs or ice blocks, tight and well-made chains, and the like.

In any case, using Contortionist to escape an Entangle normally requires a Full Phase. For ¼ more Limitation, this only requires a Half-Phase Action. For each ¼ less Limitation, the character buying the Entangle can extend the time it normally takes to contort out of it by one step down the Time Chart (1 Turn, 1 Minute, and so forth). However, these are *average* times; the GM may modify them based on special effects, how much the character makes his roll by, the circumstances, common sense, dramatic sense, and other factors.

Characters can also escape some types of Entangles, such as chains, with Lockpicking rather than Contortionist (assuming the character can reach the lock and has an appropriate tool or power to do the job). If so, simply change the Limitation's name to *Escapable With Lockpicking.* If a character can escape an Entangle with both Lockpicking and Contortionist (as with handcuffs), simply include both Skills in the Limitation's name; the Entangle doesn't get an additional Limitation because of this.

TARGETING ENTANGLES

6E1 216 describes how Entangles can be targeted specifically at -3 OCV if a character wants to free a victim from an Entangle without hurting him. Like the character it traps, a typical Entangle has a DCV of 0. Of course, the Range Modifier and other applicable penalties may make it more difficult to hit. The GM can increase an Entangle's natural DCV based on special effects, the situation, common sense, dramatic sense, and similar factors.

At the GM's option, for each +5 Character Point Adder, *Increased DCV,* applied to an Entangle, its DCV increases by 3. Thus, for +5 points, an Entangle has DCV 3; for +15 points, it has DCV 9. The GM may, in his discretion, establish a limit on how much an Entangle's DCV may be increased.

Regardless of an Entangle's DCV, a character trapped by that Entangle always hits it automatically. He never has to make an Attack Roll to hit it, though attempting to damage it does constitute an Attack Action except where the rules note otherwise.

BYPASSING ENTANGLES

Many Entangles buy the *Takes No Damage From Attacks* Advantage so that most attacks do not affect them. A paralysis spell, which prevents a character from moving but doesn't use any sort of physical substance that other characters could damage or break, is a perfect example of an Entangle with that Advantage.

By the same token, there are some types of attacks that should avoid Entangles, even if the Entangle normally takes damage from attacks, because of the nature of the attack. Examples include biokinetic attacks (the ability to affect the victim's biological processes, for instance to make him suffer a heart attack or boil his blood), ripping the victim apart inside via gravity manipulation or psychokinetic power, and freezing the victim from the inside out.

At the GM's option, attacks that should affect a character without harming Entangles affecting him must take a +¼ Advantage, *Bypasses Entangles,* to reflect this. Attacks with the *Bypasses Entangles* Advantage damage the target without causing any damage to any Entangle affecting him.

CASUAL STRENGTH AND RELATED MATTERS

Since using Casual STR is a Zero Phase Action, a character trapped in an Entangle may try it each Phase. If he breaks out, he still has a Full Phase left to act. If he fails, he can still use his Action to try to break free with his full STR, per the standard rules. The same rules apply to the Casual use of other powers and abilities to break out; see 6E1 131-32.

Entangled characters may not, except with the GM's permission, make Multiple Attacks against an Entangle.

A character trapped by an Entangle immediately drops to DCV 0, even if the Entangle is so weak he can easily break out of it with his Casual STR/attack in his next Phase. If characters start to abuse this rule by attacking their enemies with measly 2d6 Entangles just to reduce their DCVs to 0, allow trapped characters to make a Casual STR roll/attack to break out *immediately* when they're Entangled (as with Grab); if the Casual STR roll/attack succeeds, the victim keeps his normal DCV.

See 6E2 124 for rules on Actions remaining to characters who break out of Entangles.

Other Rules

An an Entangle with the *Does Not Prevent The Use Of Accessible Foci* Limitation typically also has no effect on Restrainable powers. For example, handcuffs are a classic example of an Entangle that *Does Not Prevent The Use Of Accessible Foci,* and they certainly wouldn't stop a character with, say, Restrainable wings from flying. On the other hand, a net might stop some types of Restrainable powers, but not most Accessible Foci. The final decision is up to the GM.

ENTANGLES AND LARGE TARGETS

Typically, a character using Entangle attacks a roughly human-sized target. Under the standard *HERO System* rules, an Entangle (whether Area of Effect or not) used against a character who's larger than normal (due to Growth, one of the *Large* Size Templates, the special effects of various powers, or what have you) affects the character in full, according to the standard rules for Entangle. The rules do not restrict Entangles to a certain "size" — if an Entangle affects a target, it affects that target, regardless of the target's size. The odds are that large targets will be strong enough to break out with just Casual STR, but by a strict reading of the rules the target could still be reduced to DCV 0 until it can perform a Zero Phase Action to break out.

If you consider this a problem in your game, here's a rule to end it that uses the *Large* Size Templates on 6E1 443:

- an ordinary Entangle can affect a Large target, Human-sized target, or any target smaller than Human size normally.
- to affect a larger target, the Entangle must be at least as wide as half the Reach (Stretching) bonus listed in the Size Template (e.*g.,* at least 1m wide to affect an Enormous target, at least 15m wide to affect a Gargantuan target). This width can come from the A*rea Of Effect* Advantage, being Spread, or the like. If the Entangle's smaller than that, one of two things can happen:

  1. The target receives a STR bonus equal to the PRE bonus listed in its Size Template to break free from it (*e.g.,* +15 STR for a Huge target)

  2. At the GM's option, based on special effects, the situation, and other considerations, the Entangle may not affect the target at all (alternately, the target immediately gets a Casual STR roll to break free; this is an Action that takes no time).

Making an Entangle larger than the minimum listed size has no effect (*i.e.,* it doesn't make the Entangle harder to break out of).

THE *AFFECTS LARGE TARGETS* ADVANTAGE

Alternately or in addition, the GM can establish an *Affects Large Targets* Advantage that allows an Entangle to affect a large target normally even if the Entangle isn't sufficiently "wide." This would be appropriate for, *e.g.,* a Paralysis Spell that only affects a single target but works equally well against titans and sprites.

For a +¼ Advantage, an Entangle can affect Large and Enormous targets normally. In game terms, it negates up to +10 bonus STR to break out under the system described above; it doesn't prevent the target from using his regular STR, Pushing that STR if appropriate, or the like. For example, an Enormous target hit with an Affects Large Targets (+¼) Entangle doesn't get his normal +10 STR bonus to break out; the Advantage negates that and restricts him to using his just ordinary STR. (Though that's at least STR 40, based on his Size Template's effect on STR.)

For a +½ Advantage, the Entangle can affect Huge and Gigantic targets normally. The Advantage negates up to +20 STR bonus under the system described above.

For a +1 Advantage, the Entangle can affect Gargantuan or larger targets normally. The Advantage negates any STR bonus under the system described above.

REACTIVE ENTANGLE

The *Backlash* Advantage causes a character trapped in an Entangle to also take any damage he inflicts on the Entangle in an attempt to break free from it. At the GM's option, a character can define an Entangle's Backlash as *Reactive.* This means that instead of reflecting damage at the victim, the Advantage causes the Entangle to get stronger — the classic "Don't squirm, you'll just make it tighter" effect. For each 2 DCs of damage done to the Entangle, increase its BODY by 1 (this may in effect "heal" the damage the attack does). The GM can alter the damage-to-extra-BODY ratio, rule that any successful attack automatically does 1 BODY damage regardless of Reactive, or make any other changes he sees fit to maintain game balance.

HARMFUL ENTANGLES

If a character wants to create an Entangle that also harms the target — for example, "Lightning Chains" that restrain while inflicting electrical shock damage — he can do so by Linking the attack to the Entangle. However, a Linked attack still damages the Entangle as well as the Entangled victim; to prevent this from occurring, the Entangle should have the *Takes No Damage From Attacks* Advantage at the +¼ level (immune to Linked attack).

EXTRA LIMBS

In some campaigns, the GM may want to alter the standard Extra Limbs rule — as many Extra Limbs as a character wants for 5 Character Points — so that the more limbs the character has, the more he pays. Instead, they use a different cost structure: 5 Character Points for up to two extra limbs, +2 Character Points for every up to x2 extra limbs thereafter. Thus, an eight-armed monster would have to spend 9 Character Points (5 points for the first two extra limbs, +4 points for the remaining four limbs) for them.

Alternately, some GMs may prefer for Extra Limbs to inherently have an effect on combat, instead of just being utilitarian. In this case, each Extra Limb costs 4 Character Points and provides a +1 OCV bonus with Punch, Disarm, and Grab (this works just like a 3-point Combat Skill Level, but can only add to OCV).

In some settings, it's possible to have species that naturally have more than four limbs. For example, in a Pulp Science Fiction story the Martians or Venusians might have four arms. Since Extra Limbs allows any number of limbs for 5 points, if you have a naturally multi-limbed species and want to add even more, just change the number of limbs without changing the cost of the power (unless manipulability changes, in which case buy Extra Limbs twice). Depending on special effects and the like, some of the limbs may be Inherent and others not; if so, the character must apply Inherent (if it's not on the Extra Limbs already), and then restrict the non-Inherent limbs with a -0 Limitation.

FLASH

Being affected by a Flash versus the Mental Sense Group doesn't reduce a character to DMCV 0. It just prevents the character from perceiving Mental attacks with Mental Awareness, or otherwise using his Mental Group Senses. A character's DMCV doesn't depend on his ability to perceive Mental attacks — otherwise most characters would have DMCV 0 all the time.

LONG-TERM FLASHES

In the "real world," some disabling or harassing weapons, such as tear gas and pepper spray, are defined as Sight Group Flashes, but their effects can last several minutes or more, not the few seconds common to Flashes in the game. Some energy projectors might likewise be able to blind targets for long periods of time. At the GM's option, characters can build long-term Flash attacks by applying the Advantage *Delayed Recovery* (+2) to Flash. For a Flash with this Advantage, each "Normal Damage BODY" rolled on the Flash dice represents *1 Turn* of sensory deprivation, rather than 1 Segment. The GM may adjust the recovery rate based upon curative measures the characters take, for the sake of drama, or for any other appropriate reason — after all, it's not always conducive to enjoyable game play to have PCs and NPCs incapacitated for long periods of time.

GROWTH

The Growth rules describe how tall and wide a character becomes, but they establish no parameters for how thick his torso and frame become. For the most part, there's no need for players or GMs to know that, but if necessary you can assume the character's "thickness" increases proportionately to his height and width.

COLLATERAL SIZE DAMAGE

APG 176 has rules for how heavy characters may damage surfaces they walk on. But extremely large characters — bricks using Growth, giant monsters rampaging through Tokyo, and so on — are even more likely than heavy characters to wreak havoc in their local environment. In a world designed for normal-sized humans, every step a super-tall character takes and every casual swing of his arms has the potential for disaster — "realistically" speaking.

If the GM wants to take this into account, here's a simple rule for doing so. Each Phase, a super-tall character has to make a DEX Roll as an Action that takes no time. (If the character doesn't move his body at all during a Phase, then the GM can waive the roll.) A penalty of -1 per "level" of Growth applies; for characters not using Growth, calculate the corresponding penalty based on their height. If the character makes the roll, he doesn't cause any collateral damage (other than crushing the surface he steps on, perhaps). If he fails the roll, he does his Casual STR damage to some feature of the environment. Typically this means a building, tree, or the like, but the GM has the final say based on the situation.

Intermediate Large Size Templates

The Size Templates on 6E1 443 are fine for most larger-than-normal characters. However, some characters may want to be not quite as tall, strong, and tough as indicated in those templates. On AGP 100-01 are some additional Size Templates for characters roughly half as powerful as each of the Templates on 6E1 443 (each Template also lists the cost for buying that size as Growth). If a character buys one of these, his mass is x1½ the mass from the previous full Template, not x2 as with the full Template.

Expanded Large Size Templates And Growth Table

If being as much as 64 times human size just isn't enough for you, on APG 100-01 are three more Size Templates and a Growth Table for characters up to 1,000 meters (1 km) tall!

INTERMEDIATE LARGE SIZE TEMPLATES

SIZE: SEMI-LARGE (CHARACTER IS UP TO X1½ HUMAN SIZE)
Cost

8 **Greater Strength:** +8 STR
3 **Greater Toughness:** +3 CON
3 **More Impressive:** +3 PRE
2 **Tougher:** +2 PD
2 **Tougher:** +2 ED
2 **Greater Mass:** +2 BODY
2 **Greater Toughness:** +4 STUN
1 **Reach:** Reach +1m (total of 2m)
6 **Long Legs:** Running +6m
3 **Heavy:** Knockback Resistance -3m

Total cost: 32 points.

Complication: Physical Complication: Semi-Large (+1 OCV to hit character, +1 to others' PER Rolls to perceive him) (Infrequently, Slightly Impairing) (10 points)

Cost For Growth: 15 points.

SIZE: SEMI-ENORMOUS
(CHARACTER IS UP TO THREE TIMES HUMAN SIZE)
Cost

23 **Greater Strength:** +23 STR
8 **Greater Toughness:** +8 CON
8 **More Impressive:** +8 PRE
5 **Tougher:** +5 PD
5 **Tougher:** +5 ED
5 **Greater Mass:** +5 BODY
5 **Greater Toughness:** +10 STUN
2 **Reach:** Reach +2m (total of 3m)
18 **Long Legs:** Running +18m
9 **Heavy:** Knockback Resistance -9m

Total cost: 88 points.

Complication: Physical Complication: Semi-Enormous (+3 OCV to hit character, +3 to others' PER Rolls to perceive him) (Frequently, Slightly Impairing) (15 points)

Cost For Growth: 40 points.

SIZE: SEMI-HUGE (CHARACTER IS UP TO SIX TIMES HUMAN SIZE)
Cost

38 **Greater Strength:** +38 STR
13 **Greater Toughness:** +13 CON
13 **More Impressive:** +13 PRE
8 **Tougher:** +8 PD
8 **Tougher:** +8 ED
8 **Greater Mass:** +8 BODY
8 **Greater Toughness:** +16 STUN
5 **Reach:** Reach +5m (total of 6m)
30 **Long Legs:** Running +30m
15 **Heavy:** Knockback Resistance -15m

Total cost: 146 points.

Complication: Physical Complication: Semi-Huge (+5 OCV to hit character, +5 to others' PER Rolls to perceive him) (Frequently, Greatly Impairing) (20 points)

Cost For Growth: 65 points.

SIZE: SEMI-GIGANTIC
(CHARACTER IS UP TO TWELVE TIMES HUMAN SIZE)
Cost

53 **Greater Strength:** +53 STR
18 **Greater Toughness:** +18 CON
18 **More Impressive:** +18 PRE
11 **Tougher:** +11 PD
11 **Tougher:** +11 ED
11 **Greater Mass:** +11 BODY
11 **Greater Toughness:** +22 STUN
11 **Reach:** Reach +11m (total of 12m)
42 **Long Legs:** Running +42m
21 **Heavy:** Knockback Resistance -21m
25 **Gigantic Hands And Feet:** Area Of Effect (1m Radius; +¼) for up to 70 STR, Reduced Endurance (0 END; +½)

Total cost: 232 points.

Complication: Physical Complication: Semi-Gigantic (+6 OCV to hit character, +6 to others' PER Rolls to perceive him) (Frequently, Greatly Impairing) (20 points)

Cost For Growth: 100 points.

SIZE: SEMI-GARGANTUAN
(CHARACTER IS UP TO TWENTY-FOUR TIMES HUMAN SIZE)
Cost

68 **Greater Strength:** +68 STR
23 **Greater Toughness:** +23 CON
23 **More Impressive:** +23 PRE
14 **Tougher:** +14 PD
14 **Tougher:** +14 ED
14 **Greater Mass:** +14 BODY
14 **Greater Toughness:** +28 STUN
23 **Reach:** Reach +23m (total of 24m)
64 **Long Legs:** Running +54m
27 **Heavy:** Knockback Resistance -27m
30 **Gargantuan Hands And Feet:** Area Of Effect (3m Radius; +¼) for up to 80 STR, Reduced Endurance (0 END; +½)

Total cost: 314 points.

Complication: Physical Complication: Semi-Gargantuan (+7 OCV to hit character, +7 to others' PER Rolls to perceive him) (Very Frequently, Greatly Impairing) (25 points)

Cost For Growth: 140 points.

SIZE: SEMI-COLOSSAL
(CHARACTER IS UP TO FORTY-EIGHT TIMES HUMAN SIZE)
Cost

83 **Greater Strength:** +83 STR
28 **Greater Toughness:** +28 CON
28 **More Impressive:** +28 PRE
17 **Tougher:** +17 PD
17 **Tougher:** +17 ED
17 **Greater Mass:** +17 BODY
17 **Greater Toughness:** +34 STUN
47 **Reach:** Reach +47m (total of 48m)
66 **Long Legs:** Running +66m
33 **Heavy:** Knockback Resistance -33m
75 **Colossal Hands And Feet:** Area Of Effect (6m Radius; +½) for up to 100 STR, Reduced Endurance (0 END; +½)

Total cost: 428 points.

Complication: Physical Complication: Semi-Colossal (+9 OCV to hit character, +9 to others' PER Rolls to perceive him) (All The Time, Greatly Impairing) (30 points)

Cost For Growth: 190 points.

EXPANDED SIZE TEMPLATES

SIZE: MONUMENTAL
(CHARACTER IS UP TO 125 TIMES HUMAN SIZE)
Cost
105 **Greater Strength:** +105 STR
35 **Greater Toughness:** +35 CON
35 **More Impressive:** +35 PRE
21 **Tougher:** +21 PD
21 **Tougher:** +21 ED
21 **Greater Mass:** +21 BODY
21 **Greater Toughness:** +42 STUN
124 **Reach:** Reach +124m (total of 125m)
84 **Long Legs:** Running +84m
42 **Heavy:** Knockback Resistance -42m
157 **Colossal Hands And Feet:** Area Of Effect (16m Radius; +¾) for up to 140 STR, Reduced Endurance (0 END; +½)
Total cost: 666 points.
Complication: Physical Complication: Monumental (All The Time, Fully Impairing) (35 points)

SIZE: SKYSCRAPERISH
(CHARACTER IS UP TO 250 TIMES HUMAN SIZE)
Cost
120 **Greater Strength:** +120 STR
40 **Greater Toughness:** +40 CON
40 **More Impressive:** +40 PRE
24 **Tougher:** +24 PD
24 **Tougher:** +24 ED
24 **Greater Mass:** +24 BODY
24 **Greater Toughness:** +48 STUN
249 **Reach:** Reach +249m (total of 250m)
96 **Long Legs:** Running +96m
48 **Heavy:** Knockback Resistance -48m
240 **Colossal Hands And Feet:** Area Of Effect (32m Radius; +1) for up to 160 STR, Reduced Endurance (0 END; +½)
Total cost: 929 points.
Complication: Physical Complication: Skyscraperish (All The Time, Fully Impairing) (35 points)

SIZE: CLOUDCUTTING
(CHARACTER IS UP TO 500 TIMES HUMAN SIZE)
Cost
135 **Greater Strength:** +135 STR
45 **Greater Toughness:** +45 CON
45 **More Impressive:** +45 PRE
27 **Tougher:** +27 PD
27 **Tougher:** +27 ED
27 **Greater Mass:** +27 BODY
27 **Greater Toughness:** +54 STUN
499 **Reach:** Reach +499m (total of 500m)
108 **Long Legs:** Running +108m
54 **Heavy:** Knockback Resistance -54m
337 **Colossal Hands And Feet:** Area Of Effect (64m Radius; +1¼) for up to 180 STR, Reduced Endurance (0 END; +½)
Total cost: 1,331 points.
Complication: Physical Complication: Cloudcutting (All The Time, Fully Impairing) (35 points)

EXPANDED GROWTH TABLE

Cost	Category	Height	Width	Mass (kg)	STR	CON	PRE	Defs	BOD	STUN	Reach	Run	KB
15	Semi-Large	Up to 3m	Up to 1.5m	100-400	+8	+3	+3	+2	+2	+4	+1m	+6m	-3m
25	Large	3.1-4m	1.6-2m	401-800	+15	+5	+5	+3	+3	+6	+1m	+12m	-6m
40	Semi-Enormous	5-6m	2-3m	801-3,200	+23	+8	+8	+5	+5	+10	+2m	+18m	-9m
50	Enormous	7-8m	3-4m	3,201-6,400	+30	+10	+10	+6	+6	+12	+3m	+24m	-12m
65	Semi-Huge	9-12m	5-6m	6,401-25,000	+38	+13	+13	+8	+8	+16	+5m	+30m	-15m
90	Huge*	13-16m	7-8m	25,001-50,000	+45	+15	+15	+9	+9	+18	+7m	+36m	-18m
100	Semi-Gigantic	17-24m	9-12m	50,001-200,000	+53	+18	+18	+11	+11	+22	+11m	+42m	-21m
120	Gigantic	25-32m	13-16m	200,001-400,000	+60	+20	+20	+12	+12	+24	+15m	+48m	-24m
140	Semi-Gargantuan	33-48m	17-24m	400,001-1.6mil	+68	+23	+23	+14	+14	+28	+23m	+54m	-27m
150	Gargantuan	49-64m	25-32m	1.7-3.2mil	+75	+25	+25	+15	+15	+30	+31m	+60m	-30m
190	Semi-Colossal	65-96m	33-48m	3.3-12.8mil	+83+28	+28	+17	+17	+34	+47m	+66m	-33m	
215	Colossal	97-125m	49-64m	12.9-25.6mil	+90	+30	+30	+18	+18	+36	+63m	+72m	-36m
300	Monumental	126-250m	65-125m	25.7-205mil	+105	+35	+35	+21	+21	+42	+119	+84m	-42m
400	Skyscraperish	251-500m	126-250m	206-1,640mil	+120	+40	+40	+24	+24	+48	+249	+96m	-48m
600	Cloudcutting	501-1000m	251-500m	1,641-13,120mil	+135	+45	+45	+27	+27	+54	+499	+108	-54m

SOME COMPARISONS

Points Of Growth	Approximately Equal In Size To...
190 (Semi-Colossal, 96m)	Length of a football field (91m)
215 (Colossal, 125m)	Height of the Washington Monument (169m) or a Saturn rocket
300 (Monumental, 250m)	Height of the Eiffel Tower (324m)
400 (Skyscraperish, 500m)	Height of the Empire State Building (381m)
600 (Cloudcutting, 1,000m)	Elevation of the lowest clouds

***:** Beginning at the Huge level of Growth, the character's hands and feet become large enough to qualify as Area Of Effect attacks; see the Size Templates on 6E1 443 for details.

Each level of Growth imposes upon the character a Physical Complication that makes him easier to hit and to perceive (+2 OCV to hit and +2 to PER Rolls to perceive for each doubling of height); see the Size Templates on 6E1 443 for details.

HAND-TO-HAND ATTACK

If a character has an Uncontrolled HA, the pool of END used to power the ability must cover the END for both the HA itself and the STR used with it. This cost must be paid each Phase, but if the character uses his STR for something else in a Phase, he doesn't have to pay END again, per the usual rules — he only pays END once in a Phase for all uses of STR, but in this case the END comes from the Uncontrolled pool. (See 6E2 100 for rules about adding STR to Advantaged HAs.) An Uncontrolled HA should have "target moves out of HTH Combat range" as the condition (or one of the conditions) that causes the Uncontrolled effect to cease.

If a character has a Power Framework where all the slots are HAs, he can apply the *Hand-To-Hand Attack* (-½) Limitation to the Framework's base cost/reserve.

If a character has an HA Damage Shield, the HA damage adds to his STR as usual. He cannot include damage from Martial Maneuvers or the like, just HA + STR. (A character can apply Damage Shield to a specific Martial Maneuver in appropriate circumstances, using the rules for that in HSMA.)

HEALING

In a situation where two or more characters want to apply Healing to the same target, and one of the characters' Healing powers has the *Decreased Re-Use Duration* Advantage, each character uses his own power's duration for determining when he can apply Healing a second, third, or further times without being subject to the maximum effect rules. The duration is calculated for each character from when he first tries to Heal the target.

Example: *Brother Herbert has a Healing BODY 2d6 spell (maximum effect 12 points, or 6 BODY). Brother Willem has a Healing BODY 2d6 spell, Decreased Re-Use Duration (1 Turn) (again, maximum effect 12 points, or 6 BODY). Their friend Artorius the Bold has been badly injured in battle, suffering 8 BODY worth of wounds. In Turn 1, they both decide to try to Heal Artorius. Herbert acts in Segment 3 and rolls 8 (thus Healing 4 BODY). On his Phase in Segment 4, Willem tries to Heal Artorius as well. Willem has to roll more than 8 on his 2d6 to Heal Artorius further, and can only Heal him to the extent his roll exceeds 8. However, whereas Herbert has to wait 1 Day before he can apply Healing without being subject to the maximum effect rules, Willem only has to wait until Segment 4 of Turn 2 (one Turn later). At that time he can apply his Healing power anew, regardless of what he, Herbert, or any other healers did in the intervening time.*

TAKING EXTRA TIME FOR FULL EFFECT

The way most Healing-based powers and abilities work, it's plausible to think that a character who takes more time should get a better result. Normally a character might be able to obtain this sort of result with the *Constant* (+½) Advantage, but the maximum effect rules for Healing mean a character may have to take a *lot* of time and make a *lot* of rolls before he gets his full result.

As an optional rule, the GM can say that any character who takes additional time when using his Healing power — one step down the Time Chart — automatically gains the maximum result for his Healing without having to make an Effect Roll.

Example: *Father Mikael has a Curing-Spell (Simplified Healing 6d6) with the Limitation* Extra Time *(1 Turn). If he takes even more time — 1 Minute, the next step down the Time Chart from 1 Turn — he automatically does 36 STUN, 12 BODY (halved to +18 STUN, +6 BODY) with his Healing without having to make an Effect Roll.*

(The GM can, if he wishes, use this rule/concept with other powers. For example, if a character has a typical Mind Control attack, maybe if he takes a full Turn to use it on a target, he automatically gets his maximum Effect Roll.)

ADVANTAGES

Cumulative: Normally characters cannot buy the *Cumulative* Advantage for Healing, since it doesn't involve applying a total rolled on the dice to a defense to determine an effect. However, if the GM prefers, characters can use Cumulative with Healing as a way to guarantee they can achieve their maximum effect with every use. A character can use Cumulative Healing again and again on a particular character (or, if preferred, a specific wound), adding the effect rolls together without later rolls having to exceed earlier rolls, until the character reaches the maximum possible effect for his Healing. Characters cannot pay extra for Cumulative to increase the maximum effect of their Healing; they're restricted to the maximum imposed by the dice of Healing they've purchased.

Example: *Anne O'Dyne has the ability to heal the injuries of others, which she's bought as Healing 4d6, Cumulative. When she uses her Healing, she can keep using it again and again until her Effect Rolls add up to 24 STUN, 8 BODY — the maximum result she could achieve on a 4d6 roll.*

Anne's helping Nighthawk on a secret mission, and during the mission Nighthawk gets shot. He suffers a 21 STUN, 7 BODY wound (after applying his defenses). Anne heals him. She applies her Healing, rolling 12 STUN, 4 BODY on her first roll (leaving Nighthawk at -15 STUN, -5 BODY). Her next Phase, she applies Healing again, rolling 6 STUN, 2 BODY (total of 18 STUN, 6 BODY, leaving Nighthawk at -12 STUN, -4 BODY). She tries again her third Phase, rolling 13 STUN, 4 BODY (total of 24 STUN [her

maximum], 8 BODY [her maximum], enough to heal Nighthawk to -9 STUN, -3 BODY.

Trigger: Typically characters shouldn't be allowed to buy Healing with Triggers such as "when STUN is reduced to 0 or less," since such abilities can unbalance the campaign. If the GM permits a character to have this sort of a power, if it restores the character to consciousness before the end of the Segment he doesn't suffer any of the standard effects for being Knocked Out. However, since being Stunned is an instantaneous thing, it wouldn't prevent a character from becoming Stunned by an attack even if it effectively negates some or all of the loss of STUN.

IMAGES

If a character creates an Image of a warrior, monster, policeman, or something else that should have a DCV, its DCV is whatever DCV the character creating it wants it to have, subject to the GM's permission. But of course an extremely high DCV is likely to tip attackers off that there's something amiss, probably providing a bonus to PER Rolls to realize the Image isn't real.

ADVANTAGES

Constant: Taking the *Constant* (+½) Advantage for Images means that characters perceiving an Image must make PER Rolls every Phase, but that could be good or bad for the character creating the Image depending on whether the perceivers failed the first time. Anyone perceiving the Image has to make a PER Roll each Phase, and whether he believes the Image is real or not can change from Phase to Phase depending on whether his roll that Phase fails or succeeds. Once the character succeeds with a PER Roll, the GM may grant bonuses to any further PER Rolls, since realizing the Image isn't real one time tends to make the character more suspicious going forward.

Indirect: Images are not in any way "Indirect" by default; a character cannot create one on the other side of a glass window or the like. (Though as always, the GM can grant exceptions in the interest of common and dramatic sense.) Characters can buy Indirect for Images to alter the Source Point of the Power.

INVISIBILITY

Invisibility to the Mental Sense Group makes a character imperceivable by Mind Scan, and by Detect Mind and any other Senses or Detects included in the Mental Sense Group. It generally has no effect against Telepathy or Mind Link, since that requires LOS — if the mentalist can see someone, he can use his Telepathy on that person, since Telepathy isn't a Mental Sense even though it has Sense-like aspects.

A "mentally Invisible" character can only be located with Mind Scan (or other Mental Senses) if the mentalist makes a Mind Scan Attack Roll at OMCV 0 (or at ½ OMCV if the mentalist is within 2m of the target and makes a PER Roll to spot the fringe [if any]). If a Mind Scan lock-on is established, the Invisibility has no further effect against the Mind Scanning character (unless the lock-on is broken somehow). The Invisibility still applies to other mentalists, though they can may be able to use their Mental Awareness to "trace" the first mentalist's use of Mind Scan and perceive where the target is.

Invisibility to the Mental Sense Group doesn't affect Mental Awareness, since that Sense only detects the use of Mental Powers, not the mere possession of them. Nor does it interfere with the character's ability to use his own Mental Powers, if any. But if a character who's Invisible to the Mental Sense Group uses a Mental Power, a character with Mental Awareness can perceive the use of that Power (unless the power has the *Invisible Power Effects* to make it Invisible to Mental Senses).

Being Invisible to the Mental Sense Group doesn't hide the use of Mental Powers from others, any more than being Invisible to Sight Group allows a character to apply Invisible Power Effects to his Blast for free. If the character uses Telepathy to send thoughts to someone, he can receive thoughts from that person, and anyone using Mental Awareness can perceive the exchange. If he has Mind Scan, he can Scan for a mind, and anyone with Mental Awareness can perceive that he's doing so.

INVISIBILITY ONLY WHEN ATTACKING

If a character has Invisibility with the Limitation *Only When Not Attacking,* most abilities that involve an Attack Roll and that could negatively impact a target in any way count as "an attack." This includes things like Images that don't necessarily cause physical harm.

LEAPING

As noted on 6E1 243, characters ordinarily cannot change direction in mid-Leap. However, at the GM's option, in some situations a character may be able to use Leaping to "bounce" off of surfaces (usually vertical ones) to change direction or "ricochet" himself in the middle of a Leap.

To bounce, a character must has an appropriate surface to bounce off of, such as the side of a building, a wall or ceiling in a room, or the trunk of a large tree. He must declare a target point for the end of his Leap as usual. The total meters traveled, from the starting point, to the point of bouncing, to the end target point, cannot exceed the character's meters in Leaping (though he could bounce with a Noncombat Leap if he wants to, unless the GM rules otherwise).

To bounce, a character must make an Acrobatics roll at +1, or a DEX Roll at -2. If the roll succeeds, he performed the bounce properly and may now make his Attack Roll to hit his target point. If he could perceive the target point before making his Leap, the Attack Roll is unmodified; if he could not perceive it, he suffers the standard penalties for inability to perceive his target with a Targeting Sense. If the bouncing roll fails, the attempt to bounce also fails. The GM determines where the character ends up landing based on the character's trajectory, the surface he bounced off of, special effects, common sense, and dramatic sense; he may also require the character to succeed with a Breakfall roll to keep his footing when he lands. In some cases an attempt to bounce may automatically fail (for example, when the bouncing surface *looks* solid but is so fragile the Leaping character just crashes right through it).

At the GM's option, a character may perform a Leap involving *multiple* bounces (such as ricocheting around inside a room to perform a Multiple Attack with Move By). The total distance traveled still may not exceed the character's meters in Leaping. The character must make an Acrobatics or DEX Roll as described above, but suffers an additional modifier of -1 per each additional bounce after the first. For example, if El Salto, the midget Mexican leaping supervillain, wanted to bounce off four walls to inflict a Surprise Attack on Nighthawk, he would have to make his Acrobatics roll at a -2 penalty (the base roll is Acrobatics +1, but he suffers a -3 penalty for bouncing off four walls).

At the GM's option, a character who wants to use Leaping to perform a Move By or Move Through can do so using bouncing — he hits the target and bounces off rather than going past him or plowing through him.

LIFE SUPPORT

Here are some additional rules and guidelines for Life Support.

EXPANDED IMMUNITY

The accompanying text box lists some specific examples of Immunity to make it easy for characters to determine how much they should spend on this form of Life Support.

IMMUNITIES

Cost	Very Broad Immunities
5	All terrestrial diseases and biowarfare agents
5	All terrestrial poisons and chemical warfare agents
	Broad Immunities
4	Phytotoxins (poisons derived from plants)
4	Zootoxins (poisons derived from animals)
	Specific Group Immunities
2	Alcohol (beer, bourbon, gin, whiskey, dwarven ale)
2	Asphyxiants (chlorine gas, phosgene gas)
3	Bacterial Infections (anthrax, the plague, brucellosis, typhoid fever)
2	Blistering Agents (Vesicants) (mustard gas, Lewisite)
1	Fungal Infections (desert fever)
2	Haemotoxins (cyanide, cyanogen gas)
1	Microbe Toxins (botulin, B, TZ)
2	Nerve Gases (Tabun, Sarin, Soman, VE, VM, VX)
2	Neurotoxins (poisons which kills by attacking the nervous system)
2	Neutralizing Agents (tear gas, itching powder, retching agents)
1	Rickets Infections (typhus, purple fever, Queensland fever)
3	Venoms from one category of plant or animal (*e.g.,* all reptile venoms)
2	Venoms from one type of plant or animal (*e.g.,* ophidotoxins — venoms from snakes)
3	Viral Infections (smallpox, HIV, ebola and Lassa viral fevers, yellow fever)
	Individual Substance/Disease Immunities
1	Common cold/flu
1	Malaria
1	Rabies
2	Tetanus
1	Venom from any single rare or common poisonous plant or animal (*e.g.,* coral snake, black widow spider)
2	Venom from any single very common poisonous plant or animal (*e.g.,* rattlesnake)

LIFE SUPPORT AS A DEFENSE

Many AVADs have one or more forms of Life Support, typically a Safe Environment, as the defense against them — in fact, often choosing Life Support as a defense is pretty much mandatory, given the special effects in question. For example, a Radiation Pulse NND would have Safe Environment (High Radiation) as the defense, and a Bitter Cold NND would have Safe Environment (Intense Cold). To not choose those forms of Life Support as a defense removes some of the utility Life Support provides, so GMs should be very cautious about allowing it.

Gamers interested in greater variation among characters can extend the concept of Life Support as a defense in two ways. First, they can reduce the effectiveness of all of the Safe Environments that cost 2 Character Points. With this option, characters can buy 1-point versions of those four Safe Environments. The 1-point version is half as effective as the regular 2-point version:

- when used as a defense against an AVAD (including NNDs) or similar attacks, a 1-point Safe Environment doesn't provide an absolute defense; it reduces the damage done by half.
- the Safe Environment is otherwise roughly half as effective (with the GM determining exactly what this entails). For example, a character with 1-point Safe Environment (Intense Cold) can stay in extreme cold longer than other characters before he feels uncomfortable or develops frostbite, but eventually he'll suffer problems. One with Safe Environment (High Radiation) can take a lot more rads than other characters, but after enough exposure he'll begin suffering radiation poisoning.

Second, the GM can allow Safe Environments to have some effect against attacks of the appropriate special effect that aren't AVADs. This may either be a part of how those attacks work in the campaign (*i.e.,* characters get no Limitation for it), or it might constitute a -¼ (at most) Limitation on the attacks. Here's how this works:

Safe Environment (High Pressure): reduces the damage caused by Gravity attacks (and similar attacks) that squeeze or crush the character by 10%.

Safe Environment (High Radiation): reduces the damage caused by Radiation attacks by 25%

Safe Environment (Intense Cold): reduces the damage caused by Ice/Cold attacks by 25%, provided the attack does Energy damage (it has no effect against, for example, crushing blocks of Ice that do Physical damage)

Safe Environment (Intense Heat): reduces the damage caused by Fire/Heat attacks by 25% (alternately, it might reduce pure Fire attacks by 25%, and pure Heat attacks by 50%)

The GM can also apply this to other forms of Life Support if he wishes, such as using Life Support (Longevity) to reduce the effects of Time-based attacks. In all cases, the reduction of damage applies *after* the character uses his defenses to reduce the attack's damage, just like the *Damage Reduction* Power. (If the character also has Damage Reduction, apply it to the damage that gets past defenses first, then use Life Support to further reduce the remaining damage.)

If the GM prefers, he can even scale this effect based on the value of a Limitation, *Expanded Defensive Effect,* taken on an attack. For a -0 Limitation, the appropriate Safe Environment reduces damage by 10% (or this may be the campaign default, worth no Limitation at all). For a -¼ Limitation, it reduces the damage by 25%. For a -½ Limitation, it reduces the damage by 50%. For a -1 Limitation, it reduces the damage by 75%. In some cases, the GM may require that characters always take a Limitation of a minimum value for attacks of a particular special effect; for example, Ice/Cold attacks might always have to take the Limitation at the -¼ value. (Characters cannot take this Limitation for NNDs, which are an all-or-nothing form of attack.)

LUCK

Characters cannot use Overall Skill Levels to increase or improve the results of a Luck roll.

OTHER WAYS OF USING LUCK

Besides the standard "count the 6s" method described above, other ways exist to simulate the effects of Luck in the game. They include:

- At the beginning of a game session, the player rolls his Luck dice and counts the Normal Damage BODY. The number of BODY equals the number of rolls the player may re-roll during that game to get a better result.
- At the beginning of a game session, the player rolls his Luck dice and counts the total. That total represents a number of points the player may add to or subtract from rolls throughout that game to get better results.
- At the beginning of a game session, the player rolls his Luck dice and counts the total. That total represents the number of individual dice the player may re-roll during that game to get a better result.
- As an optional rule, the GM can allow Luck to help characters who have Gambling. Every 6 rolled for Luck adds +2 to the Gambling roll.

Note that some of these methods are similar to Heroic Action Points (see below), and therefore may not be used in a game that uses HAPs.

In all cases where the GM uses Luck to allow a player to re-roll dice, re-rolls must achieve a better result than the original roll. The player may keep rolling (without sacrificing any more of his Luck-based re-rolls) until he gets a better result.

LUCK AND HEROIC ACTION POINTS

If the GM's using the Heroic Action Points rules (6E2 287) in the campaign, he should decide how they interact with Luck. Some possibilities include:

- Characters cannot buy Luck; they have to rely on their HAPs.
- Every 1d6 of Luck purchased adds to the dice the character rolls at the beginning of the game session to determine how many HAPs the character has that session; otherwise, characters cannot use Luck.
- Ordinarily characters can only use HAPs to improve his own rolls or abilities, but if a characters succeeds with a Luck roll, he can use HAPs to alter other characters' rolls. Luck has no other function in the game.
- Characters can have both HAPs and Luck; each functions as indicated in the rules and doesn't affect the other.

MENTAL BLAST

As an optional rule for campaigns that involve heavy use of Mental Powers, the GM might decide that Mental Blasts do damage to the target's EGO, just as if EGO were BODY: a roll of 1 is 0 EGO damage, a roll of 2-5 is 1 EGO, and a roll of 6 is 2 EGO. Mental Defense protects against this damage the same way that PD and ED protect against BODY damage from ordinary attacks.

MENTAL DEFENSE

Depending on how the GM conceives of Mental Power and Mental combat as working in his campaign, he may want to establish a "Characteristic Minima" governing the purchase of Mental Defense. What this means is that the amount of Mental Defense a character can buy depends on the value of a certain Characteristic — typically DMCV, but possibly OMCV or EGO (or even an average of OMCV and DMCV). For example, characters might not be allowed to have more Mental Defense than their DMCV times 3.

MENTAL ILLUSIONS

Here are some additional rules and guidelines for Mental Illusions.

KNOWLEDGE OF MENTAL ILLUSIONS

If a target knows that a character has a Mental Illusions power (perhaps because he's been affected by it previously), the character suffers a -10 on his Effect Rolls. It's harder to make someone believe an Illusion when they're aware that you can create Illusions.

TIME

Typically time passes the same for a character subjected to Mental Illusions as for other characters. His SPD remains the same, and he gets a Full Phase's worth of Actions on each of his Phases to react to the Illusion. As noted above, he spends END like normal, and otherwise interacts with the world and the *HERO System* rules as normal (except as noted here or changed by the GM in the interest of common sense, dramatic sense, special effects, and other factors).

At the GM's option, at the EGO +30 level, a mentalist can alter a target's sense of time in a Mental Illusion. He can cause him to go through Turns, minutes, perhaps even years' worth of time in a single Segment, or stretch what seems like a single Segment over a Turn or more of time. Thus, the character might *feel* like he's been doing something for an hour, even though it's only been twelve seconds. A character could be forced to live an entire illusory lifetime in the space of an hour. Similarly, a Mental Illusion could be used to make a character think that a given time frame is much shorter than it actually is (a good way to sit quietly through long, boring journeys or lectures). However, Illusions of combat situations should generally correspond to the "real world" on a Phase-by-Phase basis.

The GM is the final arbiter of the exact temporal correspondence between Illusion and reality. He might rule, for example, that an illusion that's supposed to simulate three days of "real life" must last for three Turns of game time. If the character breaks out of the Illusion before three Turns have passed, the effect automatically fails.

If the GM allows Illusions to distort time in this manner, then he may either allow it "for free," or he may require a mentalist to achieve +10 points of effect on the Mental Illusion roll to create gross distortions of time.

OTHER EFFECTS ⚠

As noted in the rules, a Mental Illusions can only do Normal Damage — even if the illusion is of, for example, a Killing Damage weapon. This inconsistency may provide the target of a Mental Illusion with a chance to roll to break out of the illusion. At the GM's option, a character's Mental Illusions do the appropriate type of damage (Killing Damage for guns, knives, and the like; NND Damage for knockout gas; and so on) if the character takes an Advantage, *Illusions Do Appropriate Damage* (+½), for the power. With the GM's permission the damage caused by Mental Illusions with this Advantage can have Advantages that affect damage, such as NND, Armor Piercing, or the like. The Active Points in the "attack" still depends on the Effect Roll. For example, if the Effect Roll is 40 and the mentalist wants the damage to be a Blast with Penetrating (+½), the most dice of damage he can do is 5d6 (25 x 1.5 = 37 Active Points, which fits within 40 points, whereas 6d6 would be 45 Active Points). (Alternately, the GM may dispense with the "Illusions Do Appropriate Damage" Advantage and simply

establish a house rule that illusions always do the appropriate type of damage.)

At the GM's option, mentalists may create/cause "unusual effects" other than damage with certain Mental Illusions. This requires a +20 Effect Roll modifier, and the "Active Points" in the Power(s) used to create the effect must be equal to or less than the total Effect Roll or the Active Points in the Mental Illusions power, whichever is less. If any of the Power(s) used are Constant, the mentalist must maintain the Illusion by paying the full END cost for the Mental Illusions each Phase (this END doesn't prevent the Illusion from deteriorating — it's in addition to any END the character spends to keep the illusion from deteriorating). If something blocks the mentalist's LOS, or if he switches to a different Power Framework slot (other than the one is Mental Illusions power is in), the unusual effect vanishes at once. Some examples of unusual effects include:

- Change Environment (illusions of altered weather and similar phenomena, thick fog, or the like)
- Darkness (illusions of dark night or a total eclipse)
- Drains of Running or DEX (illusions of slippery ice or marshy ground underfoot)
- Entangle (illusions of quicksand, Ironclad grabbing the target, magical chains appearing from nowhere)
- Flash (illusions of a bag over the victim's head, a bright light, a handful of sand thrown in the eyes)
- Telekinesis (illusions of enlarging an object so other characters cannot pick it up)

If an unusual effect would do STUN or BODY damage to a target, the mentalist must achieve the necessary +10 or +20 effect in addition to the +20 he must achieve to create the unusual effect.

At the GM's option, a Mental Illusion can make a "Presence Attack" against an affected character if the Illusion is particularly impressive. To do this, the mentalist must declare his Effect Roll at +10; this is separate from the +10/20 needed to do damage. The maximum "points of Presence" with which the attack is made equals the Effect Roll achieved with the Mental Illusions dice or the Active Points in the Mental Illusions power, whichever is less. Of course, the Illusion must be of something the victim considers impressive; if the Illusion isn't appropriate for these purposes, the GM shouldn't let the character roll a Presence Attack, or should reduce the number of dice available.

MULTIPLE EFFECTS

If a character wants a Mental Illusion to have multiple combat effects (such as causing damage and achieving a Change Environment effect, he must get the GM's permission. This typically requires him to achieve the next highest level of effect on his Effect Roll. If causing damage ordinarily requires a base "major changes to setting" (EGO +10) roll (plus the modifier for causing damage), then causing damage *and* creating another effect is clearly better, so a higher level of effect (EGO +20, plus the modifier for causing damage *and* the modifier for an unusual effect).

SUGGESTIBILITY

A mentalist can make a target more susceptible to the effects of a Mental Illusion in the right circumstances. For example, suppose he carries around a .44 Magnum handgun and makes sure people know he carries it (perhaps he has a Negative Reputation for carrying a gun, for example). It might even be a fake pistol — all that matters is that people *think* it's real. The mentalist might use his Mental Illusions to make his target think he (the metnalist) has just pulled out the pistol and shot him (the victim). Since the target already thinks the mentalist has a gun, this illusion is more believable than the "average" illusion. In this sort of situation, the GM might grant the mentalist a bonus of +5 or more on his roll on his Effect Roll (in some cases, this bonus would only apply to achieving a high enough effect to do damage to the target). However, the GM might make this bonus contingent on the target making an INT Roll or Negative Reputation roll to realize who the mentalist is.

MIND CONTROL

The GMs for some campaigns, particularly campaigns that involve a lot of Mental Powers, may want to consider ignoring Telepathic and assume that Mind Control is automatically telepathic. In that case, Mind Control that requires spoken commands can take the *Incantations* Limitation (though in some cases the GM may let the mentalist whisper orders to the victim).

If a character's been the victim of a Mind Control that achieved the +20 modifier so the target thinks his actions were natural, at the GM's option it may be possible for other characters to convince him he was Mind Controlled. It all depends on how the GM defines Mental Powers as working in his campaign, the special effects involved, and other factors. Just telling the character he was Mind Controlled won't do it; the victim firmly believes he acted on his own. Telepathy alone isn't enough — sufficiently strong Telepathy reveals to the telepath what happened, but the best he can do is to tell the Mind Control victim, who probably won't believe him (or at least is highly skeptical). A mentalist can use a "psionic surgery" Mental Transform to "remove" the "mental blocks" that prevent the victim from remembering and restore to him the memory of what was done to him; see APG 128-30.

HYPNOSIS

One form of Mind Control in many genres and settings is *hypnosis.* Defining hypnosis is difficult; it's been said that the number of definitions of hypnosis roughly equals the number of practitioners. For game purposes hypnosis can be considered a trance state in which the subject relaxes, experiences heightened imagination, and is extremely suggestible. In effect it allows the hypnotist to bypass the subject's conscious mind to directly access the subconscious. Subjects tend to become playful, imaginative, and willing to go along with bizarre suggestions (such as clucking like a chicken or pretending to pet a dog). It's the suggestibility aspect that relates hypnosis to Mind Control. (Because the subconscious mind stores a person's memories, hypnosis also allows a hypnotist to "access" memories for therapeutic purposes... or to learn something he wants to know, or possibly even to plant false memories. These aspects of hypnosis require Telepathy and Mental Transform; they can't be accomplished with Mind Control.)

Although hypnosis-like states and experiences have been known for centuries (often in religious or mystical contexts, such as a shaman's meditative trance), hypnosis in the modern sense dates to the late 1700s. Austrian physician Franz Mesmer studied and described the phenomenon; he considered it a quasi-mystical force that emanated from the hypnotist into his subject. Since his time hypnosis has been studied and practiced extensively, to the point where it's often used in various forms of therapy today.

REALISTIC HYPNOSIS

Some experts believe people self-hypnotize themselves frequently by becoming deeply absorbed in a daydream, book, movie, task, or the like, but for game purposes, there are two types of hypnosis: *realistic* and *cinematic.* Realistic hypnosis, the type used by most modern practitioners, is very restricted in many ways. First, it requires extensive time and preparations to induce a hypnotic trance. Depending on the subject's fitness for hypnosis, the entire process may take as little as 5 Minutes, or as long as 20 Minutes (or more), though some skilled entertainer hypnotists can put people into simple hypnotic trances much more quickly on stage. The methods used include eye fixation (getting the subject to focus exclusively on one object, such as a pocketwatch or shiny fountain pen, so that he tunes out everything else and relaxes into a trance), rapid mental overload with repeated forceful suggestions, and progressive relaxation guided by the hypnotist's soothing voice and instructions.

Second, a hypnotist must have a subject who's willing to be hypnotized. A person who's determined not to be hypnotized can't be; he has to agree to the process. (However, some experienced hypnotists argue they can hypnotize virtually anyone, in part by subconsciously changing a person's willingness to undergo hypnosis.)

Third, while realistic hypnosis can induce relaxation and remove inhibitions to the extent of eliminating a subject's fear of embarrassment or the like, it cannot make him ignore his own personal safety, conscience, or morality (in game terms, it can only achieve an EGO +10 level of effect). In short, realistic hypnosis can't make the subject do something he doesn't want to do.

Realistic hypnosis is appropriate for campaigns and settings that also consider themselves "realistic," such as many Dark Champions games.

CINEMATIC HYPNOSIS

Cinematic hypnosis, on the other hand, isn't nearly as restricted. Depending on the genre and setting, it may not differ much at all from outright Mind Control in the Superhero or Science Fiction sense. A cinematic hypnotist may be able to induce a hypnotic trance with little more than a second or two of speaking to someone... and cinematic hypnotism can make a subject do nearly anything. This includes things that are dangerous or even possibly fatal ("Jump off that ledge"), the complete removal of inhibitions or conscience ("Take this gun and shoot your husband"), and so on. While cinematic hypnosis is a little more restricted than pure psionic Mind Control, it's still very powerful in most contexts.

Cinematic hypnosis is particularly adept at implanting *post-hypnotic suggestions* into the mind of a hapless victim. A post-hypnotic suggestion is a command that takes effect only when the subject is exposed to a particular phenomenon, such as a command word or seeing a particular sequence of flashing lights. The command lies dormant in the subconscious until that time, but springs into full effect when the victim experiences the trigger phenomenon. Among other things, this is a great way for a villains who knows hypnosis to create potential armies from innocent people he encounters during the course of the campaign. One command word, and suddenly the hero's surrounded by dozens of everyday people determined to kill him! (See below regarding Trigger and post-hypnotic suggestions.)

ADVANTAGES

Long-Term Control (+½, +1, +2): STOP In some genres and settings, characters have the power to establish Mind Control that lasts for long period of time — sometimes years or decades. Given the way the Breakout Roll rules work, doing this with Mind Control is difficult at best, since the odds are the victim of Mind Control will succeed with his Breakout Roll within a few minutes in most cases. At the GM's option, to create Mind Control effects that are likely to last for much longer periods of time, characters can buy the new Advantage *Long-Term Control.* For a +½ Advantage, the Mind Control automatically doesn't "deteriorate" over time; the target's Breakout Roll is an EGO Roll unmodified by time. (Other modifiers, such as for a friend trying to "snap him out of it," can still apply.

For a +1 Advantage, all Breakout Rolls after the first are made at one additional step down the Time Chart — the first is made in the character's first Phase after being Controlled, but the second is made after 1 Minute (not 1 Turn), the third after 5 Minutes (not one), the fourth after 20 Minutes (not five) and so forth. For each additional +½ Advantage, the character can move the second Breakout Roll another step down the Time Chart. For example, for a total +2½ Advantage, the second Breakout Roll wouldn't occur until 1 Hour after the first.

Regardless of how much the character spends on this Advantage, the target *always* gets to make his first Breakout Roll in his first Phase after being Controlled (see 6E1 149-50). Furthermore, the target still gets bonuses to his Breakout Roll for the passage of time. This is the standard cumulative +1 for each roll after the first. In the example above, when the character makes his second Breakout Roll after 1 Hour, he makes it at a +1; when he makes his third Breakout Roll after 6 Hours, it's at +2; and so on. The character typically cannot pay END to prevent this Breakout Roll from deteriorating, since combat doesn't occur over such lengths of time and spending END to prevent deterioration doesn't really hinder or affect the character in any way. However, with the GM's permission characters can buy both the +½ and the +1 form of the Long-Term Control for the same power so that the Breakout Rolls get made at greater time intervals *and* do not get bonuses over time.

At the GM's option, characters can take any form of this Advantage for other continuing-effect Mental Powers. It's listed here because it's most often applied to Mind Control. Characters who want to make permanent (or long-term) changes in a target's actions, beliefs, or thoughts should also consider using Mental Transform (*q.v.*).

Trigger: Mentalists can use Trigger to create "post-hypnotic suggestion" orders with Mind Control — an order the victim isn't supposed to perform right away, but at some point in the future when a specific event or phenomenon activates the suggestion. To do this, the mentalist must buy Trigger at a sufficient level to let him change the triggering event from use to use. When he successfully hits someone with Mind Control, he gives a command that specifies what the Trigger is (such as "When you see the President ride past, attack and kill him"). Then he rolls his Mind Control dice and notes the Effect Roll total. When the Trigger activates the Mind Control, compare the Effect Roll total to the target's EGO at that time to determine if the Mind Control succeeds. (For example, a post-hypnotic suggestion to "Take a nap" might only require EGO +10 ordinarily, but if the mentalist attempts to trigger it when the target is in combat, it probably requires an EGO +30 effect.) If the mentalist achieves the appropriate level of Control, the victim has to obey (though he gets standard Breakout Rolls beginning at that time, of course). If the Effect Roll isn't high enough or the first Breakout Roll succeeds, the suggestion fails.

You can also use post-hypnotic suggestions to simulate "long-term" Mind Control effects such as, "Meet me at Joe's Cafe tomorrow at noon." In this case, the Mind Control is Triggered by the passage of a certain amount of time, so until that time passes the victim doesn't get to make any Breakout Rolls.

Feedback (-1, -2): This Limitation, which can only be taken for Mind Control with the *Telepathic* Advantage, signifies that whatever pain a character in a Mind Control "link" feels, the character who possesses the Power also feels. See *Feedback* on 6E1 260 for more information. This is only appropriate if the character expects to regularly maintain "mental contact" so that he can prevent the Breakout Roll from increasing.

MIND LINK

At the GM's option, in some cases one or more characters may be able to Mind Link with someone before he goes to sleep, then share his dreams via the Link even though he's unconscious.

A character can use an existing Mind Link to obtain "Line Of Sight" with which to establish a Mind Link with another person. For example, suppose A establishes a Mind Link with B. Then C establishes his own Mind Link with B. If A wants to establish his own Mind Link with C, their existing Links to B give him "Line Of Sight" to do so even if he can't actually perceive C with a Targeting Sense (though A and C can't necessarily communicate just because they're both Linked to B; see below).

COMMUNICATION WITHIN THE LINK

If two persons are both Mind Linked to the same person but through separate or distinct links, those two persons can communicate with each other through the Links, but only via the "Linkee" they have in common. They can't communicate directly. For example, suppose A establishes a Mind Link with B. Then C establishes his own Mind Link with B. A and C can both mentally communicate with B (who's a part of both Links) or with each other — but they can only communicate with each other "through" B, so they can't conceal what they're "saying" from him.

If characters A, B, C, D, and E are all joined by one Mind Link, and characters V, W, X, Y, and Z are all joined by a different Mind Link, another character can use his Mind Link power to join both Links and hook up all ten characters into one big Link, provided that (a) his Mind Link power is built in such a way he can do that (for example, he can create a Link with nine people), and (b) the GM doesn't have some objection based on the nature of the powers, the special effects involved, and so forth.

With the GM's permission characters in a Mind Link can send "mental images" to one another rather than communicating by "mental speech." For example, rather than "saying" "I think you're an idiot," a character in a Mind Link could send the thought-image of a stupid-looking caricature of that person.

THE SUBJECT'S SENSES

A character Mind Linked with another character (the "subject") doesn't use the subject's Senses. He only receives the mental impressions of those Senses — he knows the character sees a particular building or smells the odor of gasoline, but doesn't himself see the building or smell gasoline. If a mentalist wants to use a subject's senses this way, he should buy Clairsentience Linked to his Mind Link, with the -1 Limitation *Only To Use Subject's Senses.*

Some examples:

- A subject in a Mind Link sees a sign in a language he doesn't know but the character with Mind Link does. The character knows the subject is seeing a sign, but he cannot see the sign or read what it says.
- A subject in a Mind Link experiences sensory input he's never had before but that the character with Mind Link has (for example, he smells a type of perfume he's never smelled before but that the character knows well). The character doesn't know what's being smelled; he recognizes only that the subject is smelling something, and that the subject cannot identify the smell.
- If the subject has Senses the character with Mind Link lacks, the character knows those Senses are being used and that something is being Sensed, but he can't really interpret the data beyond the Senses he possesses and uses. For example, if the subject uses Infrared Perception to perceive a building, and the character lacks Infrared Perception, he would understand that the subject is looking at a building, but (a) would not himself perceive the building (he would only know "a building is being perceived"), and (b) wouldn't understand the significance of the infrared patterns.

POWERS

Damage Negation, Damage Reduction: If Mind Link has the *Feedback* Limitation and a character in the Link suffers damage, the character who has Mind Link can't use the Physical or Energy forms of Damage Negation or Damage Reduction to reduce the Feedback damage he takes. However, if he has Mental Damage Negation or Mental Damage Reduction, they apply to reduce the Feedback damage even if that damage wasn't caused by a Mental attack.

MIND SCAN

Unless the GM specifically permits him to, a character can't use Mind Scan as a way to obtain information he wouldn't otherwise have access to. For example, he can't specify that he's searching for "the nearest criminal," since he has no real way of determining who's a criminal and who's not — letting him search that way would effectively turn Mind Scan into a form of Telepathy for free. However, with the GM's permission Mind Scan *can* have certain telepathic aspects. It could allow a character to search for, say, "Joe Smith," or "Anyone thinking about robbing the First National Bank last Friday." In other words, it lets him define a search based on what qualifies as "surface thoughts" for purposes of Telepathy: current thoughts and facts of extreme significance to the person. The more precisely a character can describe the thought-patterns he's looking for, the better his chances are of finding those patterns. If the GM believes the description is sufficiently precise, he should impose at most a slight penalty on the MCV Attack Roll — -0 to -2, at most. For less precise descriptions, the penalty can range as high as -5 or more (or the GM might not let the character make a Scan at all). Regardless of the penalty, a the mentalist cannot use this telepathic aspect of Mind Scan to read a target's mind once he establishes a lock-on.

The GM should impose significant penalties on the MCV Attack Roll if a character Mind Scans for someone who doesn't actually exist as he thinks he does. For example, suppose Brainstorm recently encountered Thunderbird in disguise as a drunken bum named Moe. He now wants to find "Moe," so he begins Mind Scanning for that person — but "Moe" doesn't exist the way Brainstorm thinks he does. Depending upon the specifics of the situation, the GM might impose a substantial penalty (-5 to -8, or more) on the MCV Attack Roll. If the mentalist succeeds despite the penalty, he locates Thunderbird's mind and realizes "Moe" is really Thunderbird. Alternately, the GM might rule that locating "Moe" with Mind Scan is impossible, no matter how well the mentalist character rolls or how much he narrows his search. Of course, failure to locate "Moe" may provide a clue as to "his" true nature....

At the GM's option, establishing a Mind Scan lock-on might give the mentalist some very general hints about the nature of the mind he's Scanning: "bestial," for example, or "vicious," "totally inhuman," "extremely strong," and so forth.

The GM may want to consider restricting the amount of power that can be used through a Mind Scan lock-on. The restriction would depend on how powerful the lock-on is: a mentalist can only achieve an effect with a Mental Power used through a Mind Scan lock-on equal to or less than the effect of the Mind Scan roll. Thus, if a mentalist establishes a Mind Scan lock-on at the +20 level, any continuing-effect Mental Powers used to attack the target through that Mind Scan are limited to a +20 level of effect maximum.

MULTIFORM

Here's some additional information about and rules for Multiform.

PERKS

Vehicles And Bases: A character with Multiform might belongs to a group whose members contribute Character Points to pay for a Vehicle or Base. Every form that wants access to the Vehicle/Base has to pay its fair share of the cost; one form can't pay the points and then the other forms have use of the Perk. Different forms may pay different amounts with the GM's permission. However, the character's single contribution to the Vehicle/Base (see below) equals the *lowest* amount paid by any of his forms. (Therefore there's usually no reason for all forms' contribution not to be the same amount.) The contribution of all forms only counts once, not multiple times — the other forms' paying their fair share of the cost doesn't increase the amount of points the resource is built with, it simply "confirms" the base form's contribution and allows them standard access to it, so to speak. For example, if Multiform Man has three forms and each contributes 10 points to a Base, Multiform Man has contributed 10 points to the Base, not 30.

If each form has bought a Vehicle/Base (or whatever), each form has the Vehicle/Base it bought. The Vehicle/Base doesn't change form, it's just that each form gets what it paid for. If a character wants the special effect of this to be "I have a Vehicle that changes forms when I do," there's nothing in the rules to prevent that as long as the GM doesn't object.

POWERS

Adjustment Powers: If an attacker Drains or Suppresses a character's Multiform power, apply the effects of the Adjustment Power as evenly as possible to reduce the Multiform power in a logical and reasonable manner (keeping special effects, common sense, and dramatic sense in mind, of course). In some cases, simply removing the ability to change into one or more particular forms may make sense (if so, the GM randomly determines which forms the character loses). In others, it may make more sense to apply the Adjustment Power to the total cost of each form — for example, if the Adjustment Power removes 20 points of effect, reduce each form by 20 points, figuring out in a reasonable manner which powers or abilities each form loses.

If a character is already in an alternate form and the ability to change into that one form is removed, the character spontaneously reverts to his true form. If the entire Multiform power is removed, it locks the character into that alternate form until the Adjustment Power's effects fade. Since the alternate form doesn't pay for Multiform himself, the GM must look at the true form's character sheet to determine the cost of the power.

If a character has an Adjustment Power that boosts or improves his Multiform power (such as Absorption or Aid), it works like any other positive Adjustment Power — it adds points directly to the Multiform. Since Multiform works by having every point spent on it count as 5 points for purposes of building the alternate form, that means every point added likewise increases the points available to build the alternate form with by 5. Obviously, this could quickly become abusive; most GMs probably would not allow it.

Unlike damage or similar negative effects, which carry over from form to form as the character changes shape, the effects of a positive Adjustment Power do not carry over from form to form when a character uses Multiform. However, if the character changes back to the "boosted" form before the Adjustment Powers effects have faded, the "boost" remains in effect.

ADVANTAGES

Variable Special Effects: A character cannot take Variable Special Effects on Multiform to change the appearance (but not abilities) of his forms from use to use. If he wants to change shape or appearance, he should buy Shape Shift or a similar Power for his various forms.

LIMITATIONS

Personality Loss: The *Personality Loss* Limitation presented above describes one of the classic shapechanging dilemmas in adventure fiction: the possibility of losing one's personality, one's *self,* to whatever one changes into. This is particularly common for some types of wizards and lycanthropes, but it could occur in any Multiform where the alternate form has a radically different personality than the true form. For games where the GM wants to make greater use of Personality Loss, here's an optional expanded version. The accompanying table lists the values of the various aspects of the Limitation. Standard rules for Personality Loss apply unless indicated otherwise below.

The base value of Personality Loss depends on the *Time Before Change* — the amount of time the character can spend in his alternate form before he runs the risk of assuming its mentality. At the end of that time, the *Change Happens* aspect of the Limitation takes effect. Either he automatically loses his personality (and ability to change back) to that of the alternate form, or he has to make a roll. If it's a Required Roll, it starts at 14-. He must succeed with the roll to retain his normal personality and the ability to change back to his true form. For every step down the Time Chart thereafter, the roll decreases by 1 (to 13-, 12-, and so on). If the character ever fails the roll, he's trapped in his current form and assumes its personality in place of his own; thereafter he can only recover his true personality and form with outside help. (Alternately, the character's Required Roll may start at 11- and decrease from there for a greater Limitation value.) If the roll is an EGO Roll, it

doesn't decrease over time, but the character still has to make the roll at each step down the Time Chart; like any EGO Roll, Psychological Complications and similar circumstances may modify it.

Two other factors modify the value of Personality Loss. The first is the *Speed Of Change* — how quickly the character loses his personality. The default is that it happens instantly: as soon as he fails that roll or passes that time limit, he's trapped in his alternate form. However, for forms of Personality Loss with a Strong or Total change, the change might be *Gradual.* When the character first passes the time limit or fails a roll, he suffers a Slight change (see below). The next passage of time or failed roll increases that to a Strong change; the one after that, to a Total change (unless restricted to Strong).

The second is the *Extent Of Change.* The default for the Limitation is that a total change takes place: the character's personality shifts entirely over to that of the alternate form all at once. But the character can restrict the extent of his Personality Loss to either *Strong* or *Slight* loss for a lesser Limitation value. A *Slight* change affects the character's day to day life, but not life or death matters. For example, he might crave foods associated with their form, have a change in temperament to resemble the alternate form (*e.g.,* become more animalistic or bestial if the alternate form is a wolf), adopt the alternate form's likes, dislikes, and mental Complications, and so forth. A *Strong* change affects all aspects of a character's life. All the Slight changes occur, and in addition the character may suffer -2 or greater penalties to Skill Rolls as his learned and trained abilities become "fuzzy" and his memories fade. The character also probably prefers the company of others of his "own" kind to that of other people.

Once a character suffers a Personality Loss, whether it's Total, Strong, or Slight, he loses the ability to change from his current alternate form to his true form or another alternate form. Until someone finds a way to counteract or correct the loss of "self," the character's trapped in his alternate form — he doesn't *want* to change back, he thinks of his current state as his proper "self."

As noted in the standard Personality Loss rules, remaining in true form for 1 Day "resets" the Required Roll to 14- (or 11- if the character has chosen that version) or otherwise cancels the effects of losing one's personality. The GM may alter this slightly if preferred. For example, after a character loses his personality, maybe eight hours in his true form reduces the loss from Total to Strong, then another eight hours from Strong to Slight, and a final eight hours from Slight to no loss at all. Or perhaps the lost personality comes back over days or weeks instead of hours.

EXPANDED PERSONALITY LOSS TABLE

Time Before Change	Value
Instant	-2
1 Turn	-1½
1 Minute	-1¼
5 Minutes	-1
20 Minutes	-¾
1 Hour	-½
6 Hours	-¼
1 Day	-0
1 Week	+¼
1 Month	+½

Change Happens	Modifier
EGO Roll	0 more Limitation
Required Roll (14-)	¼ more Limitation
Required Roll (11-)	½ more Limitation
Automatic	1 more Limitation
Speed Of Change	Modifier
Instant	0 more Limitation
Gradual	½ less Limitation
Extent Of Change	Modifier
Total	0 more Limitation
Strong	¼ less Limitation
Slight	½ less Limitation

The minimum value of Personality Loss is -0; it cannot become an Advantage.

PIERCING

Piercing is a new optional new Power that some GMs allow in some campaigns.

PIERCING

Type: Attack Power/Special Power
Duration: Special (see text)
Target: Special (see text)
Range: Special (see text)
Costs END: Special (see text)
Cost: See Piercing Table

Piercing allows characters to more precisely differentiate attacks by giving them the ability to reduce the target's defenses before damage is applied. Some examples specially-designed armor-piercing bullets, a fire bolt that's particularly good at cutting through a target's defenses, or a Mental Blast against which Mental Defense offers little protection. The cost for Piercing depends on the type of defenses the attack reduces, as indicated in the accompanying table.

The Duration, Range, and Target of Piercing depend on the Power for which points of Piercing are bought. For example, they're Instant and affect a single target if applied to a typical Blast, Constant and cover an Area if bought for Change Environment with Area Of Effect. Piercing costs END to use (in other words, the END cost of a Power with Piercing points is calculated from the power's Active Points plus the Active Points of the Piercing points).

To use Piercing, a character must buy points of it for use with a specific attack or weapon; Piercing doesn't function on its own, and cannot be bought to affect more than one attack or weapon. The number of Piercing points purchased directly reduce the total applicable defense on a one-for-one basis before the attack's damage is applied. For example, if a gun fires a bullet bought as an RKA 1d6 with 2 Piercing points, the target's total Resistant PD applied against the BODY damage (and total defenses applied to reduce the STUN damage) is reduced by 2. A Piercing point affects both Physical and Energy defenses, if appropriate.

Because Piercing is bought for a specific attack or weapon, the Advantages and Limitations taken for that attack or weapon apply to Piercing as well. The Piercing points increase the cost of the base power before Advantages are applied.

Example: *Firefight is building a new gun exclusively for firing a special type of APHC (armor piercing hardcore) ammunition. He decides he wants an RKA 2d6 with 1 point of Piercing (Resistant). That gives him a base cost of 33 points, to which he applies the* Armor Piercing *Advantage and various Limitations. Here's what he ends up with:*

RKA 2d6, 1 point of Piercing (Resistant), Armor Piercing (+¼) (41 Active Points); OAF (-1), Beam (-¼), Real Weapon (-¼), STR Minimum (11; -½), 12 Charges (-¼). Total cost: 13 points.

If this Power didn't have Charges, it would cost Firefight 4 END per shot to use.

PIERCING TABLE

Defense Pierced	Cost
Normal Defenses	2 Character Points per point of defense removed
Resistant Defenses	3 Character Points per point of defense removed
Mental Defense	3 Character Points per point of defense removed
Power Defense	3 Character Points per point of defense removed
Flash Defense	3 Character Points per point of defense removed

ADVANTAGES

Armor Piercing: If an attack that has Piercing points is also Armor Piercing, subtract the Piercing points first, before the reduction of defenses caused by AP.

REFLECTION

The standard rules for Reflection specify that it can't be used with Deflection — in other words, with Ranged attacks that are Blocked at Range. However, in some powerful or free-wheeling campaigns, the GM may choose to permit this. In that case, to Reflect attacks at Range the character must buy the *Ranged* (+½) Advantage for his Reflection (though he's still allowed to Reflect attacks aimed directly at him).

The standard rules for Reflection specify that applying Variable Advantages or Variable Special Effects doesn't allow a character to change the Advantages on or special effects of a Reflected attack. Again, for some powerful or free-wheeling campaigns, the GM may choose to permit this anyway. For example, a magical incantation of Spell Reversal might allow one wizard to turn another wizard's spell back on his foe, using his own magic to alter it in the process to make it even deadlier. This should be considered a "Caution Sign" ability.

Hardened and Impenetrable have no application with Reflection. Neither AP nor Penetrating has any effect on a character's ability to Reflect a Ranged attack.

REFLECTING MENTAL ATTACKS

Characters ordinarily cannot use Reflection on Mental Powers, since Reflection derives from the rules for Blocking Ranged attacks, and those rules specifically prohibit the Blocking of Mental attacks (see 6E2 59). However, in some campaigns, particularly those that feature a lot of Mental powers and attacks, the GM could permit characters to buy *Mental Reflection.* Mental Reflection costs the same as ordinary Reflection, but only works against Mental Powers and attacks. It uses OMCV versus OMCV, rather than OCV versus OCV as usual for Block; standard modifiers to OCV (such as the Range Modifier) do not apply unless they normally apply to Mental abilities. Other rules for Reflection apply normally, unless the GM changes them based on the way Mental powers work in his campaign.

ONLY WORKS AGAINST [LIMITED TYPE OF ATTACK]

Characters often apply the *Only Works Against [Limited Type Of Attack]* Limitation (6E1 148) to Reflection even though it's not a Defense Power. For example, a character with Fire powers might be able to Reflect attacks involving flames or heat, but not other types of attacks. Some common forms of this Limitation for Reflection include:

- Only Works Against Thrown Objects/ Weapons (-¾)
- Only Works Against Non-Gunpowder Projectiles (arrows, sling stones, thrown objects/ weapons, and the like; -½)
- Only Works Against Physical Projectiles (e.*g.,* bullets, arrows, thrown weapons, or shrapnel, but not energy beams; -¼)
- Only Works Against Bullets (but no other type of Ranged attack; -½) (you can change "Bullets" to any other common specific form of Ranged attack for the same value, or more/less common forms for a lesser/greater Limitation value)
- Only Works Against Energy Beams (but no physical projectiles; -½)

As usual, these values are for the "typical" campaign; the GM has the final say on the value based on how common a type of attack is. For example, in some Fantasy campaigns arrows may be common enough to only merit a -¼ Limitation.

REGENERATION

The following additional rules are options the GM can consider for Regeneration.

FASTER REGENERATION ⚠

At the GM's option, characters can buy Regeneration to work even faster than once per Turn by extending the Regeneration Table. To Recover 1 REC worth of BODY per Phase costs 18 Character Points; to Recover 1 REC worth of BODY per Segment costs 20 Character Points.

If a character has SPD 12, he only has to buy the per-Phase rate to get Regeneration that works each Segment. He doesn't have to pay for per-Segment even though that's effectively what he's getting; he's already paid the high cost for raising his SPD.

REGENERATING OTHER CHARACTERISTICS ⚠

At the GM's option, characters can buy Regeneration for Characteristics other than BODY, at the same cost. This is typically done for STUN and END for Regeneration bought to very fast rates (such as per Phase or per Segment); otherwise it's less efficient than simply buying more REC. But characters can buy Regeneration for other Characteristics if they want, to ensure they regain Drained points quickly.

Also at the GM's option, characters can make their Regeneration apply to multiple Characteristics at a time by buying the Advantage *Multiple Regeneration.* To apply an Adjustment Power to any two Characteristics simultaneously is a +½ Advantage. Each additional Characteristic that can be affected simultaneously is an additional +½ Advantage. Thus, affecting three at once is a +1 total Advantage, four is +1½, 5 is +2, eight is +3½, and so on. The character must define which Characteristics he Regenerates when he buys Multiple Regeneration, and cannot change them thereafter.

Also at the GM's option, characters can apply the *Variable Effect* (+½) Advantage (6E1 142) to Regeneration, including Multiple Regeneration.

REGENERATION FOR POWERS

At the GM's option, a character can define his Regeneration as working for a Power rather than a Characteristic (or even for a Skill, Talent, or Perk). In this case the Power regains the character's REC in Active Points per defined time period. Since this is generally only useful for counteracting Drains and the like, it makes sense primarily for Regeneration that works on a per-Turn or shorter timeframe.

RESISTANT PROTECTION

Resistant Protection isn't necessarily impermeable to liquids, gases, or the like. Resistant Protection is a Defense Power, and thus provides protection against things that damage or injure the character. If a liquid is defined as a form of attack, or a dangerous substance that could inflict injury, then the Resistant Protection's defense applies to reduce or eliminate the damage it causes. Whether it literally prevents the liquid from contacting the character depends on the special effects of the Resistant Protection and the circumstances. For instance, if a character's Resistant Protection is defined as "a screen of energy surrounding the character's body," the Resistant Protection might only prevent contact if it counteracts all damage the liquid would do — otherwise some "gets through" and hurts the character somehow. On the other hand, if the Resistant Protection is defined as "the character has super-tough skin," then it's definitely not going to prevent the liquid from contacting the character — but it may prevent the liquid from hurting him when it contacts him. The same rationale applies to picking up dangerous objects, like a red-hot piece of metal. As for non-damaging substances, such as ordinary rainfall, whether a Resistant Protection can prevent them from touching the character depends on special effects, the circumstances, and the GM's judgment. Since that has no real game effect at all, most GMs probably won't care if a player wants to define his character's Resistant Protection as keeping him dry in the rain.

SHAPE SHIFT

Here are some additional rules and guidelines for Shape Shift.

SIMPLIFIED SHAPE SHIFT

For some games, a more simplified form of Shape Shift may be appropriate. This type of Shape Shift allows a character to change his form — the way he looks, feels, sounds, smells, and so forth — but not change his powers, Characteristics, or the like. It affects all Sense Groups, as appropriate, unless the GM rules otherwise (for example, in many campaigns it can't affect a character's mind, so Mental Group Senses would still perceive the character's real mind).

Simplified Shape Shift costs 10 Character Points for the ability to shift shape into a single alternate form, defined when the character purchases the power. For +5 Character Points, the character can shift shape into up to four forms, defined when the character purchases the power. For +5 Character Points (a total cost of 20 points), the character can shift shape into any form. In all cases, forms must be no more than +/-10% of the character's height and mass. Characters can buy the Adders and Advantages for regular Shape Shift, such as Cellular and Imitation, for simplified Shape Shift unless the GM rules otherwise.

MENTAL SHAPE SHIFTING

To use the *Imitation* Adder with Mental Group Shape Shift, a mentalist must have previously achieved an EGO +20 Telepathy effect on the subject to be imitated and spent at least 5 Minutes exploring his psyche. If he spends less time than that, or if he hasn't had that level of quality of mental contact with the subject (for example he's only Mind Linked with him), the GM may give other characters a PER Roll, perhaps with a bonus, to see through the psychomorphic disguise.

Example: *Menton buys Shape Shift (Mental Group). He Shifts his mind's Shape to that of an ordinary construction worker. If someone uses Mind Scan or Detect Minds to try to find him, they won't perceive him, they'll perceive an ordinary construction worker. If someone uses Telepathy on him, at the surface thoughts level his thoughts appear to be the appropriate thoughts of an ordinary construction worker, according to the circumstances. Telepathy that reads more deeply than that perceives Menton's true mind. If he later buys the* Imitation *Adder, he could make his thoughts look like, for example, Defender's or Professor Ben E. Scott's — assuming he's previously had sufficient mental contact with them to know what their thoughts "look like."*

ADDERS

Deep Mental Shift: This +5 Character Points Adder allows a Mental Group Shape Shift to affect all levels of the character's mind, not just his surface thoughts. Someone using Telepathy to scan his hidden thoughts, memories, or subconscious still "sees" the change. The character's Psychological Complications and other mental Complications do not actually change, but to a character using Telepathy they seem to have changed.

DETAILED SHRINKING TABLE

Points of Shrinking	Height	Mass	PER Rolls Against	DCV	KB
0	2m	100 kg	0	+0	+0m
3	1.9-1.5 m	99-56.25 kg	-1	+1	+3m
6	1.4-1 m	56.24-12.5 kg	-2	+2	+6m
9	.9-.75 m	12.4-7.05 kg	-3	+3	+9m
12	.74-.5 m	7.04-1.6 kg	-4	+4	+12m
15	.4-.375 m	1.5-0.9 kg	-5	+5	+15m
18	.374-.25 m	.8-.2 kg	-6	+6	+18m
21	.24-.187 m	.19-.11 kg	-7	+7	+21m
24	.186-.125 m	.10-.025 kg	-8	+8	+24m
27	.124-.09 m	.024-.014 kg	-9	+9	+27m
30	.08-.064 m	.013-.0032 kg	-10	+10	+30m
33	.063-.048 m	.0031-.0018 kg	-11	+11	+33m
36	.047-.032 m	.0017-.0004 kg	-12	+12	+36m
39	.031-.024 m	.00022 kg	-13	+13	+39m
42	.023-.016 m	.00005 kg	-14	+14	+42m
45	.015-.012 m	.00003 kg	-15	+15	+45m
48	.011-.008 m	.0000064 kg	-16	+16	+48m
51	.007-.006 m	.000004 kg	-17	+17	+51m
54	.005-.004 m	.0000008 kg	-18	+18	+54m
57	.0039-.003 m	.0000004 kg	-19	+19	+57m
60	.0029-.002 m	100 nanograms	-20	+20	+60m

SHRINKING

Some characters or campaigns may need more information about Shrinking. The two accompanying tables increase the options available to characters who want to increase their density at will.

First, the Expanded Shrinking Table carries the standard table out to much higher levels. Buying *Small* Size Templates for sizes below "Insectile" is easy — the Template for each additional halving of height costs +14 Character Points.

Second, the Detailed Shrinking Table provides greater "granularity" for Shrinking by allowing characters to buy it in 3-point increments. For each +3 Character Points between the standard Shrinking cost breakpoints, the character gets another -1 to other characters' PER Rolls, +1 DCV, and +3m of Knockback.

EXPANDED SHRINKING TABLE

Points of Shrinking	Height (meters)	Height (other)	Mass	PER Rolls Against	DCV	KB	Example
0	2 m	200 cm (6 feet)	100 kg	0	+0	+0m	Normal human size
6	1.9-1 m	100 cm (3 feet	99-12.5 kg	-2	+2	+6m	Human child, halfling
12	.9-.5 m	50 cm (20 inches)	12.4-1.6 kg	-4	+4	+12m	Housecat, small dog
18	.4-.25 m	25 cm (1 foot)	1.5-.2 kg	-6	+6	+18m	Average rat or frog
24	.24-.125 m	12.5 cm (.5 foot)	.19-.025 kg	-8	+8	+24m	Dragonfly
30	.124-.064 m	6.4 cm	.024-.0032 kg	-10	+10	+30m	Average mouse or shrew
36	.063-.032 m	3.2 cm (1 inch)	.0031-.0004 kg	-12	+12	+36m	American cockroach, small shrew
42	.031-.016 m	1.6 cm (.5 inch)	.00005 kg	-14	+14	+42m	Wasp, diameter of a penny
48	.015-.008 m	8 millimeters	.0000064 kg	-16	+16	+48m	Ant, housefly
54	.007-.004 m	4 millimeters (.5 cm)	.0000008 kg	-18	+18	+54m	
60	.003-.002 m	2 millimeters	100 nanograms	-20	+20	+60m	Head of a pin
66	.00199-.001 m	1 millimeter (mm)	12.5 nanograms	-22	+22	+66m	
72	.0099-.0005 m	.5 millimeters	1.6 nanograms	-24	+24	+72m	
78	.0004-.00025 m	250 micrometers	.2 nanograms	-26	+26	+78m	
84	.00024-.000125 m	125 micrometers	25 picograms	-28	+28	+84m	Plant cell, human unaided viewing limit, width of an artery
90	.000124-.000064 m	64 micrometers	3 picograms	-30	+30	+90m	Width of an average human hair
96	.000063-.000032 m	32 micrometers	400 femtograms	-32	+32	+96m	
102	.000031-.000016 m	16 micrometers	50 femtograms	-34	+34	+102m	Width of an animal cell, length of a salt grain
108	.000015-.000008 m	8 micrometers	6 femtograms	-36	+36	+108m	
114	.000007-.000004 m	4 micrometers	800 attograms	-38	+38	+114m	Width of shag-carpet fiber
120	.000003-.000002 m	2 micrometers	100 attograms	-40	+40	+120m	
126	.000001 m	1 micrometer (µm)	12.5 attograms	-42	+42	+126m	Width of a bacterium, 1 micron
132	.0000005 m	500 nanometers	1.6 attograms	-44	+44	+132m	Viewing limit of a light microscope
138	.00000025 m	250 nanometers	.2 attograms	-46	+46	+138m	Width of an average virus
144	.000000125 m	125 nanometers	25 zeptograms	-48	+48	+144m	Width of a nanomachine
150	.000000064 m	64 nanometers	3 zeptograms	-50	+50	+150m	Width of a small molecule
156	.000000032 m	32 nanometers	400 yoctograms	-52	+52	+156m	
162	.000000016 m	16 nanometers	50 yoctograms	-54	+54	+162m	Viewing limit of an electron microscope, the smallest viri
168	.000000008 m	8 nanometers	6 yoctograms	-56	+56	+168m	
174	.000000004 m	4 nanometers	Negligible	-58	+58	+174m	
180	.000000002 m	2 nanometers	Negligible	-60	+60	+180m	
186	.000000001 m	1 nanometer (nm)	Negligible	-62	+62	+186m	

SKILLS

Skills are relatively inexpensive compared to most Powers (even when bought to have high Skill Rolls). Therefore it can be unbalancingly effective if characters Adjust them or put them in Power Frameworks (assuming the GM permits this, since doing either is illegal under the standard *HERO System* rules). To compensate for this problem, the GM can assign Skills as Powers a "phantom value" that's used for determining how they're affected by Adjustment Powers, fit into Frameworks, and the like. Some possible ways to do this include:

- Multiply each Active Point in the Skill by some amount (such as 2, 3, or 5) to determine the phantom value. For example, if the multiplier is x3, then if a character spent 20 Active Points to buy a Skill as a Power, it would have "60 Active Points" for Adjustment Power purposes. An enemy who Drained 10 points from it would reduce it to ((60 - 10) / 3 =) 17 Active Points' worth of effect.
- Assume each point in a Skill Roll is worth X Active Points. The GM determines X based on how valuable he thinks Skills are in relation to other Powers. For example, if the GM thinks a 15- roll is equivalent to a 60 Active Point power, then X = 4 (so that 4 x 15 = 60 "Active Points"). If he thinks it takes a 20- roll to equal a 60 Active Point power, then X = 3.
- The GM sets a flat cost for a certain amount of Skill, and then a flat cost for each additional point of the roll or added effectiveness. For example, a roll of 11- with any Skill might be worth "20 Active Points" as a phantom value. Each additional +1 is worth +5 "Active Points." If the character adds functionality (such as buying more animal groups for Animal Handler), those additions are worth the Active Points spent on them x5.

Of course, the value of a Skill-as-Power can vary tremendously from campaign to campaign. In a Superheroes game or some High Fantasy campaigns, characters have such easy access to Desolidification that no amount of Lockpicking or Contortionist may be worth very much. On the other hand, in a Cyberpunk setting, a "skill chip" with the latest Computer Programming techniques or KS: America's Top Military Secrets may be one of the most useful things a character can have.

STRETCHING

Since Stretching isn't a Persistent Power, if a character's Stunned or Knocked Out while Stretched, the GM has to determine what happens. The easiest option is that his body "retracts" to its normal length and shape at the end of the Segment. But a more fun option is this: he remains Stretched but doesn't have to pay END until he recovers from being Stunned or awakens. This may expose him to various perils — such as waking up to find himself tied around a lamppost.

A character with Stretching can probably Stretch his neck (and thus his head) around a corner to perceive things, but he can't Stretch individual sensory organs such as just his eyes or just his ears. If he wants the ability to do that, he can buy it as a "Stretching trick" using a Limited form of Clairsentience, or perhaps the *Adjacent* Sense Modifier.

The GM has to determine what happens if a character using Stretching is "cut off" from the area he's Stretched into (for example, because someone closed a door). Generally in that situation, whether the Stretching has the *Does Not Cross Intervening Space* Advantage or not, the character maintains control of whatever parts of his limbs aren't restrained. Regardless, a character cannot exceed his maximum meters of Stretching. If he has, say, Stretching 12m and reaches into a vault with it, he can't Stretch any further once his arm is trapped by the shutting of the vault door. (And he may even take some damage from having the door crush his limb.) If he'd only Stretched 10m, he'd have 2m of Stretching left to use. Furthermore, the character can't get his arm out of the vault door by turning off his Stretching (any more than a character can escape from a Grab by "turning off" a limb or his STR). He's got to pay END to maintain the Stretching until he can free himself or passes out (in which case see above).

If a character with Stretching attempts to Haymaker with his punch, and the target moves while he's "winding up," he still misses even if the target's move is less than his meters of Stretching.

If a character uses Stretching to attack a target that's more than 1m away from him (*i.e.,* beyond normal HTH Combat range) in HTH Combat, the target can counterattack him normally, hitting the Stretched part of the body using a standard Attack Roll and doing generalized damage. If he wants to perform some sort of attack that has to target the Stretched limb specifically (such as a Disable), he suffers the standard Hit Location and damage modifiers for attacking that limb. Anyone else along the length of the Stretched limb can attack that limb, but suffers the standard Hit Location and damage modifiers for doing so (this assumes it crosses the intervening space, as usual; if not, the limb can only be attacked at points where it enters ordinary space).

Areas a character can only reach by Stretching are considered "at range" for purposes of that character making Area Of Effect attacks (and thus are DCV 3, not DCV 0 "adjacent areas").

SWIMMING

A character with Swimming can "breach" the water by Swimming straight up toward the surface so that his momentum carries him up out of the water as if he were "leaping." He can "leap" upward out of the water a distance equal to half the meters of Swimming he used in his previous Phase, provided in his previous Phase he swum straight up toward the surface with the intention of breaching. (Of course, since he Swam straight up, the number of meters used is affected by gravity, as discussed on 6E2 25, and that affects breaching. For example, a character who uses Swimming 40m to breach only moves 20m upward, so he only breaches for 20m.) With the GM's permission a character can make a Full Move by combining a Half Move of Swimming and a Half Move of Breaching into one Full Phase Action.

SWINGING

The GM determines the direction of a swing based on the situation, the point to which the character attaches his swingline, and other factors. Typically a swing takes place in a straight line, and the character cannot change direction once he begins the swing (he cannot, for example, swing around corners, though the GM might allow minor shifts in direction based on body motion and the like). However, the GM may allow characters to swing in arcs in some circumstances. For example, if a character attaches his swingline to the corner of a building, he might be able to swing in an arc around the corner of the building. In this case, Swinging has the standard Turn Mode (see 6E2 28-29), unless the GM rules otherwise. The character should describe the arc of his swing to the GM before making it so the GM can approve it, and cannot change it once he begins the swing unless the GM permits him to.

GENERAL RULES

Here are a few general rules that help to explain how Swinging works and some of its ramifications. These rules are optional, and generally appropriate for the more "realistic" views or uses of Swinging (see below); in many campaigns GMs will ignore them entirely.

THE SWING ARC

Swinging typically carries a character in an arc, which means the character has to be a certain minimum distance above the ground or else his Swinging will really be "falling." This distance equals half the meters of Swinging the character uses (standard rounding rules apply). For example, if the character Swings 40m, he's got to be at least 20m above the ground or he'll collide with it, taking damage as if he fell. For multiple-Phase Swings, the arc distance equals half the *total* distance Swung, from launching point to landing point.

For non-standard Swings, such as a character who attaches a swingline to a telephone pole so he can Swing horizontally around it, the GM should adapt these rules as he sees fit to determine if the character collides with some object.

ATTACKING THE SWINGLINE

In some cases, it's possible to make trouble for a Swinging character by attacking his swingline. Typically a swingline has a DCV equal to that of the character using it, and the attacker also suffers a Target Size OCV penalty of -6 or more. If the swingline is a Focus or a Physical Manifestation, it has the standard PD, ED, and BODY specified for those Limitations. If it's neither — for example, if it's a strand of energy the character generates — then it cannot be damaged so attacking it is probably useless. However, even in that case just hitting the swingline may throw the Swinging character off course (or require him to succeed with a DEX Roll to remain on course).

BREAKING A SWINGLINE

In some games, particularly "realistic" ones or ones using the Real World Swinging guidelines (see below), the question of the breakability of swinglines may arise. The rules assume that a character's swingline is fully capable of supporting him under ordinary conditions. But what if it becomes frayed or damaged? What if he carries a passenger or burden? Here are some rules to resolve this situation; they presume, of course, that the swingline is a Focus or Physical Manifestation, otherwise it won't break at all.

First, determine the swingline's PD, ED, and BODY. Second, determine the swingline's "Strength." At a base level, a swingline has a STR equal to twice the STR needed to lift the character (thus, 20 STR in most cases). A character may increase the STR of his swingline with a special Adder, *Stronger Swingline:* for each +1 Character Point, the swingline has +5 STR.

As long as the combined weight of the character and anything he carries doesn't exceed the weight limit of the swingline's STR, there's no chance of the swingline breaking (assuming it's in good condition; see below). If the swingline carries more weight than that, figure out how much STR it would take to lift the "extra" weight, and use that STR to do Normal Damage (BODY only, of course) to the swingline. The GM may increase the "STR" used to calculate damage if appropriate (for example, during multiple-Phase Swings that especially stress the swingline). When enough BODY damage gets past the swingline's PD to reduce its BODY to 0, the swingline breaks.

If a swingline is in bad condition, this should be reflected by reducing its BODY. That represents the damage, wear and tear, and fraying it's experienced. The reduced BODY means it's more likely the swingline will snap if it takes damage. If the character uses his swingline under less than optimal conditions — for example, if it rubs against a sharp edge while in use — the GM can convert the Normal Damage from STR into the equivalent DCs of Killing Damage.

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EXAMPLE SWINGLINES

A non-exclusive list of swinglines characters might use include:

- Cord tied to a boomerang or other throwing weapon that also serves as a grapnel
- Energy strands the character creates
- Linegun or ropethrower
- Long, finely-made, flexible chains
- Nylon wire stored on a secret reel inside a walking cane
- Rope and grapnel
- Spider webs the character can generate (either by himself or via a device)
- Super-tech expandable cord concealed in a belt buckle
- Vines (and other "environmental swinglines")

KNOCKBACK

If a character is hit by an attack while in mid-Swing, he's considered to be "in the air," so you roll one less d6 for Knockback.

REAL WORLD SWINGING

Like Running and Swimming, Swinging is a movement mode which mimics a real-world form of movement, but many hard-core details are omitted to reflect the dramatic reality of most games and game settings. Since the Power is less restrictive than reality, you can use campaign ground rules (or perhaps Limitations) to customize it to make it more "realistic," if desired. There are three styles of Swinging: Real World Swinging, which mirrors the real world closely; Heroic Swinging, which shares some of the restrictions of Real World Swinging, but is looser and more suited to a Heroic level action-adventure; and finally Superheroic Swinging, which has very few game mechanics, and is suited for a four color game.

Here's how Swinging might "realistically" work.

THE SWINGLINE

First, you would need some kind of swingline or rope, with the following characteristics: compact, lightweight, flexible, slightly elastic, long enough to carry you a significant distance, and strong enough to hold your weight (if not more). If you've ever carried a coil of rope around before, you realize that you've already entered the realm of fantasy just looking for this ideal swingline.

At one end of the swingline, you need some sort of grappling hook or device with the following features: lightweight and compact enough to carry around; heavy enough to reach the building ledge or pivot point when propelled through the air; it clings, hooks, or otherwise fastens securely to almost any type of surface with few (if any) re-try attempts; it unhooks or releases reliably when necessary. At the other end of the swingline, you need a securely connected handle or grip so you don't cut your hands to ribbons when you put your full weight on the line. The grip must be such that it doesn't slip out of your hands in mid-Swing. In addition, you need a way to store the swingline so you don't tangle yourself up with it before you're ready to use it, a way to reel in the swingline after the Swing so you don't spend a long time putting the line away, and a method of propelling the grappling hook toward the pivot point so it catches on reliably.

Not all swinglines need to fit all the above criteria (which is a good thing, because realistically, no swingline is anywhere near that good). If the swingline is disposable, the character doesn't need to worry about post-Swing retraction, although now storage and reliability of multiple swinglines become a greater issue (as does the possibility of enemies gathering information from the leftover swinglines via forensic analysis). Perhaps the environment is already full of potential swinglines, like the vines in a jungle, and the Swinging character just comes along and borrows them to travel to the next tree.

A character using Real-World Swinging typically has an amount of swingline equal to four times his meters of Swinging, and can increase that amount by x2 for every +5 Character Points spent on Swinging. However, the final decision is up to the GM based on special effects, the campaign setting and tone, game balance, and similar considerations.

FINDING THE PIVOT POINT

Once a character has an acceptable swingline, the next step is to find a *pivot point* to attach it to so he can Swing on it. The pivot point must have several qualities:

- it must be within range of the character's swingline
- it must be within range of whatever the character uses to propel the swingline
- it must be high enough off the ground so the character doesn't hit the ground while trying to Swing (see above)
- it must be sturdy enough to support the full weight of the character and swingline for the duration of the swing (if necessary, the GM can assign a PD and BODY to it, then assign the swingline/Swing a "Killing Attack" value to determine how badly they could damage it — typically 1 DC per 10m of Swinging works well)
- it must be of appropriate size for the swingline to attach to it, if the swingline includes a grappling hook or other object that might be restricted by size

In many cases, the pivot point will be obvious — in a city setting, for example, building ledges, flagpoles, and the like abound; in a forest there are plenty of tree limbs large enough to support a human-sized character. But in some cases, the GM may require the character to make a PER Roll (with appropriate modifiers) to find an appropriate pivot point. A character with Swinging can also make an INT Roll to judge whether a given pivot point meets the criteria set forth above, if he doesn't already know or it isn't obvious. Finding a pivot point is usually a Zero Phase Action, but may take up to a Full Phase if the character has to look hard.

Of course, it's conceivable that there are no good pivot points in the vicinity. For example, Swinging's rarely of much use in the desert, the Arctic wastes, or many other outdoor environments. In that case, the character's simply out of luck. And this is one restriction that carries over even to Superheroic Swinging.

ATTACHING AND DETACHING THE SWINGLINE

Having identified an acceptable pivot point, the character must attach his swingline to it. With Real-World Swinging, this takes a minimum of a Full Phase, and perhaps longer. The character must make an Attack Roll, to which the Range Modifier and Target Size penalties apply if appropriate, to attach the swingline to the pivot point.

This assumes, of course, that attachment is possible; in some cases what seems to be an acceptable pivot point won't be because the point and the swingline are incompatible.

After performing his swing, the character detaches the swingline from the pivot point (assuming that's possible). This takes a minimum of a Half Phase Action, and possibly a Full Phase or longer.

In some cases, characters have to (or try to) perform "hot swings," in which the swingline is detached and then attached to another pivot point, all in mid-Swing. This is tricky at best, and any complications are likely to result in a long and painful fall.

SWINGING ON THE SWINGLINE

With swingline attached (and presumably tested with a strong yank to make sure it won't come loose!), the character's now ready to Swing. Don't think about it and don't look down; either action's likely to cause the character to hesitate (at best) and cost himself more Phases, or abandon the idea of Swinging altogether as the sort of action only a fool who doesn't understand how to use a sidewalk would contemplate.

For a typical straight Swing, the character simply "falls" or lightly jumps off his starting point, and away he goes. But for a Swing where the character wants to arc around something or the like, he's going to have to jump to propel himself in the appropriate direction. The GM may require a DEX Roll so the character makes the arc he wants to make.

During the downward/outward arc the character feels a real strain on his wrists as he picks up speed (after all, he's largely engaging in a controlled fall). He reaches his maximum velocity just past the bottom/most outward point of the arc (though in game terms, Swinging uses the standard acceleration rules). On the upward arc he gains altitude to compensate for the altitude lost during the downward part of the arc. As he reaches his destination, he slows down.

Reaching the right destination isn't necessarily guaranteed. The GM may require an Attack Roll or DEX Roll for the character to land where he wants to land; after all, Swinging isn't an entirely controlled form of movement. The GM may require a separate roll, such as a DEX Roll or STR Roll, for the character to remain on the surface after landing; some surfaces are slippery or otherwise hard to hold onto.

Because Swinging involves so much exertion, the GM may require a character to pay END not only for Swinging itself, but for his STR.

HEROIC SWINGING

In Heroic (but not Superheroic) campaigns, characters typically don't worry about all of the possibilities for failure intrinsic in Real World Swinging — the rules are boiled down enough to keep things simple and flavorful.

THE SWINGLINE

In a Heroic campaign, you're enough into the realm of the cinematic and fantastic not to worry about things like the weight of the swingline (as discussed above under Real-World Swinging). Even if the setting itself doesn't provide appropriate technology (such as monofilament-woven rope in a Star Hero game, or an enchanted rope in a Fantasy Hero setting), "realistic" considerations as gritty as the weight of the line aren't appropriate for Heroic Swinging. However, the GM may still want to worry about the "grappling hook" end (*i.e.,* the mechanism of attachment to the pivot point), how the character propels his swingline to the pivot point, and how the character retracts his swingline. Use the rules from Realistic Swinging, above, but weaken or modify them as appropriate to Heroic games.

A character using Heroic Swinging typically has an amount of swingline equal to eight times his meters of Swinging, and can increase that amount by x2 for every +5 Character Points spent on Swinging. However, the final decision is up to the GM based on special effects, the campaign setting and tone, game balance, and similar considerations.

FINDING THE PIVOT POINT

With Heroic Swinging, it's assumed a character can easily find acceptable pivot points, if any are available at all. Heroic genre settings tend to be filled with flagpoles, lampposts, chandeliers, building ledges, tree limbs, candle sconces, torch holders, cranes, bridges, and all sorts of other objects that make useful, and often cinematically cool, pivot points. At most the character has to succeed with a PER Roll to locate one. Usually any pivot point he finds is strong enough to hold him (that's part of what he's looking for with the PER Roll), but if appropriate the GM can have him make an INT Roll to evaluate the point. Finding the pivot point is almost always a Zero Phase Action (at worst).

Heroic Swinging rarely causes any damage to the pivot point, but if the GM wants he can use the rules for Realistic Swinging to determine if the point breaks.

ATTACHING AND DETACHING THE SWINGLINE

With Heroic Swinging, characters rarely (if ever) have to make Attack Rolls to attach swinglines, and even when they do the Range Modifier and Target Size penalty usually don't apply. Detaching the swingline either occurs automatically at the end of the Swing, or must be performed next Phase as a Zero Phase Action. Thus, hot swings are much easier and safer... though still not safe.

SWINGING ON THE SWINGLINE

The actual act of Swinging is largely the same in the Real World and Heroic versions. However, Heroic characters usually don't have to make any sort of roll to land where they want to (landing safely on slippery surfaces is another matter). They also don't have to pay END for STR as well as Swinging itself; they're used to the exertion.

SUPERHEROIC SWINGING

Superheroic Swinging is a piece of cake. Characters don't have to make any rolls or pay any extra END to use Superheroic Swinging, don't have to worry about the weight or quality of their equipment (if they even need it — some can generate swinglines without the need for gear!), and rarely have trouble finding and using appropriate pivot points (when any are available at all — not even a Superheroic character can Swing in the barren desert). Swinging takes no additional time to use; a Half Move is a Half Phase Action, a Full Move a Full Phase Action, and the process of finding a pivot point and attaching/detaching the line is just a part of the overall Action.

A character using Superheroic Swinging typically has an amount of swingline equal to 16 times his meters of Swinging, and can increase that amount by x2 for every +5 Character Points spent on Swinging. However, the final decision is up to the GM based on special effects, the campaign setting and tone, game balance, and similar considerations.

ADDERS

Extra Swingline: In some games GMs will tell characters exactly how much swingline they have when they buy Swinging, and this Adder allows a character to buy more. See above for details.

Stronger Swingline: This Adder only applies in campaigns using the rules for breaking swinglines (see above). Every +1 Character Point gives a swingline +5 STR.

TELEKINESIS

Here are some additional, expanded, or optional rules for Telekinesis.

TELEKINETIC "ARMSPAN"

Telekinetic characters sometimes want to pick up an entire layer of soil from a field, or all of the water out of a pool, or something similar. Even if they have the STR to lift the object in question, ordinarily the GM shouldn't allow this. The "armspan" of a character's Telekinesis should be the same as his regular STR, *i.e.,* about the span of his arms. A telekinetic thus can pick up with his Telekinesis as much soil (or whatever) as he could encompass with his arms. If the character wants to use his Telekinesis over a broader area, he should buy the *Area Of Effect* Advantage for it.

However, the limited "span" of Telekinesis doesn't necessarily limit its uses to those that could be performed with the arms. Consider an automobile engine. A character with a normal armspan can spread his arms and reach across most of the engine. However, he can't stop the pistons from pumping or the belts from moving. A telekinetic, on the other hand, usually *can* stop the parts of the engine from moving (at least the visible parts). This is one of the many advantages Telekinesis has over ordinary STR.

Alternately, the GM can allow telekinetics to Spread their Telekinesis. For every 5 points of STR the character sacrifices, he may "spread" the reach of his Telekinesis by +2m. The reach of Telekinesis is assumed to be 2m at its base level, about the same as a person's armspan. However, characters should not be allowed to Spread their Telekinesis when they use it to "punch" targets.

The "telekinetic armspan" rules do not allow a character to pick up multiple people or differing objects by making a single Attack Roll — they don't grant any sort of Area Of Effect for free. They apply to attempts to pick up large masses of a specific type of object. As always, the GM has the final say on what a character can do with his Telekinesis based on special effects, game balance, common sense, dramatic sense, the circumstances, and other appropriate considerations.

PICKING UP MULTIPLE OBJECTS

A character can pick up multiple objects with Telekinesis to roughly the same extent that he could with his ordinary STR. Consider, for example, a pile of bricks (assuming all the bricks together don't weigh more than the character's telekinetic lifting capacity). If the bricks are neatly stacked on a pallet, the character can easily lift them all by lifting the pallet. If they're in a big, jumbled pile, he can pick up as many as he can "fit" in his telekinetic "armspan." The GM should make a final decision as to how a character can telekinetically lift a particular object, group of objects, or the like; obviously the specifics of a situation have a lot of impact on this issue.

DISASSEMBLING ITEMS

One classic telekinetic power is to take an object apart: remove all the nails from a table so it collapses, pull all the parts out of an electronic device, and so on. In *HERO System* terms this isn't done with Telekinesis *per se,* since that would require individually targeting and removing each part of an object. Instead this is the special effect of a "Telekinesis trick." Typically it's built using Dispel — whatever power(s) the object provides are Dispelled until it's put back together — but depending on the circumstances some other Power, such as Killing Attack, might be more appropriate.

LINE OF SIGHT

A character cannot Grab or Punch something with Telekinesis beyond his Line Of Sight. However, once he Grabs an object he can continue to manipulate it even if it passes out of his LOS. If he moves an object behind something he cannot see through, or if he moves it beyond the range of his eyesight, his hold on the object continues (though he may have difficulty knowing where to move it or what he can do with it, of course). Characters who want to have "sensory feedback" with their Telekinesis, so that they know what's happening near objects that they are telekinetically manipulating beyond their LOS, should Link the appropriate form of Clairsentience to their Telekinesis.

LIQUIDS, GASES, AND ENERGY

A character cannot ordinarily use Telekinesis to pick up liquids. He has to apply the *Affects Porous* Adder (see below) to do so. Affects Porous Telekinesis can affect gases, smokes, and mists, but only if it also has the Advantage *Area Of Effect.* This may grant Telekinesis some Dispel-like effects, since characters usually build gases and smokes with Powers (such as Change Environment, Darkness, and AVAD Blast). If the GM considers this abusive, he should disallow this use of Telekinesis, instead requiring characters to buy Dispel (and similar Powers).

Some telekinetics can actually use their power to affect forms of energy. Usually this is limited to a particular form of energy, such as a pyrokinetic's ability to move and shape masses of fire. Since energy is weightless, the STR of the Telekinesis reflects how much energy the character can pick up in other terms: 1 Damage Class worth of energy (usually Killing Damage) for every 5 points of telekinetic STR. This also provides a convenient method for determining the damage done to characters touched with the energy. Energy picked up with Telekinesis in this fashion is self-sustaining (it doesn't "burn out" or dissipate) until used to damage someone (which "extinguishes" it). When let go, the energy dissipates at once, unless it's placed on something it can "attach" itself to (*i.e.,* fire placed on something flammable, where it keeps burning until it exhausts the fuel; electricity placed into an electrical outlet or cable, and so forth).

Characters cannot use ordinary Telekinesis to pick up energy; doing so requires a specialized form of Telekinesis indicated by an appropriate Limitation, such as *Only Works On Fire* or *Only Works On Electricity.* Typically these are -1 Limitations, but the GM may adjust the value if necessary. A character with "energy Telekinesis" can also use it to crudely shape the energy he can hold (to, for example, create a fiery phoenix out of flame). On the other hand he loses most of the ordinary uses of Telekinesis, such as grabbing, throwing, or punching, since he can't affect physical objects.

MULTIPLE ATTACK

A character can Multiple Attack with his Telekinesis to Grab multiple targets, "punch" multiple targets, or the like. He must affect all targets the same way; he can't Grab some and "punch" others. Having Grabbed multiple targets, he has the following choices:

- he can affect them all the same way (for example, Squeeze all of them, Throw all of them, continue to hold on to all of them, or turn them all upside down). If he does this, he must pay the END cost for his Telekinesis every Phase he maintains it. If Attack Rolls or the like are required, the character must make one roll per victim he wants to affect, or use Multiple Attack again, but making these multiple Attack Rolls counts as a single Attack Action.
- choose to affect one of the Grabbed victims in whatever way the Grab rules or other rules allow and let all the other victims go. If he does this, he must pay the END cost for his Telekinesis every Phase he maintains it. At the GM's option, the character can affect two or more persons in some appropriate manner (such as smashing them into each other) by again Multiple Attacking with his Telekinesis against those persons while letting the others go (normal rules for Multiple Attack and END expenditure apply).
- choose to affect two or more Grabbed victims, up to all of them, in different ways — holding on to some while Throwing others, Squeezing some and Throwing others, turning some upside down and lifting others 8m into the air, or what have you. But to do this, he must pay the END cost for his Telekinesis o*nce per person or object affected* every Phase he maintains it. If Attack Rolls or the like are required, the character must make one roll per victim he wants to affect (but making these multiple Attack Rolls count as a single Attack Action).

Example: *Corporal Exeter of the Psi-Patrol has Telekinesis (40 STR — 60 Active Points) and uses it to Multiple Attack Grab six people. That costs him 6 END. In his next Phase, he decides he wants to keep holding on to them. Again, he pays 6 END to do this — he only pays for his Telekinesis once, since he's doing the same thing to every victim.*

In his next Phase, Exeter decides to Squeeze four victims and Throw two of them. He can do so, but must meet two requirements: first, he has to succeed with an Attack Roll against each one (not hard, since they're at reduced DCV due to being Grabbed); second, he has to pay 36 END — one payment of END for each victim affected.

PUPPETEERING

A character can use Telekinesis to "take control" of a target's body and make him do things he doesn't want to do — sort of an Entangle that forces the target to move. Each Phase in which the telekinetic retains control of the target, he may make that target take one physical action — walk, run, pick things up, pull a trigger, and so on. He cannot force the target to take actions that are mental or which are not based on physical movement (he could not, for example, force the target to fire an innate Blast or use a Mental Power). If he makes the puppet attack another character (either HTH or at Range), the puppet's OCV is ½ of the mentalist's OCV (or OMCV if using Psychokinesis); the damage in HTH Combat depends on the mentalist's telekinetic STR, not by the puppet's STR.

A puppet cannot perform fine actions unless the Telekinesis is bought with Fine Manipulation. If two telekinetics try to use the same person as a puppet at the same time, a STR Versus STR Contest determines who wins control.

WIELDING WEAPONS

If a character uses Telekinesis to wield a weapon to which he can add damage with STR, his Telekinesis STR adds at the same rate and in the same way as his personal STR. There's no change for the fact that Telekinesis costs more than STR.

ADVANTAGES AND ADDERS

Affects Porous: Characters cannot ordinarily use Telekinesis to pick up liquids. They can do so if they buy this +10 Character Point Adder. The amount of liquid a character can pick up depends on his telekinetic STR and the weight of the liquid. A character may use Affects Porous Telekinesis to shape the picked-up liquid into crude forms (such as squares, spheres, or humanoid shapes); to actually sculpt the water requires Fine Manipulation and PS: Sculptor.

Fine Manipulation: The text of the *Fine Manipulation* Adder notes it doesn't allow a character to manipulate objects on the microscopic level. With the GM's permission, a character can do that by buying the *Microscopic* Sense Modifier for his Sight, with the Limitation that it only works with Telekinesis, to allow him to "perceive" things at the microscopic level so he can telekinetically manipulate them. The GM determines the effects of microscopic Telekinesis, but of course shouldn't let it unbalance the game.

Cumulative: Characters cannot apply Cumulative to Telekinesis.

Animating Objects

Some characters want to have the power to make inanimate objects "come to life" — to move around, carry things, do chores, even attack their enemies. In the *HERO System,* the most appropriate way to model that ability is to use the *Summon* Power. That allows you to treat an animated object as a separate character so it and the character have distinct actions.

However, using Summon means you need a character sheet for the animated object, even if only a simple one, and that may not always be convenient. If you prefer a method that doesn't treat animated objects as separate characters, you create a simple "Animate Object" ability using Telekinesis.

Animating an object with Telekinesis requires an Attack Action. Keeping it animated in later Phases requires a Half Phase Action. Thus, a character could control two animated objects at once. However, since attacking with one requires an Attack Action, he can only attack with one at a time (though he could "attack with both" as the special effect of making a Multiple Attack). (At the GM's option, for each +5 Character Point Adder, *Multiple Animated Objects,* a character can animate two times as many objects simultaneously — four objects for +5 points, eight objects for +10 points, and so on. In this case, controlling any more than one object, no matter what they do, requires a Full Phase Action.)

Objects animated by Telekinesis are in effect objects used as improvised weapons (see 6E2 173). If the character attacks a target with one, use the rules for improvised weapon damage... including the rules about damaging the improvised weapon. Chairs, statues, trees, and other things a character might animate using Telekinesis aren't intended for use as weapons and can easily batter themselves apart smashing into a foe. However, animating an object does not, in and of itself, damage the object in any way. Depending on special effects the object may literally seem to come alive, flexing and moving in ways its materials never could, but when the animation stops, it returns to its standard form, undamaged.

At the GM's option, a character who's animating an object can simultaneously use his Telekinesis to push, pull, turn, or otherwise affect targets in addition to simply hitting them for Normal Damage. For example, he could pull the trigger on an animated rifle to make it shoot bullets as well as animating it so it "walks" around and bashes targets.

Additionally, animated objects can sometimes perform mundane chores. An animated bed or table could carry other objects for the character, an animated chair could wrap its arms around an occupant to Grab him and hold him prisoner, an animated broom can clean the floor. At most, objects can only exert the Telekinesis STR used to animate them, and even that may be too much. If an animated object carries a heavy load, determine the STR needed to pick up that much weight, then use that STR to apply damage to the object every Segment. If the damage breaks the object, the load is dropped and the object becomes un-animated.

A character animating an object can only exert his Telekinesis STR through it. He can't use the object's natural functions, if any — he can't turn it on, fire a built-in weapon, or the like. (Of course, it might be possible to do that by separately using Telekinesis in the usual way to just manipulate parts of the object.)

As "weapons" controlled by a character, animated objects act on their controller's SPD (in effect, the controller takes Actions "through" them). Typically animated objects can move at no more than Running 12m per Phase. Large objects with long legs (such as a big table) might move faster; smaller objects, or ones without features that function as legs, usually move much slower.

If a character can only use Telekinesis to animate objects, he can buy the Power with a -½ Limitation, *Animate Object.* If he can only animate certain types of objects (such as only statues or only furniture), he can take an additional Limitation reflecting that.

TELEPATHY

Here are some additional rules and options for Telepathy.

EGO +40: THE COLLECTIVE UNCONSCIOUS

At the GM's option, a mentalist who achieves EGO +40 or greater on a target may read into the target's *collective unconscious*, or racial memory. This level is entirely symbolic and archetypical, with the symbols relating to the target's species and culture (an American's collective unconscious includes Uncle Sam; a Scandinavian's includes the Norse gods; any male human's mind would contain a Madonna/whore image of Woman, and so on). This is not only an interesting storytelling tool, but can give a character some clues as to the mores and motivations of strange cultures, aliens, and the like.

MENTAL TAGS

A mentalist may use Telepathy to place a "mental tag" on someone that makes it easy to locate that person later with Mind Scan. The tag can apply to any Mind Scan, or just to the Mind Scan of the mentalist who places the tag (and anyone else he tells about it). Placing tag requires a Full Phase. The mentalist must succeed with an MCV Attack Roll, achieve at least an EGO +10 Telepathy Effect Roll, and succeed with an unmodified EGO Roll.

A mental tag lasts for a minimum of 1 Turn. The mentalist counts the "Normal Damage BODY" on his Effect Roll. For each "BODY" rolled, the message or emotion lasts for one step on the Time Chart beyond the minimum time of 1 Turn. A mental tag lasts until it's expired or removed via psionic surgery (see below under *Transform*). At the GM's option it can also be removed by using Telepathy with an Effect Roll equal to or greater than the Effect Roll that implated the tag to do so. As long as a tag exists it's obvious to anyone who successfully uses Telepathy on the subject, but cannot be perceived with Mental Awareness.

Until a tag expires or is removed, a mental tag applies a +10 OMCV bonus for using Mind Scan to locate the tagged mind (the bonus applies either to all uses of Mind Scan, or the use of Mind Scan only by the mentalist and people he specifically tells about it, depending on how he defines the tag). The tag is like a "mental beacon" that draws the attention of mentalists who are looking for it. A tagged person knows he's been tagged unless the mentalist declares and achieves the +20 "Telepathy cannot be detected by target" level of effect when implanting it.

NONHUMAN THOUGHTS

Telepathy isn't limited to Human minds. It can be used on many types of minds, depending on how the character defines it and the way the GM uses the class of minds rules. Here are a few additional guidelines.

Mentalists usually have an easy time using on animals, who tend to have low EGO scores; this sort of power is known as "theriopathy" or "theriokinesis." However, except in genres where they're sentient, animals don't generally "think" the same way Humans do. Their thoughts are sensory impressions and instincts, not sentience. Telepaths can mentally "talk" to animals, but their "speech" should be simple and straightforward. At the GM's option, some types of animals, such as cetaceans or apes, may experience actual sentient thoughts, or thoughts more advanced than "standard" animal thoughts.

Alien minds may be difficult for a telepath to use Telepathy on. Since Telepathy crosses the language barrier, mentalists can understand alien minds at a crude level, but the thought processes may be so, well, *alien* that the telepath can't achieve full understanding of them. They may even cause psychic trauma!

PSYCHIC MESSAGES, IMPRESSIONS, AND TRAPS

Characters can use Telepathy to implant "psychic messages" in places or objects. The messages can only be short — no more than five times the character's EGO in words unless the character buys the *Enhanced Messages* Adder (see below). In many (if not most) cases implated messages aren't even expressed in words, they're "feelings" or emotions: "this object is dangerous"; "you'd enjoy keeping this object"; and so forth. Especially strong emotional or psychic events, such as murders, battles, romantic proposals of marriage, and the like may also leave psychic messages or impressions. A character can read an implanted message with Telepathy (it's typically considered a "surface thought") or Psychometry Retrocognition (see APG 85). Psychometry usually provides a much stronger and more accurate reading of the message.

To implant a message or emotion, a telepath takes a Full Phase (or longer, for lengthy messages), makes his Effect Roll, and counts the "Normal Damage BODY" on the roll. For each "BODY" rolled, the message or emotion lasts for one step on the Time Chart beyond the minimum time of 1 Turn. In other words, the more power a telepath uses, the clearer and longer-lived his message becomes.

A character can also implant a mental "trap" in a mind or an object by using Telepathy and another Mental Power with the *Trigger* Advantage. The telepath must roll enough on his Telepathy dice to read surface thoughts and then succeed with an EGO Roll. Then he rolls the dice for the other Mental Power and sets the Trigger (example Triggers include picking up a specific object, achieving EGO +10 with Telepathy, or

MINDSCAPES

It sometimes happens that a mentalist who's telepathically probing someone deep enough to read deep, hidden thoughts or subconscious thoughts gets caught up in a miniature psychodrama within the target's mind. Rather than being represented as dry thoughts, the target's mental processes become a sensory world where the telepath encounters all sorts of objects, people, and creatures (many or most of whom have some symbolic meaning that the mentalist must interpret [this is particularly true at the level of the subconscious]). In some cases, the target mind is so strong (or so deranged) that the mentalist becomes trapped in this "mental world," and must solve some problem or cure the target's madness before he can get out again.

any successful use of Mind Control). The telepath then makes a second Effect Roll and counts the "BODY" to determine how long the trap will remain in effect, as outlined above.

A character can define a mental trap as attacking anyone who "reads" the trap or the thing/person who "carries" the trap. Examples include a trap that subjects the reader to a Mental Illusion or Mind Control, or a trap which Mind Controls the person in whom it's planted to commit suicide if anyone tries to use Telepathy on him.

Mental traps are normally perceivable by anyone who uses Telepathy on the person or thing carrying the trap, but are not perceivable by Mental Awareness. A mentalist can hide a trap by buying the Triggered Mental Power with Invisible Power Effects (+¼).

PSYCHIC TRAUMA

Sometimes a telepath is inside a target's mind during particularly stressful or unusual occasions. At the GM's option, this may cause "psychic trauma," a form of feedback that can inconvenience, injure, or even kill the mentalist. Psychic trauma can occur in the following situations:

- When the telepath is in the mind of someone who suffers an injury (or possibly who's already feeling pain for some reason). The telepath may take a portion of the damage as STUN-only damage.
- When the telepath is in the mind of someone who dies (particularly when the death is violent). In this case the telepath may take damage (including BODY), may black out for 1d6 Segments (or longer), or may suffer some other appropriate effect. In extreme cases, the telepath might die as well.
- When the telepath enters the mind of someone caught in the grip of a Mental Illusion. Normally the telepath is able to view the Illusion dispassionately, knowing it for what it is, and in fact may be able to help the victim break out of the illusion by mentally telling him what's happening (see C*ompeting Mental Powers,* 6E1 152). However, particularly vivid, unusual, or strong Illusions (for example, any Illusion at the +30 level) may draw the telepath into them, subjecting him to their effects. In this case compare the Mental Illusions roll to the telepath's own EGO to determine how strongly he's affected by the Illusion; the telepath may make Breakout Rolls as normal.

The GM can also use this rule for experiencing a target's dreams, which can be considered a form of "Illusion." Usually a telepath can simply "observe" the dream, and even enter it or manipulate it if he wishes, but in the case of some dreams (*i.e.,* vivid nightmares) could experience difficulties. See the *Mindscapes* sidebar on APG 124 for more information.

- When the telepath encounters particularly horrible or terrifying memories. Examples might include memories of a serial killer's or murderer's activities and feelings; memories of child abuse, rape, or other extremely unpleasant situations; memories of circumstances that have spawned phobias; and memories of particularly dangerous situations. In this case the telepath might take minor amounts of damage, or might reflexively "eject" himself from the target mind.
- When the telepath enters the mind of a deeply insane person. In this case the telepath might take minor amounts of damage, reflexively "eject" himself from the target mind, or get trapped within the target's bizarre, twisted mindscape.

Depending on how the GM defines psionics and psionic powers in his campaign, psychic trauma might be a "default" phenomenon that all telepaths can fall prey to, or it could affect only those who take a -1 Limitation, *Can Suffer Psychic Trauma.* A character whose mind may cause psychic trauma could buy a Mental Damage Shield to reflect this "power."

SHOUTING

At the GM's option, a character with Telepathy can mentally communicate with everyone nearby at once by telepathically "shouting." Typically this requires a successful EGO Roll (or a *Power* Skill roll), but the GM may allow it automatically in the interest of dramatic sense or other factors. The range of such a "shout" usually roughly equals that of a vocal shout. The message shouted is the same for all "hearers," and is usually short, simple, and to the point (such as "Look out!" or "Help me!").

SIMULTANEOUS TELEPATHY

Two telepaths reading or communicating with the same mind at the same time are automatically aware of each other's presence, absent the use of Invisible Power Effects. They cannot, however, communicate mentally with each other unless they establish their own telepathic connection via Telepathy or Mind Link; being in the same mind constitutes "Line Of Sight" (not only for these purposes but for making mental attacks as well).

TOUCHING THE SUBJECT

At the GM's option, a telepath may get a bonus of +5 (or greater) to his Telepathy Effect Roll when he's in skin-to-skin contact with a person he uses Telepathy on. More intimate forms of contact could bring even greater bonuses. This bonus doesn't apply if the Telepathy is bought with the *Skin Contact Required* Limitation.

ADDERS

Sensory Impressions: Telepathy with this +5 Character Point Adder can convey direct sensory impressions to the telepath using it, if the telepath so desires. For example, if he's telepathically reading the mind of someone who's taking a hot shower, he'll feel the impact and heat of the water just as if he were taking the shower himself. However, he suffers no loss of STUN or BODY, nor any beneficial effect such as an Aid, from any source (though Telepathy with this Adder often takes the *Feedback* Limitation as well).

Enhanced Messages: A character who implant "psychic messages" in places or objects (see above) is normally limited to messages no more than five times the character's EGO in words. For every +1 Character Point spent on this Adder he can double the length of the message he can implant.

LIMITATIONS

Partial Effect (-½): Telepathy with this Limitation is easier to avoid than normal. The target makes his first Breakout Roll as usual. If it succeeds, he breaks the telepathic contact. If it fails, the telepathic contact remains in place, but the target gets to make an EGO Roll. If the EGO Roll fails, he's subject to the standard effects of Telepathy. If the EGO Roll succeeds, he's able to put up some minor resistance to telepathic probes by feeding the telepath partially false information — for example, he could alter one or two digits in a phone number, a couple of letters in a name, or the hair color of a person in his memory. The more the EGO Roll succeeds by, the more information the GM can let him alter.

TELEPORTATION

Here are some additional rules and options for Teleportation

GATES

Characters are not required to add the *Safe Blind Teleport* Advantage (see below) to their Gates just because they can see through them and are therefore not likely to step into a solid object or hazardous environment. They can apply Safe Blind Teleport if they want, but it's not mandatory. Typically, if a character opens a Gate onto a hazardous area, he sees that, shuts it down, and tries again — meaning he's wasted a Phase. If a Gate power has Safe Blind Teleport, it automatically shifts the opening of the Gate to the nearest area large enough to hold it (though, as the text of the Advantage notes, that doesn't necessarily mean the nearest safe area).

A character might want to create a Gate in an area that's already filled with matter — such as underwater, in the middle of a mountain, or the like. The GM determines the exact effects. This may mean nothing happens and the Gate's effectively useless (the typical outcome for a Gate opened inside a solid object). On the other hand, opening a Gate underwater could cause water to flow through the Gate at the rate of the character's weight limit per Phase. (The GM may, if he wishes, apportion the total per Turn equally over 12 Segments.)

GATES AND ATTACKS

If a character can create a Gate as a Half Phase Action, he could open it adjacent to a foe and then make a HTH Combat attack against him using his remaining Half Phase Action. (He could also make a Ranged Attack against more distant foes, effectively using the Gate to diminish or eliminate the Range Modifier.) However, as the text of 6E1 notes, it can be difficult for a character to position a gate properly unless he has a Fixed or Floating Fixed Location with it. The GM might require a character to make a PER Roll, DEX Roll, or a Teleportation Tricks roll to set up the Gate so it opens at the right point for him to make the attack against the target.

The GM may prefer to rule that opening a Gate always constitutes a Full Phase Action, if he feels the possibilities of abusing the Gate rules to make attacks are too great. And don't forget that the Gate has to remain open at least until the character's next Phase, which may make it possible for the target to counterattack. With the GM's permission, a character could use a Gate with Snap Shot, but that has a real potential to cause game balance problems.

ABSOLUTE EFFECT GATES

Some GMs may find the standard Gate rules regarding the size and weight of objects a Gate can "carry" to be inconvenient, because they'd rather have Gates that can work on *anything* regardless of size or mass. (This might be appropriate for some Gates created by magic, for example.) To create that sort of Gate, the GM should use the Absolute Effect Rule (6E1 133): he declares that all Gates must meet certain standards for size and weight, and then rules that these Gates can "carry" *any* weight or size of object.

FIXED LOCATIONS

A character cannot mark a specific object as a Floating Fixed Location and then perceive that object wherever it goes. However a character could buy a Detect specifically for that purpose.

Typically only the character who creates a Fixed or Floating Fixed Location can change it. But special effects may factor in — for example, if a character "memorizes" a Location by placing a small physical tag on it, then someone else could move the tag.

With the GM's permission, a Fixed or Floating Fixed Location can be Dispelled, Drained/Suppressed, or the like, but the attacker must reduce the entire Teleportation power to zero (or otherwise "overcome" the entire Teleportation power as specified in the rules), not just the cost of the Location.

A character cannot define a Fixed or Floating Fixed Location that relates to another character's use of Teleportation, such as "the same destination as another character just Teleported to."

OTHER USES FOR FIXED LOCATIONS

Under the standard rules, characters cannot buy Fixed or Floating Fixed Locations for any Movement Power other than Teleportation. However, the GM might want to consider allowing this in some circumstances. For instance, characters might want to buy a Location for:

- Leaping (particularly MegaLeaping) to ensure they can always hit the Location without having to make an Attack Roll to land at the correct target point.
- MegaRunning or MegaFlight, so they can run/fly to the exact spot they want and stop right there.
- Extra-Dimensional Movement powers that allow travel to multiple locations within one or more dimensions, to ensure they can always reach a particular location in a particular dimension without any worries or effort.

TRANSFORM

Here are some additional rules and options for Transform.

HEALING BACK

In many cases, the condition for reversing a Transform is that it "heals back normally" (*i.e.,* that the character heals the "Transform damage" the same way he would ordinary BODY damage). If the target of the Transform is an object (which has no inherent REC), the GM decides how quickly it un-Transforms. There's no set standard. He could base his decision on the object's general cohesiveness, resilience, and so on, or he might rule that all objects have "REC 4" for these purposes (just like typical people)

If a Transform is defined as "character must heal the BODY back normally," then typically Healing BODY or Regeneration counteracts the effects quickly by allowing the character to heal BODY "damage" at a much faster rate than normal. However, a character can define the reversal condition of a Transform as "character must heal the BODY back at the standard REC/month rate," in which case Healing and Regeneration have no effect.

MULTIPLE AND REPEATED TRANSFORMS

It's possible that, while Transformed, a character will get Transformed a second time, into something else. For example, while Transformed into a wolf, a character might then get Transformed into a mouse. In this situation, both the "healing times" continue to run normally. If the wolf form runs out while the character is still in mouse form, when the mouse form ends he reverts to man-shape. If the mouse form runs out first, he reverts to a wolf — but the wolf form has been "on the clock" while he was a mouse. The second Transform doesn't put the first one "on hold."

A character (most likely a villain) can use a Transform on someone repeatedly to in effect prevent them from un-Transforming over time. For example, suppose Witchcraft Transforms Holocaust into a frog on May 1. Based on Holocaust's REC he'll heal back and un-Transform in a month. If she wants to Witchcraft can Transform him again each day. That way Holocaust heals back from the first Transform on June 1... but the one she applied on May 2 remains in effect, so he stays in frog form. Or she could just wait until May 31 and re-Transform him the day before he heals back so that he remains a frog for another month.

TRANSFORMING ENERGY

It's possible that some characters have the ability "transform" energy (since, according to modern physics, most forms of energy can be changed into other forms without any loss of energy [heat being one significant exception]). For example, a character might have the power to transform Sonic energy into Light energy, or Electricity into Magnetism, or Ice/Cold into Fire/Heat.

Despite referring to this as "transformation," this sort of ability doesn't involve the *Transform* power. Typically it's just a Limitation on the character's powers. For example, the superhero Mirrorball has various Light powers... but he has to have sound (Sonic energy) to "fuel" his abilities. He takes the Limitation *Requires Sufficient Sound* (-¼) on nearly all of his Light powers (including an Endurance Reserve for them) and works out the details with the GM (*e.g.,* every 5 deciBels of sound that Mirrorball can hear provides 1 REC for his Endurance Reserve, perhaps with a Linked Change Environment to make it harder to hear the sounds Mirrorball is "transforming"). He might also buy one or more Adjustment Powers with "transforming energy" as the special effect (such as a Drain Sonic Powers plus a Linked Aid to Light Powers).

However, at the GM's option characters can buy Transform to work specifically on energy. As noted on 6E1 304, changing the special effects but not the nature of a Power is a Minor Transform. That would allow a character to convert, say, a Sonic Blast into a Fire Blast, Ice Blast, Radiation Blast, or whatever other special effect he wants, but not to change the Power used (Blast, in this case). The target of this type of Transform is "any energy" (which qualifies for a -¼ *Limited Target* Limitation), but the character can specify a more restricted class of target energy for a larger Limitation value. For a +¼ *Improved Results Group* Advantage, the character can Transform the target energy into up to four pre-defined types of energy; for a +1 Advantage, he can Transform it into any type of energy. A Major Transform can change the special effect *and* the Power into another one of similar type (such as a Blast to an RKA, Drain, or Mental Blast); a Severe Transform can change one Power into any other Power or special effect desired.

This type of Transform allows a character to, for example, intercept an enemy's Electricity-based Blast and convert it to, say, Pulson Energy (thus preventing the target, who has a Vulnerability to Electricity, from suffering the added effect). This sort of "interception" uses the same rules as for Dispelling an incoming attack, but could work on attacks made against other people, not just the character using the Dispel.

Every BODY rolled on a Transform Energy attack converts 5 Active Points of energy into the specified different form of energy. If the Transform only partly affects an energy attack, it hits the target with *both* energy types but the target suffers the worst sort of result he can from either type of energy for the *entire* attack. For example, suppose that the target of an Electricity attack has a Vulnerability to Electricity and also has Resistant Defense with the Limitation *Does Not Work Against Fire/Heat* (-½). Someone tries to shoot him with a Lightning Bolt power (Blast 12d6), and someone else uses a Transform Energy that converts 25 Active Points' worth of the Electricity into a Fire/Heat attack. The target not only still suffers from his Vulnerability (since the attack remains partly Electricity), he doesn't get to apply any of his Resistant Protection (because the attack is partly Fire/Heat).

With the GM's permission, characters can "Coordinate" not to improve their chances to Stun the target but to ensure that a Transform Energy takes place. If both succeed with their Teamwork rolls, the character using the Transform Energy gets to do so before the attack hits the target; if either of them fail, the Transform Energy has no effect.

The GM can adjust these rules as necessary in light of special effects, common and dramatic sense, and the need to preserve game balance.

PSIONIC SURGERY

The primary form of Mental Transform is *Psionic Surgery* — the ability to erase, change, add to, or otherwise affect a person's memories, personality, Psychological Complications, Enraged/Berserks (and other psychologically-oriented or psychosomatic Complications), Mental Powers, and the like. Typically Psionic Surgery is written up this way:

> **Psionic Surgery:** Major Transform 4d6 (erase, change, add to, or otherwise affect a person's mental "objects"; heals back normally), ACV (uses OMCV against DMCV; +¼), AVAD (Mental Defense; +0), Works Against EGO, Not BODY (+¼) (60 Active Points); Limited Target (mental "objects" in the minds of sentient beings; -½), No Range (-½). Total cost: 30 points.

(Note: depending on special effects, various uses of Dispel, Drain/Suppress, and possibly even Telepathy could be considered "psionic surgery.") A character can increase the value of the *Limited Target* Limitation if he wants to restrict it to just one type of mental object (such as "only memories" or "only Psychological Complications pertaining to love and desire") or to a particular sentient species in a multi-species campaign.

The table on APG 130 lists the typical actions performed with Psionic Surgery, the type of Transform required, and the modifier to the target's EGO (if any). A character with Psionic Surgery based on Major Transform can perform any type of psionic surgery; characters with versions based on Minor or Cosmetic Transform can only perform a few types. For these purposes, a Major Transform can completely remove/change any sort of mental Complication, even one worth more than 20 Character Points.

In some cases, making minor changes to a mental object that ordinarily requires a Major Transform may, at the GM's option, only require a Minor Transform. For example, adjusting the intensity of a Psychological Complication from Strong to Moderate, or from Strong to Very Strong, might only require a Minor Transform since the character's only altering the intensity of feelings/belief, not their focus. If the GM permits this, use the point guidelines on 6E1 304 to determine how much effect a lesser Transform can have (for example, a Minor Transform could alter a Psychological Complication by adding or removing no more than 10 Character Points' worth of effect).

In other cases, the GM might allow a mentalist to use a lesser-strength Transform to accomplish something that ordinarily requires a Major Transform, but have the effects wear off (*i.e.,* heal back) much more quickly, be more easily detected by another mentalist, or the like. For example, temporarily changing someone's personality/"mental appearance" as a quick "mental disguise" might be possible with a Cosmetic Transform — but a mentalist reading that person's mind would have a much easier time seeing through the disguise than he would if it were applied with a Major Transform (perhaps a +3 or greater bonus to his PER Roll).

IMPLICATIONS AND RESTRICTIONS

Psionic Surgery should *not* be used as a cheap way for characters to eliminate their mental Complications on a permanent or near-permanent basis. Psychological Complications and the like are extremely important for defining who a character is and why he does what he does, so using Psionic Surgery to change or eliminate them can make the game less fun. If characters try to do this anyway, the GM should require them to buy those Complications off, on the grounds that they're not really disadvantageous in any meaningful way.

Mental Transforms "heal" more or less the same way ordinary Transforms do — either according to some predefined method, or at the rate of REC/month in BODY (or EGO). In many cases the predefined method is "Psionic Surgery must be used again to reverse the effects." Even if that's not specifically defined ad a healing condition, at the GM's option a mentalist with a "psionic surgery" Mental Transform can usually reverse the effects of any Mental Transform. (Remember, a target of a Mental Power can voluntarily lower his EGO to 0 if he wants to be affected, virtually guaranteeing that the corrective Psionic Surgery succeeds.)

SKILL

Messing around with someone's thoughts and memories, not to mention his psionic powers, may be a difficult, delicate, and potentially dangerous task. At the GM's option, characters can only perform simple types of Psionic Surgery (*i.e.,* only Cosmetic Transforms) unless the character buys a special Science Skill, *Psionic Surgery.* Typically this doesnt entitle the character to take the *Requires A Roll* Limitation for his Psionic Surgery power (it's a prerequisite established by the GM for using such powers at all), but the GM can require it as a mandatory Limitation instead.

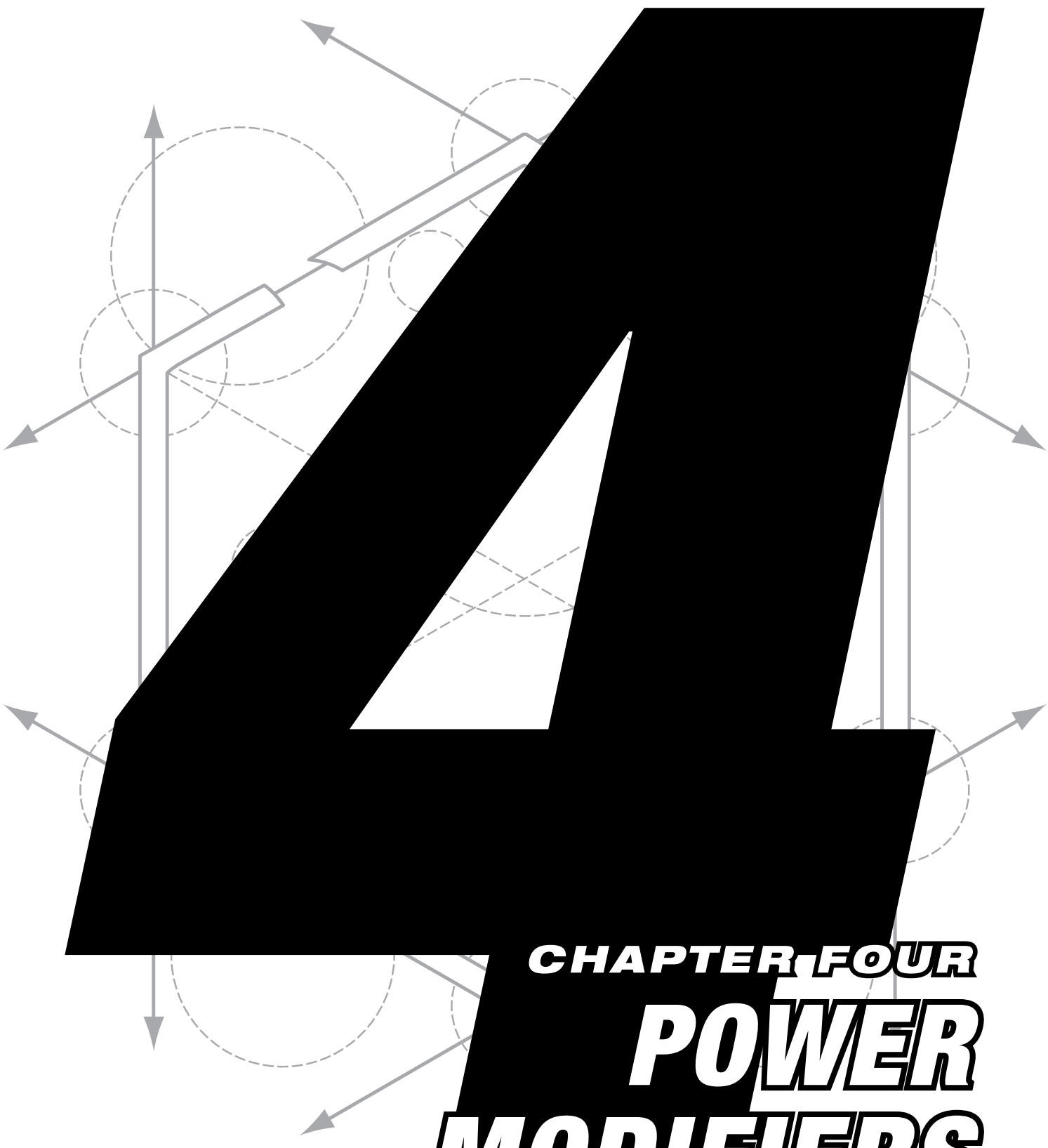
In that case, when a character performs Psionic Surgery, he has to make a Skill Roll. If the roll succeeds, he accomplishes what he set out to do with no problems. If he fails, he botches the Psionic Surgery. Typically this means he just failed to do what he wanted to (he doesn't properly excise or implant the memory, Psychological Complication, or the like). If he fails the roll badly (by 4 or more) he causes some sort of side effect. The GM determines what happens; some examples include: he takes away too much of the subject's memory, resulting in partial or total amnesia; he causes the character to acquire another mental Complication, or worsens one the target already has; he injures the subject's brain, causing a temporary or permanent loss of 1d6 points of INT or EGO (or a reduction in INT- or EGO-Based Skill Rolls).

PSIONIC SURGERY

Mental Object And Desired Effect	Transform Required	EGO Required
Enraged/Berserk		
Adding/augmenting	Major Transform	EGO + (value of Complication/5)
Removing/weakening	Major Transform	EGO + (value of Complication/5)
Fact, adding or removing		
Very minor importance	Cosmetic Transform	EGO -3
Minor importance	Minor Transform	EGO -1
Medium/average importance	Major Transform	EGO
Major importance	Major Transform	EGO +1
Extremely important	Major Transform	EGO +3
Memory, adding or removing		
Very weak	Cosmetic Transform	EGO -3
Weak	Minor Transform	EGO -1
Medium/average strength	Major Transform	EGO
Strong/important/intense	Major Transform	EGO +1
Extremely strong/intense	Major Transform	EGO +3
Mental "appearance" or "shape," changing	Minor Transform	EGO
Mental Power (including a Psychic Bond)		
Adding/augmenting (if possible)	Major Transform	EGO + (Active Point cost of Power/5)
Removing/weakening	Major Transform	EGO + (Active Point cost of Power/5)
Mental Tag (see APG 124)	Minor Transform	EGO - (Active Point cost of Power/5)
Mental Trap (see APG 124) adding or removing	Major Transform	EGO + (Active Point cost of Trap/5)
Psychological Complication	Major Transform	Cost of Limitation
Adding/augmenting	Major Transform	EGO + (value of Complication/5)
Removing/weakening	Major Transform	EGO + (value of Complication/5)
Restore memory of +20 Mind Control (see 6E1 253)	Minor Transform	EGO
Skill		
Adding/augmenting (if possible)	Major Transform	EGO + (Active Point cost of Skill/5)
Removing/weakening	Major Transform	EGO + (Active Point cost of Skill/5)

"Adding" an ability means to give it to the target character; "removing" it means to take away an ability he has.

"Augmenting" an ability refers to improving it in some way, such as adding Active Points or an Advantage. "Weakening" a mental object means worsening it in some way, such as reducing its Active Points, removing an Advantage, or imposing a Limitation. In this case, the GM should change "value of [mental object]/5" to "alteration in value of [mental object]/5" — in other words, calculate the modifier to EGO based not on the total value of the object, but what changes. For example, if Mentalla uses a Mental Transform to change Ironclad's Enraged from a 15-point Complication to a 20-point Complication, that increases his EGO by 1 for Mental Transform purposes ((20-15)/5), not by 4 (20/5).



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CHAPTER FOUR

POWER MODIFIERS

ADVANTAGES

Unless a more specific rule states otherwise, a character can't buy an Advantage for an ability, then take a Limitation to cancel that Advantage. For example, a character can't buy the *Persistent* Advantage for a power, then take the *Nonpersistent* Limitation for it.

With the GM's permission, a character could have a partially-Limited Adder (such as x2 Improved Noncombat Multiple, plus a second x2 with Increased Endurance Cost).

NAKED ADVANTAGES

If a character buys a Naked Advantage as a Multipower slot with the GM's permission, it has to be a Fixed slot. A Naked Advantage can't be put in a Variable slot.

If a character buys a naked Advantage that can apply to more than one attack, it's usually bought to cover any one of a category of attacks (such as "all firearms"). For this purpose, STR and HA are considered the same, so characters can't buy a Naked Advantage that can apply to either of them — they have to buy it specifically for STR or for HA. The standard Adding Damage rules would then apply to the Advantaged ability.

If a character applies Requires A Roll to a naked Advantage, he only has to make the roll when he uses the Advantage — if he just uses the power without the Advantage at all, he doesn't have to make the roll, because the base power itself isn't Limited that way. But since naked Advantages are by default Instant Powers, maintaining a naked Advantage with RAR for more than one Phase typically requires one roll per Phase. If a character only wants to have to roll once to activate the naked Advantage, then have it remain in effect until he changes the Advantage (or the like), he should apply Constant (+½) to the naked Advantage to make it a Constant Power, and choose the appropriate form of RAR as the appropriate Limitation.

ESPECIALLY EFFECTIVE ADVANTAGE COMBINATIONS ⚠

The rules on 6E1 327 apply a "surcharge" to Autofire when it's bought for certain Powers (such as Mental Blast) or for a power that has certain other Advantages (such as Area Of Effect). If the GM is concerned about "Advantage stacking" (6E1 313), he can make this a more general rule that applies to any "especially effective" Advantage combination.

For these purposes, Advantages are grouped into four categories: Attack (Advantages which affect how an attack applies to defenses, or the like); Duration (Advantages which affect a Power's duration); Targeting (Advantages which affect how many targets a power hits, or how it hits them); and Miscellaneous. The GM determines which category an Advantage belongs to; see the accompanying table for suggestions.

If a power has two or more Attack Advantages, two or more Targeting Advantages, or at least one Attack and one Targeting Advantage, it must pay an "especially effective" surcharge of +1. Some GMs may want to take this further and increase the value of the surcharge based on how many Advantages a power has (*e.g.,* a +½ surcharge for each especially effective Advantage after the first).

ALTERNATE COMBAT VALUE

The options for ACV on 6E1 318 cover the vast majority of situations where characters want to switch the CV used to target or defend against an attack. Here are a few additional options for more unusual situations.

ADVANTAGE CATEGORIES

Attack Advantages
- Armor Piercing
- Attack Versus Alternate Defense
- Autofire
- Cumulative
- Damage Over Time
- Does BODY
- Does Knockback
- Double Knockback
- Penetrating

Duration Advantages
- Duration Advantages

Targeting Advantages
- Alternate Combat Value
- Area Of Effect (whether a standard form, or Damage Shield)
- Hole In The Middle
- Indirect
- MegaScale
- Range Advantages
- Ranged
- Transdimensional
- Uncontrolled
- Usable On Others

Miscellaneous Advantages
- Affects Desolidified
- Charges
- Delayed Effect
- Difficult To Dispel
- Invisible Power Effects
- Personal Immunity
- Reduced Endurance
- Sticky
- Time Limit
- Trigger
- Variable Advantage*
- Variable Special Effects*

***:** Depending on the campaign, the types of characters involved, and the like, the GM may want to classify these as Attack Advantages instead.

ALTERNATE COMBAT VALUE OPTIONS

Value	Effect
+0	Non-Mental Power uses DCV to target instead of OCV
+0	Non-Mental Power attacks against OCV instead of DCV
-¼	Non-Mental Power uses DMCV to target instead of OCV
+¼	Non-Mental Power attacks against OMCV instead of DCV
+0	Mental Power uses DMCV to target instead of OMCV
+0	Mental Power attacks against OMCV instead of DMCV
+0	Mental Power uses DCV to target instead of OMCV
-¼	Mental Power attacks against OCV instead of DMCV

AREA OF EFFECT

If a character is attacked with an Accurate Area Of Effect that's a Constant Power, he can avoid the effects of the attack in later Segments by moving out of the affected Area, just as he could with a non-Accurate Area Of Effect. To make the attack "stick" to him and move with him as he moves, the attacker should buy Usable As Attack for it.

Damage Shield

A Damage Shield provides no defense against attacks. A character who wants to be "protected" by his Damage Shield should buy Resistant Protection or other Defense Powers that are Linked to his Damage Shield. (This doesn't reduce the effectiveness of either the Damage Shield or the Defense Power.) However, just because Damage Shield doesn't act as a defense (in other words, it doesn't reduce the damage caused by any attack made against the character), that doesn't mean it can't have defensive consequences or uses. For example, if a character using a Damage Shield is captured in an Entangle, the Damage Shield affects the Entangle every Phase (unless some Advantage on the Entangle, or Limitation on the Damage Shield, indicates otherwise). Similarly, a Damage Shield affects a person Grabbing the character.

AREA OF EFFECT DAMAGE SHIELDS

Although Damage Shield is already a form of Area Of Effect (Surface), a character may sometimes want to buy a Damage Shield that affects anyone in the Area around him, rather than just people who touch him. Assuming the GM permits this, a character can do this by purchasing Area Of Effect (typically Radius) as a separate Advantage for his Damage Shield. Since a Damage Shield is already No Range, an Area Damage Shield is also, and moves with the character as he moves. Anyone who enters the Area takes damage as usual for Area-affecting Constant Powers (see 6E1 127-28). The character himself doesn't take damage from the Damage Shield; he doesn't have to buy Personal Immunity to protect himself from it.

AUTOFIRE DAMAGE SHIELDS

If a character applies Autofire to a Damage Shield, he must pay for the additional +1 Advantage, since Damage Shield doesn't involve a normal Attack Roll. To determine how many "shots" hit, either the GM establishes a standard, or he rolls randomly.

UNCONTROLLED DAMAGE SHIELD

Unless the GM rules otherwise, adding Uncontrolled to a Damage Shield allows the damage caused by the Damage Shield to continue to affect the target after contact between the character and the target ceases, subject of course to whatever condition ends the Uncontrolled effect (including simply running out of END to power it). Buying Constant a second time for a Damage Shield, or buying it for a Damage Shield based on a Constant Power, also has this effect, but without the need to define a condition or event that ends the damage. Adding Sticky to the power just means that people who touch the victim also become subject to the effect.

Explosion

As a way to adjudicate the effects of Explosions more quickly during game play, instead of subtracting dice the GM can simply remove a defined amount of BODY and STUN damage for every 2m out from the target Area. For example, perhaps for every 2m radius beyond the first 2m, an attack loses 3 STUN and 1 BODY. The GM can set the rate of subtraction based on how effective he wants Explosions to be, and may even vary it by Power, type of explosive used, or the like.

Other Areas Of Effect

Here are a few other forms of Area Of Effect (or modifiers to existing forms) that GMs can allow in their campaigns, if desired.

ACCURATE SELECTIVE

Value: +¾ more Advantage

This modifier is like the *Selective* modifier, but with one important difference: after hitting the Area, the character doesn't have to roll to hit the targets in that area which he wants to hit. He hits them automatically. In other words, this form of Area Of Effect is like a regular Area Of Effect, except that the character can ignore targets in the Area he doesn't want to harm.

CAGE

Value: See text

A character can make an Area Of Effect (typically a Radius) into a "cage" — with an area in the center that's not affected by the power — by applying the Limitation *Targets Only Take Damage If They Touch Cage Or Move Into/Out Of The Affected Area* (-½). In other words, the boundaries of the Area form a "wall" that affects anyone who touches it (from either inside or outside), but being in the interior of the Cage doesn't cause anyone harm. The Cage's "walls" can include a "ceiling" and a "floor" if the creator of the Cage so chooses.

Typically a Cage uses Area Of Effect (Radius) so the "walls" of the Cage conform to the edges of the Area, leaving most of the interior of the Area open — how big the interior is depends on the size of the Radius. For larger Cages, typically the "walls" of the Cage are narrow ones along the outer edge of the Area, leaving a large interior unaffected. However, with the GM's permission a character can define his Cage as having thicker walls and a smaller interior area; he must make this choice when he buys the power, and can't alter the configuration of his Cage thereafter. (At the GM's option, for an additional +¼ Advantage the character can change the configuration of his Cage's walls, making them thicker or thinner from use to use as desired.)

A character trapped within a Cage isn't inhibited in any way. He can move freely, and even leave the Cage if he wants to — it's just that moving through the "walls" causes him damage. (By Linking the Cage with a Barrier, a character could give it a physical component that the victim has to break through to get free.) He can perceive through the "walls" of the Cage normally, and even fire Ranged attacks through them without difficulty. (However, the GM may rule that any physical missiles passing through the "walls" suffer the Cage's damage.) If the GM permits, characters can buy Adders and Advantages like *Cannot Be Escaped With Teleportation* or *Opaque* to a Cage to further incapacitate those trapped within.

Because a Cage is made of "energy" (or whatever the special effects of the power indicate), the Cage itself can't be attacked (any more than a standard Constant Area Of Effect could be). For ¼ less Advantage, a Cage has BODY equal to its Active Points divided by 10 (but no PD or ED) and can be attacked; it has DCV 3, and is destroyed when it reaches 0 BODY. For 0 less Advantage, a Cage has BODY, PD, and ED equal to its Active Points divided by 10; it has DCV 3, and is destroyed when it reaches 0 BODY.

CONFORMING

Value: +½ more Advantage

Normal Areas Of Effect do not conform to the space they affect; they expand out to their limits and, if blocked, affect whatever blocks them. For example, suppose a wizard has a Fireball spell (RKA 2d6, 12m Radius). He casts it into a corridor that's 6m wide. The Fireball fills an area equal to 12m (up and down the corridor) by 6m (the limits imposed by the corridor's walls, though the damage from the Fireball may be enough to destroy the walls so the Fireball can expand to its full area, albeit with its damage in the areas beyond the walls reduced by the ED+BODY of the walls).

An Area Of Effect power with this additional +½ Advantage conforms to the area in which it's used, and won't damage the walls (or other objects) that form that area's boundaries. (A Barrier qualifies as a "boundary" for Conforming purposes, unless the GM rules otherwise.) If the boundaries do not allow the Area Of Effect to expand out to its full size, the force of the attack is channeled in whatever direction it *can* go. For example, the Fireball described above, if it had this additional Advantage, would not blast down the corridor's walls, but would be channeled by the walls so that it filled more of the corridor than just 12m. The GM determines how far a Conforming Area Of Effect reaches, in what direction(s), and the other exact effects of this Advantage.

Characters can buy Conforming as a separate +½ Advantage for Powers that inherently affect an area, such as Darkness.

LIQUIDS AND GASES

At the GM's option, characters can buy Conforming in a slightly different way to reflect attacks based on liquids or gases.

Conforming (Liquids) represents an attack that takes the form of a liquid. It's typically bought for Area Of Effect (Surface). A Liquid attack acts just like a liquid. It runs from higher places to lower (the GM determines the rate of flow, based on the amount of liquid, viscosity, the nature of the surfaces involved, and other factors). It fills up cracks and crevices along any surface it comes to rest on, can gather in puddles, tends to seek the lowest level it can flow to, and so on. However, unless the GM rules otherwise, the overall size of the "pool" of liquid can never be larger in its overall dimensions than the size of the Area Of Effect purchased.

Conforming (Gases) represents an attack that takes the form of a gas, mist, smoke, or the like. It's typically bought for Area Of Effect (Radius). A Gas attack acts just like a gas. It billows out to fill an Area, then gradually sinks to the lowest level it can reach as gravity pulls it down. However, unless the GM rules otherwise, the overall size of the "cloud" can never be larger in its overall dimensions than the size of the Area Of Effect purchased.

Both Liquid and Gas attacks can seep through small cracks, such as under doors or through open windows. However, unless they're bought with the *Indirect* Advantage, the GM should only extend this effect so far; Conforming shouldn't grant other Advantages for free. If necessary he should require characters creating Liquid and Gas attacks to buy Indirect to represent this ability. Similarly, Liquid and Gas attacks may be subject to being dispersed by wind powers, drained away, and the like.

SIGHT RANGE

Value: See text

Characters sometimes use a combination of Area Of Effect and Line Of Sight to represent a power that only works if the target of the power can see the character. This assumes relatively normal sight conditions. As a default, assume sight has a range of 100m if no visual obstacles are present. If anything interferes with a target's ability to see — shadows, darkness, fog, foliage, or the like — the GM should reduce the effective range of the power, remove some of its Active Points of effect, or rule that it cannot affect the target at all. If something blocks a target's sight completely (utter darkness, a wall that's in the way, or the like), then the power cannot affect him.

When you combine Area Of Effect (Radius) at the +1 level with Line Of Sight (+½) and the *No Range* Limitation (which may also require Personal Immunity), a "sight range" power allows a character to affect anyone who can see him. This simulates abilities like a gorgon's power to petrify anyone who looks at her, or a light-manipulating supervillain's power to hypnotize anyone who sees the mesmerizing light patterns surrounding him.

TRAIL ⚠

Value: +1

One common power used by fast-moving characters in comic books and some other literature is to generate an attack or other effect behind them as they move. For example, a running speedster might set the ground behind him on fire due to super-friction, a flying speedster could generate a series of sonic booms as he moves through the air at supersonic speed, and just about any type of speedster might "pick up" and move objects in the "backdraft" that follows him as he moves at hypervelocity. Similarly, speedsters often like to create attacks where they run past a large number of foes and hit each one of them.

To do this using the standard rules, a character simply buys an Area Of Effect: Line attack that's *Linked* to his Movement Power. (In some cases Area Of Effect: Cone or Any Area may also be appropriate.) The Line should be bought to have a length equal to the character's meters of Combat Movement. The attack "activates" at the end of the character's movement, affecting everyone in the Line. If the character moves less than his full meters of Combat Movement, the Line is only as long as he moved. Since the attack is Linked to the character's movement, it still activates even if he performs a Full Move, and it's made against DCV 3.

To better simulate these sorts of powers, the GM can allow characters to use a new optional form of Area Of Effect, *Trail* (+1). A Trail is 2m wide and tall, and as long as the character's movement in the Phase; it cannot be made longer, larger, or taller unless the GM specifically permits. (Using Noncombat Movement, or Pushing or otherwise increasing movement increases the length of the Trail.)

A Trail only works in conjunction with a character's movement. It follows his movement path, so if he zigs and zags in and out among various obstacles, the Trail will also. (On the other hand, if someone stops him from moving under his own control, such as by causing him Knockback or tripping him, the Trail stops at whatever point he lost control.) A Ranged Power for which Trail is purchased automatically becomes a No Range power; it gets no Limitation for this. A character cannot Link a Trail power to a Movement Power; by definition a Trail only works in conjunction with a Movement Power. If the attack is one to which the character would ordinarily add damage from velocity (for example, the character's STR), he may still add velocity damage even though the attack is a Trail.

Example: *Afterburner (Running 40m) moves so quickly that he can generate super-friction that causes the air and ground behind him to burst into flame as he runs past. He buys this as an RKA 1d6, Area Of Effect (Trail; +1). If he runs 20m he creates a 20m Trail that's 2m wide and tall and does RKA 1d6 damage to anyone and anything in it. If he makes three turns during those 20m of movement, the Trail follows his turns. At the end of the Segment the fires dissipate (though it's possible the GM may allow them to set flammable objects on fire).*

Example: *The Scarlet Meteor (Flight 60m, No Turn Mode) wants to have the ability to fly past numerous targets and punch each of them with his 20 STR. He buys Area Of Effect (Trail; +1) as a naked Advantage for his STR (total cost: 20 points). Now when he flies, he can punch people for 4d6 Normal Damage as he flies past them, twisting and turning in the process and attacking against DCV 3.*

If a character wants to apply Trail to an inherently area-affecting Power, like Darkness, the GM should consider requiring the character to buy some minimum level of the power (perhaps using the rules on 6E1 187 as a guideline). Otherwise a character could buy a 2m radius version of these powers and make it significantly larger with Trail, causing game balance problems.

The GM should monitor the use of this Advantage to prevent abuse. It's intended to make it easier for characters to build intriguing and flavorful abilities that add to the fun of the game, not for stunts like criss-crossing planets and galaxies with trails of fire (or what have you) for a cheap cost.

TWO-DIMENSIONAL

Value: ¼ less Advantage

An Area Of Effect that normally covers three dimensions (such as Radius or Cone) can be made only 2m high with this option, which reduces the value of Area Of Effect by ¼. Characters can take Two-Dimensional as a separate -¼ Limitation for Powers that inherently affect an area, such as Darkness.

VOICE RANGE

Value: See text

Characters sometimes use a combination of Area Of Effect and Incantations to represent a power that only works if the target of the power can hear the character speaking, singing, or the like. This assumes a relatively normal volume of speech — the character may increase his voice slightly to "project" better, but cannot shout or scream. As a default, assume hearing has a range of 40m if no other noise is present. If anything interferes with a target's ability to hear — such as other loud noises in the vicinity, wearing headphones or heavy headgear, or plugging one's ears — the GM should reduce the effective range of the power, remove some of its Active Points of effect, or rule that it cannot affect the target at all.

When you combine Area Of Effect (Radius) at the +1 level with Incantations and the *No Range* Limitation (which may also require Personal Immunity), a "voice range" power allows a character to affect anyone who can hear him. This simulates abilities like a siren's seductive song, a faerie's power to make anyone who hears his music dance uncontrollably, or a sonic-powered superhero's Mind Control.

ARMOR PIERCING

Armor Piercing ("AP") is one of the most popular Advantages for Attack Powers. Here are a few ideas for expanding it, changing it, or creating similar effects. (See also the optional *Piercing* Power on APG 113.)

ALTERING THE RATE OF SUBTRACTION

Some gamers have a conceptual difficulty with AP because it's defined as reducing a target's defenses by half — a flat percentage. That means it removes more defense from a high-defense character than a low-defense character. For instance, a Blast 10d6, Armor Piercing when used against a character with 30 ED reduces his defense by 15 points... but when used against a character with 18 ED, it only removes 9 points of defense. To some gamers, this seems like illogical "meta-game" thinking; the effect should be more absolute and predictable, not dependent on the amount of the target's defenses.

One possible solution is to treat AP like Penetrating: the amount of points of defense removed by AP depends on the "Normal Damage BODY" rolled on the dice. That makes the defense removed more predictable, but with a little variability. For pure predictability, have AP reduce the target's defenses by 1 point per DC in the attack (without accounting for the *Armor Piercing* Advantage itself). Thus, a Blast 10d6, Armor Piercing would always remove 10 points from the target's defenses.

Using this sort of system requires a few other changes. First, you have to define Hardened not in terms of cancelling out one level of AP, but negating X points of AP effect. For example, perhaps one level of Hardened reduces an AP effect by 10 points. Thus, a Blast 12d6, Armor Piercing used against Hardened ED would only remove 2 points of ED, not 12. You should set the value of Hardened high enough that the average attack with one level of AP cannot remove any defense.

Second, you need to alter the rules for buying AP or Hardened multiple times. Using this rule, each additional purchase of AP increases the points removed by the same amount as the first purchase. Thus, a Blast 10d6, Armor Piercing removes 10 points of defense; if it has Armor Piercing (x2) it removes 20 points of defense; with Armor Piercing (x3) it removes 30 points of defense, and so on. Buying Hardened multiple times increases the protection it provides at the same rate.

DEFINING THE POINTS REMOVED BY THE VALUE OF THE ADVANTAGE

Instead of using the DCs of the attack, or some similar system, to quantify the value of AP, you can simply have it depend on the value of the Advantage. For example, each +¼ worth of AP might remove 8 points of defense, or 5 points, or whatever the GM thinks best. He should set the value so that one level of AP tends to remove about half the defenses of the "average" target.

MULTIPLE ARMOR PIERCING

The standard rules for Armor Piercing only allow it to halve a target's defenses regardless of how many times it's purchased — multiple purchases just counteract Hardened. However, at the GM's option purchasing AP multiple times reduces defenses by half for each purchase: to half for one purchase; to one-fourth for two purchases; to one-eighth for three purchases; and so on.

If the GM allows this, the value of AP doubles for each level purchased. The first, standard, level costs +¼. The second level costs an additional +½ (total of +¾); the third level costs an additional +1 (total of +1¾); the fourth costs an additional +2 (total of +3¾); and so on. Hardened subtracts from the purchased levels, reducing or negating the effect of AP. For example, if a character's purchased AP twice (reduce the target's defenses to ¼ normal; +¾) and he uses the attack against a target with one level of Hardened (+¼), the Hardened subtracts one level of AP, leaving one level (and thus allowing the attack to halve the target's defenses rather than reduce them to ¼ normal).

DELAYED EFFECT

If a power has Delayed Effect and 1 Charge, a character still "slot" that power more than once, unless the GM rules otherwise. Limitations apply to Delayed Effect powers at the time the power is "stored." Thus, a power with 1 Charge could only be stored once per day; storing four uses of it would take four days. But once the power's stored, it can be used at any time subject to the standard rules for Delayed Effect, and more than one can be used in a day. (The same rule applies to powers with more than 1 Charge; they can simply be stored more quickly.)

However, there may be situations in which the GM wants to restrict the number of times a Delayed Effect power can be used per day, regardless of how many times it's been stored. For example, an alchemist might "store" four Invisibility Potions, each potion with four "doses" (Continuing Charges). Rather than let the character have 16 Charges' worth of Invisibility available to him, the GM might rule that he can only use one potion per day (a total of 4 Charges). This doesn't qualify for a Limitation on the power; it's simply a campaign ground rule to keep Delayed Effect from becoming unbalancingly useful.

DELAYED EFFECT AND TRIGGER

Delayed Effect and Trigger are similar in many ways. Both allow a character to prepare a power in advance and then use it later. However, there are some important differences between them.

A power prepared with Delayed Effect has been prepared, but not yet activated and used. A power built with Trigger has been prepared and activated, but not yet used (Trigger lets a character delay the final use of the power until a set precondition is met). Thus, Delayed Effect powers can't be Drained or Dispelled — they don't "exist" yet — but powers with a set Trigger can be, since they "exist" but haven't been used.

Another difference between the two is that Trigger only works when a particular precondition occurs. Once a Trigger is set, the conditions that set it off can't be changed. On the other hand, a character can use a Delayed Effect power without having to satisfy a precondition.

Buying Triggered or Delayed Effect powers through a Focus raises certain questions — what happens if the character is Knocked Out or dies? Can he give the item to another character and let him use it? The individual Advantage descriptions address these issues to some extent, but in the end it often depends on the special effects of the power and the GM's common sense and dramatic sense interpretation. A spell stored in a wizard's head probably just fades away if he dies. But if he's used Delayed Effect or Trigger to create an enchanted elixir, that elixir may remain potent, and usable by other characters, even after he dies.

If a power with Delayed Effect or Trigger is bought in a Multipower or Variable Power Pool, the necessary reserve or pool points must be assigned to the power's slot while the power is being prepared. Once the preparations have been made and the power is ready for use, the character can switch his reserve or pool to another slot without deactivating the Delayed/Triggered power or causing it to fade.

MEGASCALE

The rules for MegaMovement state that: "A character with a MegaMovement Power such as Running or Flight is presumed to be able to perceive where he's going, avoid routine obstacles encountered during travel, and the like. If desired, the GM can have him make INT Rolls to perceive an obstacle far enough in advance to avoid hitting it, and/or a DEX Roll to turn enough that he doesn't collide with it." However, that may be "unrealistic" for games that stress a "realistic" approach to superpowers and similar abilities. In that case, you can use the following rules instead:

A character using MegaMovement may move so fast he can't perceive where he's going. Unless a character has an appropriate MegaSense, it's difficult (at best) for him to perceive where he's traveling to with MegaMovement (which may result in collisions, blind Teleportation, and the like). To prevent these problems, a character needs a MegaScaled Targeting Sense (this is an exception to the rule that characters shouldn't apply Advantages to Senses). The character usually buys the MegaScale as a naked Advantage for his Sense at the same level he buys it for his movement. (use the costs for normal Senses on 6E1 209, or the cost of a purchased Sense if appropriate). To the Active Point cost the character may apply a Limitation, *Only With MegaMovement* (-½). (Of course, a character who has a MegaSense already can just use it instead, or can decline to apply the Limitation if desired.)

If the character lacks a MegaSense, or has a MegaSense at a lesser level of MegaScaling than his movement, for every step down the MegaScale Table by which MegaMovement exceeds the MegaScaling on his Sense, he suffers a -1 penalty to make PER Rolls to see obstacles in time to avoid them. The GM may increase or decrease this penalty if appropriate. For example, it's probably not hard to perceive and avoid obstacles while running across a flat, relatively featureless desert, so the penalty would be less... but it's a lot tougher in a forest or on a city street, so the penalty might be higher. The character must make a PER Roll once per Phase when using MegaMovement; this is an Action that takes no time. If the character's PER Roll succeeds, he perceives obstacles in his path and avoids them. If it fails, the GM may require him to make a DEX Roll at the same penalty to avoid the obstacles he encounters. The GM may alter the penalty on the DEX Roll as he sees fit, or require multiple DEX Rolls if appropriate.

Example: *Kinetik has Overdrive Running, defined as five levels of MegaScale (1m = 10,000 km; +2) for his Running. That means he needs a similarly-MegaScaled Sense. He applies the Advantage (+2) to his Normal Sight (which has an "Active Point cost" of 35 points) for an Active Point cost of 70, to which he applies the -½* Only With MegaMovement *Limitation. That yields a Real Cost of 47 points for the ability. Kinetik now need not fear colliding with obstacles as he jogs around the planet.*

Suppose, however, that he only bought a MegaSense at the +1¼ level (1m = 10 km). Since his MegaMovement is three levels below that on the table, he'd suffer a -3 to his PER Rolls to avoid obstacles.

MULTIPLE SPECIAL EFFECTS

Value: +¼ for an additional Uncommon special effect; +½ for an additional Common special effect; +¾ for an additional Very Common special effect

This optional new Advantage represents a power that manifests with two special effects simultaneously. It's not required for powers that have different "origin" and "manifestation" special effects, such as a Fire Blast that's a Magic spell (it originates as Magic, but manifests as Fire). This Advantage is for a power that has two manifestation special effects at once — for example, a "Solar Flare Blast" that manifests as both Fire and Radiation simultaneously.

Refer to the Vulnerability Frequency table (APG 152) to determine the frequency with which the power's two special effects appear in the campaign (and check with the GM to make sure he hasn't altered the table for his campaign setting). The most common of the two (if they differ) is the base special effect, and the character pays for the other based on its frequency: +¼ for an Uncommon special effect; +½ for a Common special effect; and +¾ for a Very Common special effect. The GM may rule that some special effects are incompatible and cannot be "combined" into one attack with this Advantage (for example, Fire/Heat and Ice/Cold, Holy and Unholy, Darkness and Light).

If a power with Multiple Special Effects has one special effect that works against Energy Defense, and one that works against Physical Defense, the attack applies against the *lower* (or worse) of the target's two categories of defense. However, at the GM's option a character can take Multiple Special Effects at the +¼ level for a single special effect to represent the fact that it can work against *either* Physical or Energy defenses (for example, an Ice/Cold attack that could be a dart made of ice (Physical) or a beam of pure Cold [Energy]). In that case the character chooses, from Phase to Phase, which defense applies against his attack.

If a target has a Limited form of defense that only applies to one of the special effects in a

Multiple Special Effects attack (such as Damage Reduction that *Only Works Against Fire* when hit by an Electricity-and-Fire/Heat attack), then that defense applies to the Multiple Special Effects attack in its entirety, as if the attack were just the one special effect. This remains true even if a target has two Limited defenses, one of which only works against Special Effect A and one only against Special Effect B — the target gets to apply them all against the Multiple Special Effects attack.

A power with Multiple Special Effects can trigger Vulnerabilities, Susceptibilities, or Limitations as if it were either of its manifestation special effects. In the event that a target is somehow unusually affected by *both* special effects, he suffers the worst of the two. For example, if a character with 2 x BODY from Fire/Heat attacks and 1½ x BODY from Radiation attacks is hit with a Fire-and-Radiation attack, he takes 2 x BODY damage.

At the GM's option, a character can take this Advantage more than once, thus giving a power three, four, or more manifestation special effects simultaneously. The cost remains the same; for example, if a characte has a Very Common special effect that also manifests as a Common, an Uncommon, and another Uncommon special effect, he pays a total of a (+½ + +¼ + +¼ =) +1 Advantage. The GM can also decide to "cap" the value of Multiple Special Effects at some level (such as +2), at which point it functions as all special effects (or some large subset of all special effects, such as "All Magic," "All Energy," or "All Technology") simultaneously.

MULTIPLE SPECIAL EFFECTS AND POWERS

An attack with Multiple Special Effects is still only one attack, not two. Thus, it can only be Absorbed from once (even if the target has multiple Absorption powers), can be used as one part of a Multiple Attack, and so forth. In situations where the two special effects in a Multiple Special Effect attack would interact with a Power or game element differently, the GM should interpret the situation in the best way for the target and the worst way for the character using the Multiple Special Effect attack. For example, suppose a character has a Physical-and-Pulson Energy attack defined as a thrown metal disk imbued with pulson energy. A target using Deflection can Deflect that's Limited so that it only works against thrown weapons can Deflect this attack even though it's partially an energy "beam."

MULTIPLE SPECIAL EFFECTS AND AVAD

If a character has a Multiple Special Effects attack that's also an AVAD, he must specify a different defense for each of the special effects involved. If a target has *any* of the specified defenses, he can apply it to reduce the AVAD's damage (or to negate an NND entirely).

MULTIPLE SPECIAL EFFECTS AND VARIABLE ADVANTAGE

Characters cannot take Multiple Special Effects for a power via the *Variable Advantage* Advantage unless the GM specifically permits them to.

MULTIPLE SPECIAL EFFECTS AND VARIABLE SPECIAL EFFECTS

If a power with Multiple Special Effects has the *Variable Special Effects* Advantage at the +½ level, the character can switch the two (or more) special effects of the power using the standard rules for Variable Special Effects.

PENETRATING

If applied to a continuing-effect Mental Power, Penetrating guarantees that a certain number of points of effect will always be compared to the target's EGO to determine if the character achieves his desired effect. It doesn't reduce the amount needed to achieve a given effect, or guarantee that a certain level of mental contact can always be achieved.

PROPORTIONAL

Value: Varies

This optional Power Modifier — sometimes an Advantage, sometimes a Limitation — makes a power more or less effective in certain defined circumstances. For example, a power might be twice as effective at nighttime, or only have half effect against dwarves. The value of Proportional depends on two factors: first, the commonality or frequency of the circumstance which triggers the proportionality; second, the extent to which the ability gains (or loses) power.

THE *PROPORTIONAL* ADVANTAGE

The accompanying table lists the suggested values for Proportional as an Advantage. You start by determining the value for how many more Character Points' worth of effect the character has, then apply a value modifier based on how often he has access to that extra power. For example, suppose a werewolf has 20 STR (cost: 10 Character Points). He wants to have twice as much effect — 20 Character Points' worth of STR, or STR 30 — at night. That's a two times increase in power (+1 base Advantage) which applies about half the time (½ less Advantage). That's a total of a +½ Advantage on his STR, so his STR with Proportional increase costs (10 x (1 + ½)=) 15 points.

As indicated in the Commonality/Frequency section of the table, a Proportional Advantage shouldn't apply more than about half the time. Otherwise, it's too similar to being at greater power all of the time. The better approach in that case is to buy the power at its maximum desired effect, then use the *Proportional* Limitation to define those few circumstances in which the ability works at lesser effect. If the application of the Commonality/Frequency modifier would mathematically turn the Advantage into a Limitation, that's a good indication you ought to use the *Proportional* Limitation instead. See the continuation of the werewolf example below for further discussion.

THE *PROPORTIONAL* ADVANTAGE

Value	Increase In Power Or Ability
+½	Ability has up to 1.5 times as many Character Points' worth of effect
+1	Ability has two times as many Character Points' worth of effect
+2	Ability has three times as many Character Points' worth of effect
+3	Ability has four times as many Character Points' worth of effect
+4	Ability has five times as many Character Points' worth of effect
	...and so on

Value	Commonality/Frequency Of Increase
2 less Advantage	Very Uncommon (character rarely, if ever, gets the increase in power)
1½ less Advantage	Uncommon (character gets the increase in power about a fourth of the time)
1 less Advantage	Common (character gets the increase in power about a third of the time)
½ less Advantage	Very Common (character gets the increase in power about half the time)

The minimum value of the *Proportional* Advantage is +¼, regardless of the subtraction applied for commonality/frequency.

THE *PROPORTIONAL* LIMITATION

Proportional as a Limitation is really just a form of partially-Limited Power (see 6E1 366). You buy the unaffected portion of the ability normally, then apply a *Limited Power* Limitation to indicate the reduced effectiveness of it in certain situations (or the fact that it only works in specific circumstances). For example, suppose a werewolf has 30 STR (cost: 20 Character Points), but that full level of STR only applies during the full moon. The rest of the time, he has 20 STR. That means you buy him STR 20 normally (total cost: 10 Character Points). Then buy him +10 STR with the Limitation *Only Works During The Full Moon* (-4) (total cost: 2 points).

MULTIPLE PROPORTIONALITY

A character might want to have multiple levels or types of proportionality. For example, a character's STR might wax and wane as the moon waxes and wanes — he'd be his strongest at the full moon, then slowly become weaker until the new moon (when he'd be at his weakest), then get stronger again as the moon became larger in the sky. Or, like Sir Gwethon above, the character might be more powerful in some circumstances, and less powerful in others.

In this case, the player and GM should work together to decide two things: first, whether the power is overall stronger or weaker than just having an unmodified ability; second, the degree to which it's better or worse. Then determine the value of the *Proportional* Modifier in the usual way.

REDUCED ENDURANCE

Characters cannot buy Reduced Endurance (½ END; +¼) for powers that only cost 1 END. Those powers can only be reduced to 0 END with the +½ version of the Advantage.

DELAYED ENDURANCE COST ⚠

At the GM's option, characters can apply the Advantage *Delayed Endurance Cost* to Constant powers. For a +¼ Advantage, the character pays the END cost for the power once per Turn. He first pays the END in the Phase when he uses the power, and in later Turns pays the END on Segment 1 (the GM may, if he wishes, he may have the character pay END again 12 Segments after he first uses the power, rather than on Segment 1). The power remains in effect for the entire Turn, unless the character (a) voluntarily deactivates it, or (b) is Stunned or Knocked Out (in which case the power stops functioning at the end of that Segment, per the normal rules). If the character wants to use the power again after it deactivates for any reason, he must pay the END cost for the Turn again.

For a +½ Advantage, the character only pays the END cost for the power once per Minute (or any time interval longer than 1 Turn the GM agrees to). The cost doesn't increase beyond +½ because paying END even at long intervals is still more restrictive than paying no END (which costs +½).

Delayed Endurance Cost is most appropriate for Heroic games (such as for certain spells in Fantasy Hero campaigns). The GM should consider carefully before letting Superheroic characters take it, since for high-SPD characters even the 1 Turn level may be much more effective than Reduced Endurance (½ END).

TIME LIMIT

If you like the idea of having a specific Time Limit for spells, but don't want to use the *Time Limit* rules set forth above, here are some other ways you could build a Time Limit into a spell:

- use Uncontrolled, but revise the rules for it so that as most it's only a +0 Advantage for Persistent Powers (which would ordinarily last longer than the duration). It might even be a Limitation, if the duration is particularly short compared to how long the power usually lasts.
- make the power Persistent, but with a Limitation (not to exceed -¼ in value) that the spell stops functioning after some defined time period.

TRIGGER

Characters cannot put Trigger on REC to get "instant Recoveries." Trigger cannot override the standard rules for taking a Recovery.

A Triggered power cannot activate or come into effect before the phenomenon that Triggers it. Thus, absent GM permission, setting a defense to Trigger when a character's hit by an attack won't work — at least, not if you want the defense to apply to the attack that Triggered it. However, assuming the ability is constructed in a reasonable, balanced manner, the GM may be willing to overlook this technicality in the interest of fun game play.

If a Triggered power is in a Power Framework slot, if the power Triggers while the Framework is not allocated to that slot, then the Trigger will not reset, even if it's an "automatically resets" Trigger. The Framework has to be allocated to the Triggerable power for it to reset. Furthermore, unless the GM rules otherwise, enough of the Framework's reserve/pool has to be allocated to the slot to allow for the full Triggerable power to work, even if it's a Flexible slot.

USABLE ON OTHERS

Usable As Attack cannot be combined with AVAD so that even if a target has the specified "reasonably common and obvious defense," some portion of the attack still affects him.

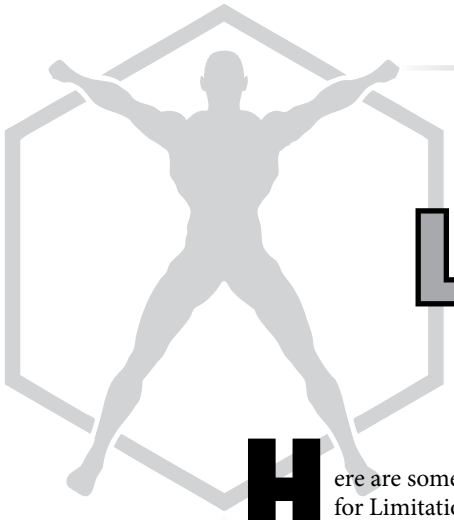
The rules for UOO limit the mass of objects a power can be "granted" to (see 6E1 355). This rule exists to preserve game balance; otherwise a character with just a few Character Points' worth of Flight, Usable As Attack could lift battleships! It leads to some logical "disconnects" ("Why does this power work on GraniteMan, who weighs ten tons, but not on a 200 kg motorcycle?"), but on the whole it works well. However, if the GM believes his PCs won't abuse the privilege of easily affecting large/heavy objects, he can ignore the rule and allow a UOO power to apply to any size/weight object.

If a UOO power has Charges, that indicates how many times per day the character can "grant" it to other characters — the recipient(s) can use it as per normal for a UOO power, they're not restricted by Charges. If you want to design a power that imposes Charges on the recipient rather than on the grantor, that would have to be specified when the power is built/purchased. If Charges apply to both, the Limitation can be taken twice, unless the GM rules otherwise. The "differing modifiers" rules may also come into play in this situation.

A character might buy a Usable By Other powers through a Focus — an item he gives to the character he grants the power to. This doesn't negate the need to maintain Line Of Sight, or change the maximum range of the power. (However, the GM could allow that anyway, if he felt the character wouldn't abuse the privilege.)

VARIABLE ADVANTAGE

If a character has Variable Advantage (+½ Advantages; +1) and has separately bought Reduced Endurance (0 END; +½) for his power, and he uses Variable Advantage for Autofire (5 shots; +½), the END cost for the power is half the normal END cost per shot. A +½ *Reduced Endurance* Advantage for an Autofire power is the equivalent of the +¼ *Reduced Endurance* Advantage for a normal power.



LIMITATIONS

Here are some additional rules and options for Limitations.

TEMPORARILY REMOVING LIMITATIONS ⚠

With the GM's permission, a character can buy the ability to temporarily "remove" or "negate" a Limitation on a power. For example, a character might have a power with the Limitation *Only Works At Night,* but that Limitation doesn't apply if he holds a mystic focusing crystal (a Focus).

To do this, re-calculate the cost of the power without the Limitation. Then subtract the cost of the power with the Limitation from that amount, and that tells you the cost of "buying off" the Limitation. It's up to the GM to determine the specifics of such an ability, but typically a "negated Limitation" should be treated like a naked Advantage.

Example: *Volsitrion the Wizard has this power: Mystic Blast: Blast 10d6 (50 Active Points); Gestures (-¼), Incantations (-¼), Increased Endurance Cost (x3 END; -1), Requires A Magic Roll (-½) (total cost: 17 points). He wants to remove the Increased Endurance Cost when he has his magic staff (the special effect being that the staff makes casting the spell less stressful, or that the staff itself provides the power for the spell, or the like). Without that Limitation, the spell would cost 25 points instead of 17.*

So, he then buys: remove Increased Endurance Cost (x3 END; -1) from Mystic Blast (8 Active Points); OAF (-1) (total cost: 4 points). Altogether these two abilities cost him 21 points.

CHARGES

If a character has a power with Continuing Charges that Costs Endurance, he must pay the END cost for the power every Phase he uses it.

If a character buys a Continuing Charge with a long duration for a Constant Power, he cannot turn the Power on and off at will for the duration of the Charge. If a character buys Continuing Charges for any Constant or Persistent Power, each use of the Power requires the expenditure of 1 Charge. If the Power is one the character can alter or turn on and off at will (such as Growth, Shape Shift, or Shrinking), then any "use" of it constitutes using 1 Charge. For example, if a character has Shape Shift, 4 Continuing Charges (1 Hour each), when he activates the Power and alters his form he uses 1 Charge. He remains in Shape Shifted form for 1 Hour, at which point he reverts to his standard shape. If at any time during that hour he wants to change shape again, that's another "use" and requires him to expend another Charge. To create a power that can be turned "on" and "off" within the duration of a Continuing Charge, consider the *Fuel Charges* option (6E1 370).

A Charge last for the character's Phase. After that Phase ends, so does the Charge, and thus any power that it "fuels." For a Constant or Persistent Power (like Change Environment or Resistant Protection) would last for 1 Phase per Charge, and no longer. If activated on the character's Phase in Segment 3, Resistant Protection with Charges stops working when the Phase ends, which means it's not active and doesn't protect the character in Segment 4 (and not even for part of Segment 3, if some characters got to act before he did). If the character wants it to remain active and keep protecting him in later Segments, he has to expend another Charge; he's allowed to do this even if he doesn't have a Phase that Segment.

CONSERVED CHARGES

Sometimes a device, power, or ability needs Charges to represent the fact that it gets used up, runs out of power, or the like — but not every use of the device, power, or ability should necessarily consume a Charge.

Consider, for example, the *macahuitl* — the Aztec "sword," consisting of a sort of wooden club with razor-sharp bits of obsidian set into each edge. The obsidian blades become dull from repeated use, which you can represent with Charges... but not every "activation" of the macahuitl uses up a Charge. Sometimes an attack misses, or cuts through so cleanly that it doesn't dull the stone.

In *HERO System* terms, you can simulate this with *Conserved Charges,* which reduces the value of Charges based on how likely it is that any given activation of the power will use up a Charge. The reduction listed in the accompanying table is based on a roll — the GM makes the roll each time the character activates the power, and if he rolls less than or equal to that number, a Charge is consumed.

Alternately, you can define circumstances in which a Charge is or is not used up, and assign a Limitation value to that based on the rolls listed in the table. With the macahuitl, for example, you might define it this way: activating the power uses up a Charge if the Attack Roll indicates a hit, the Attack Roll misses by only 1 or 2, the attack is Blocked, or the circumstances otherwise indicate the obsidian blades have impacted something hard enough to chip or dull them. The GM assigns this a value of ½ less Limitation, similar to an 11- roll.

CONSERVED CHARGES

Roll	Reduction In Value
14-	¼ less Limitation
11-	½ less Limitation
8-	¾ less Limitation

This reduction in value can convert Charges from a Limitation to an Advantage.

CONCENTRATION

The PER Roll penalty imposed by Concentration applies to all Senses, including Danger Sense, Combat Sense, and Enhanced Senses a character purchases. This remains true even if the Limitation's taken for a purchased sensory ability.

EXTRA TIME

Extra Time is a valid Limitation for Persistent Powers, unless the GM rules otherwise. The main issue is whether the power is one that's likely to be used in combat. If the power is one that a character could turn on out of combat and then maintain all day without effort (such as Damage Reduction or Mental Defense), then Extra Time may not actually restrict him at all, which reduces the value of the Limitation to -0. On the other hand, if this power is one a character tends to activate only in combat, then Extra Time still restricts him and is a legitimate Limitation.

In some situations characters may want to take Extra Time as a Limitation for abilities that inherently take more than a Half Phase to use (for example, Extra-Dimensional Movement, which by default requires a Full Phase Action to use). In that case, they can only take Extra Time if they specify a time period greater than the ability's standard. If appropriate, the GM may reduce the Limitation's value to represent the fact that it's less restrictive than normal.

At the GM's option, a character can use other Attack Powers during the Extra Time period if he takes the Limitation at half value.

A Constant or Persistent power that requires a Delayed Phase throughout means it activates each Phase on the character's DEX divided by 2 (for example, DEX 10 if he has DEX 20). If the Limitation applies only to activating the power, but not using the power thereafter, reduce the Limitation value to -0.

FOCUS

There are occasions where an opponent attacks a character's Focus specifically, rather than the character himself. As noted in the rules, this usually entails a -2 OCV penalty (though the GM may adjust this based on the size and nature of the Focus, if desired). Typically an attack on a Focus doesn't damage or affect the character using the Focus in any way, but the GM has to make the decision based on the nature of the attack, the type of Focus, and similar factors.

An attack on a Focus usually does no Knockback. However, if desired the GM can roll the Knockback damage dice (if any) and treat the BODY rolled as the "STR" for a Disarm, with the gadget's owner rolling his STR dice to see if he can hold onto the Focus in the usual manner for Disarms. If the Focus isn't one that's held (for example, it's worn, or is attached to the character somehow), the GM can either use the character's STR, or assign the Focus a "STR" for these purposes.

LIMITED POWER

Here are two forms of Limited Power showing how flexible this Limitation can be.

DELAYED USE

A power with this Limitation cannot be used until a certain amount of time has passed since it was last used. This can represent a "cooldown" period before a weapon can be fired again, a mystical restriction that prevents a spell from being cast more than once per hour, or the like. If a power cannot be used for 1 extra Phase after it was last used (*i.e.,* it can't be used in consecutive Phases, just every other Phase), Delayed Use is a -¼ Limitation. For each additional step down the Time Chart, the value of the Limitation increases by ¼ (thus, -½ for 1 Turn, -¾ for 1 Minute, -1 for 5 Minutes, and so on).

Delayed Use is most appropriate for attacks and other abilities that a character could typically use repeatedly or at will. If a power isn't one a character would use that way, the GM may reduce the value of the Limitation, even to -0.

DETERIORATION

Deterioration is a form of Limited Power appropriate for Powers and other abilities that rate their effectiveness with defense or BODY (*e.g.,* Barrier or Entangle). It represents the fact that the power loses some of that effectiveness over time, regardless of whether it's damaged or not. (Of course, it can lose BODY much more quickly if damaged, or defense if subjected to a Drain PD or the like.)

The character must choose whether the power loses 1 PD/1 ED or 1 BODY every time increment when he buys the power, and can't change that thereafter. (At the GM's option, a power can alternate, losing 1 PD/1 ED one increment, then 1 BODY the next, and so on.) If a character wants a power to lose *both* defense and BODY, he can take the Limitation twice.

Losing 1 PD/1 ED or 1 BODY per Turn is a -¼ Limitation. Losing 1 PD/1 ED or 1 BODY per Phase is a -½ Limitation. Losing 1 PD/1 ED or 1 BODY per Segment is a -1 Limitation. Losing defense or BODY at a slower rate (per Minute, or longer) is a -0 Limitation.

LINKED

If a character Links an attack to another attack, and the Linked attack has Charges, the character doesn't have to use a Charge until he actually succeeds with the main attack in a way that would let him use the Linked attack and chooses to use the Linked attack. The most common example of this is a poison attack Linked to a weapon (such as a dagger, or a monster's fangs).

If a character Links two attacks that both have Autofire, but they have different rates of Autofire, when he uses them together both attacks must use the same number of shots, fired at the same targets. That means the attack with the higher rate of Autofire can't ever use its full Autofire unless it's the greater power (and thus can be used without the lesser power).

A character can "chain-Link" powers, so that the lesser power in the first greater + lesser combination serves as the greater power for a second combination. For example, a character could have a Blast 10d6 plus a Drain 3d6, Linked. He could then Link a Flash 4d6 to the Drain. He can use the Blast + Drain without using the Flash, but he has to use the Drain to use the Flash, and he can't use either of them without using the Blast.

REQUIRES A SKILL ROLL

Here are some additional options and rules for Requires A Roll.

LUCK AS A REQUIRED ROLL

Instead of using a Skill or similar ability, a character could define his Required Roll as a Luck roll. If one level of Luck is required to use a power, that's a base -1 Limitation; two levels is a -1½, and three or more levels a -2. This is an unmodified roll, not subject to Active Point penalties or similar modifiers, and only has to be made once (when activating the power). Characters can apply other appropriate Requires A Roll value modifiers to alter the base value of a *Required Luck Roll* Limitation.

PROPORTIONAL RESULT

As a variant on Requires A Roll, a character can also define how much of a power he can use depending on how well he succeeds with the roll. The more power he can use, the greater the alteration in the Limitation's value, as shown in the accompanying table. The amount of power listed is a guideline; the GM can adjust it to suit specific powers, make sure characters can get whole dice of effect for each point a roll succeeds by, or the like.

Example: *The Harbinger of Justice wants to buy some extra Combat Skill Levels with Firearms that depend on how well he succeeds with a Required Shooting Tricks Roll. He buys +6 with Firearms (30 Active Points) with the Limitation* Requires A Shooting Tricks Roll *(Proportional (33%; -¾). If he makes his roll exactly, he can use +2 CSLs; if he makes it by 1, he can use +4 CSLs; if he makes it by 2 or more, he can use all +6 CSLs.*

PROPORTIONAL RESULT TABLE

Value	Amount Of Power Usable
1 more Limitation	Character can use up to one-tenth (10%) Active Points' worth of the power if the roll succeeds exactly, plus up to another one-tenth Active Points' worth per point the roll succeeds by
½ more Limitation	Character can use up to one-fifth (20%) Active Points' worth of the power if the roll succeeds exactly, plus up to another one-fifth Active Points' worth per point the roll succeeds by
¼ more Limitation	Character can use up to one-third (33%) Active Points' worth of the power if the roll succeeds exactly, plus up to another one-third Active Points' worth per point the roll succeeds by

Note: Regardless of how well a Required Roll succeeds by, a character cannot use more Active Points' worth of a power than he's paid for.

ENHANCED SUCCESS ⚠

Related to the Proportional variant for Requires A Roll is the possibility of *Enhanced Success.* This means that the power functions at full power if the roll succeeds exactly, and gains in power if the roll succeeds by more.

For ¼ less Limitation, the power gains +5% Active Points for every point the roll succeeds by, to a maximum of +25%.

For ½ less Limitation, the power gains +10% Active Points for every point the roll succeeds by, to a maximum of +50%.

For 1 less Limitation, the power gains +20% Active Points for every point the roll succeeds by, to a maximum of +100%.

REDUCED EFFECT FOR FAILURE ⚠

Another possible option for Requires A Roll is for the GM to allow the power to function even if the character fails the roll, but at a reduced effect.

For ¼ less Limitation, if the Required Roll fails the power still works, but at only 25% (one-fourth) of its Active Points.

For ½ less Limitation, if the Required Roll fails the power still works, but at only 50% (one-half) of its Active Points.

For 1 less Limitation, if the Required Roll fails the power still works, but at only 75% (three-fourths) of its Active Points.

SELF ONLY

If a Power that normally requires an Attack Action and/or an Attack Roll to use has the *Self Only* Limitation, it still requires an Attack Action to use (and also an Attack Roll, though the GM can waive that if desired).

SIDE EFFECTS

One common Side Effect for many powers is Drain. For example, failing a Magic roll when casting a spell may daze, fatigue, or even hurt a wizard (Drain STUN, END, and BODY, respectively). There are no hard-and-fast rules for how long the Drain's effects should last; as usual, it's up to the GM to decide if a Limitation is sufficiently restrictive to justify its value. In some cases the standard 5 Character Points/ Turn rate works fine; in other cases the GM may want a slower return rate. Since delaying the return rate increases the Active Points of a Drain, and the Active Points in the Side Effect determine its value, in some cases the player may want to delay the return rate to get a higher Limitation value.

Sometimes a character wants to have several powers that all have the same Side Effect (for example, because the same Focus generates all the powers, or all the powers are learned from a common source). Typically as long as using any power can trigger the Side Effect, every power that could possibly do so gets the Limitation. However, the GM's well within his rights to forbid this if the character isn't any more hindered or restricted by having the single Focus (or whatever) provide multiple abilities. For example, suppose a set of gloves provides Resistant Protection and Life Support and are so bulky they impose a -3 on all DEX-Based Rolls. Because both of those powers are Persistent, having both active at once doesn't restrict the character any more than just having one of them active would. Therefore the GM might rule that only one of the powers (chosen by the player) could take Side Effects.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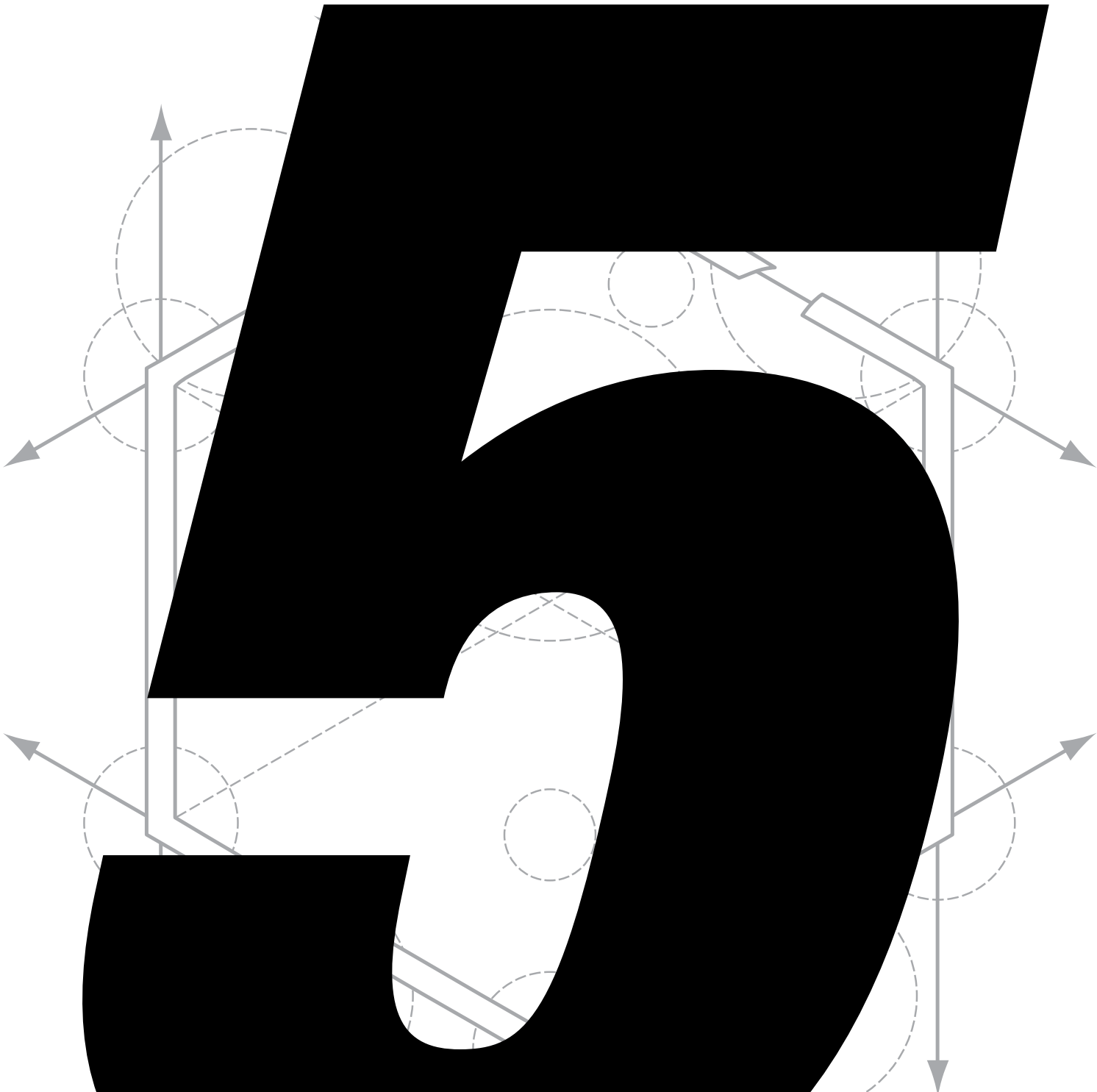
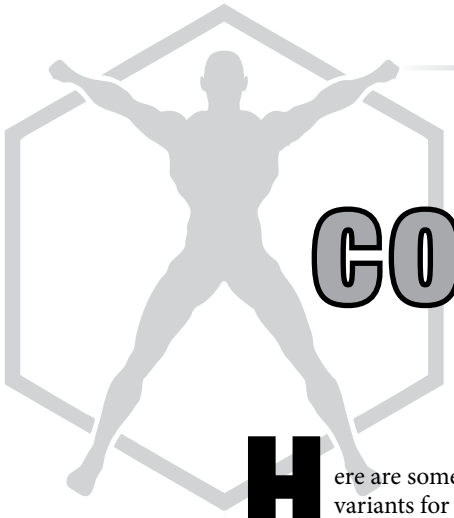


CHAPTER FIVE
COMPLICATIONS



COMPLICATIONS

Here are some additional options, rules, or variants for various Complications.

ACCIDENTAL CHANGE

In some campaigns the GM may want to expand some aspects of Accidental Change using the optional rules in the accompanying Expanded Accidental Change table. This would be most appropriate for games where most or all characters have this Complication, such as a campaign where all the PCs are werewolves.

EXPANDED ACCIDENTAL CHANGE

Cost	Circumstances
5	Uncommon Circumstance
10	Common Circumstance
15	Very Common Circumstances
Cost	**Chance To Change**
+0	Infrequently (8-)
+5	Frequently (11-)
+10	Very Frequently (14-)
+15	Always
Cost	**Length Of Exposure Required**
-0	Segment or less
-5	Extra Phase
-10	1 Turn
-15	1 Minute
	...and so on down the Time Chart
Cost	**Time Required To Change**
-0	Immediately (as soon as roll is failed)
-5	Character's next Phase after roll is failed
-10	1 Turn after roll is failed
-15	1 Minute after roll is failed
	...and so on down the Time Chart

As always, the minimum value of Accidental Change is 0; it cannot cost a character points.

First, some forms of Accidental Change may require more than a Phase's worth of exposure to the phenomenon or event that triggers the change. Under the standard rules, a character rolls his Accidental Change every Phase, but for a lesser Complication value a character can define a longer initial exposure and time between rolls.

Second, some Accidental Changes may not occur right away; instead, the character changes slowly but surely (which may give him time to get to a place where no one can see him change, or potential victims the chance to escape). As a default, the change takes place immediately. For a lesser Complication value, the character lengthens the time it takes to change. The change begins as soon as he fails his Accidental Change roll. If the character is removed from the phenomenon or event that triggers the change during the change period, he may make another Accidental Change roll. If he *fails* that roll, the change stops — he's brought himself under control. (If the character Always changes, he has no chance to fail to change: once something triggers the change, it inevitably occurs after the defined time period passes.)

OTHER RULES

If a character has several possible forms, with the GM's permission he can choose Accidental Change more than once to define different circumstances that will trigger a change to different forms. Alternately, the GM may simply require him to increase the frequency with which Accidental Change occurs.

Nothing in the rules for Accidental Change requires the character perceive (or be able to perceive) the triggering effect for the Change. It's all a question of how the trigger is defined, which affects the frequency of the Complication. "During the full moon" is a more frequent condition than "when the character perceives the full moon," for example. The former condition is much more common, and would affect a character who is, for example, underground or temporarily blinded; the latter condition only affects a character who actually perceives the moon with a Targeting Sense.

DISTINCTIVE FEATURES

Here are some additional guidelines to make it easier for the GM to determine the effect of Distinctive Features.

At the +0 points level, *Noticed and Recognizable,* the Distinctive Feature makes the character stand out from the crowd in unpleasant or inconvenient ways. He suffers a -1 penalty on Interaction Skill rolls that could be affected by his appearance, and characters receive a +1 to INT Rolls to remember and describe his appearance later on. If a character perceiving him has a Psychological Complication pertaining to his appearance (such as *Racist* or *Hatred Of Orcs*), the perceiver receives a further -1 to his EGO Roll to resist giving in to that Psychological Complication.

At the +5 points level, *Always Noticed and Causes Major Reaction or Prejudice,* the Distinctive Feature begins to cause significant problems for the character; he stands out in ways that make most people uncomfortable — if not anxious, afraid, or stressed somehow. He suffers a -2 penalty on Interaction Skill rolls that could be affected by his appearance, and characters receive a +2 to INT Rolls to remember and describe his appearance later on. If a character perceiving him has a Psychological Complication pertaining to his appearance (such as *Racist* or *Hatred Of Orcs*), the perceiver receives a further -2 to his EGO Roll to resist giving in to that Psychological Complication.

At the +10 points level, *Causes Extreme Reaction,* the Distinctive Feature evokes major negative reactions in other people. The most common is abject fear, but loathing, disgust, hatred, and lust are just a few of the other possible reactions. He suffers a -3 penalty on Interaction Skill rolls that could be affected by his appearance, and characters receive a +3 to INT Rolls to remember and describe his appearance later on. If a character perceiving him has a Psychological Complication pertaining to his appearance (such as *Racist* or *Hatred Of Orcs*), the perceiver receives a further -3 to his EGO Roll to resist giving in to that Psychological Complication (or may, at the GM's option, automatically fail the EGO Roll).

At the GM's option, some Distinctive Features, such as causing abject fear, might provide corresponding bonuses (instead of penalties) to certain uses of some Interaction Skills, primarily Interrogation. If a character is displeasing or terrifying to be around, a victim may provide information sooner to make him leave! If this occurs frequently in the game, the GM may want to require the character to pay Character Points for a *Striking Appearance* Talent to represent the bonus — while a Complication can *occasionally* help a character out in minor ways, it shouldn't benefit him on a regular basis.

"POSITIVE" FEATURES

Most Distinctive Features are ones people would automatically regard as negatives — a frightening appearance, extreme hideousness, extensive scarring, a repulsive body odor, an aura of evil. Some are "neutrals," such as wearing a uniform, radiating a mystic aura, or having an "ego signature": they inconvenience the character, but they're not automatically regarded as "bad" *per se* by everyone. (In fact, some, like membership in the military, may be regarded positively by many members of society.)

A few Distinctive Features are attributes that would normally be regarded as "good" or "positive" ones. The most common of these is Extreme Beauty, but other characters might have unconcealable auras of holiness, an alluring scent, or the like. When a character wants a "positive" Distinctive Feature, you need to do two things. First, you have to define what's so restrictive or inconvenient about this "positive" feature that it's a justifiable choice as a Complication. For example, an Extremely Beautiful woman might have to put up with men constantly hitting on her, other women suffering intense jealousy of her, people not paying attention to her because they think she's a "ditzy blonde," and so forth. Someone with an "aura of holiness" may constantly attract people desiring healing or blessings who get in his way. If the effects don't seem that disadvantageous, the GM should reduce the value of the Distinctive Feature appropriately.

Second, you should define, and if necessary pay Character Points for, any positive effects this positive feature has. For example, no matter how many annoying lounge lizards Extreme Beauty attracts, it has plenty of advantages, too. A character who wants to take this as a Distinctive Feature should probably pay for at least a couple levels of Striking Appearance. If a positive effect has very little game effect, the GM might not require a character to pay for it — but once again, a Complication shouldn't help a character on a regular basis.

SOCIAL COMPLICATION: MINORITY

Distinctive Features interacts in some ways with Social Complication, particularly *Social Complication: Minority.* Both affect how other characters view the character, and both tend to alter Interaction Skill rolls in some ways. The main difference between the two of them lies in the word *Distinctive* in Distinctive Features. A character who's a member of a minority is distinctive among the majority crowd, but not necessarily distinctive among his own people or immediately recognizable or describable by someone else ("All those Chinese look alike to me"). On the other hand, a character with Distinctive Features isn't necessarily a member of a minority, nor discriminated against because of his race or other attributes, but he's definitely memorable, easily described in some ways, and liable to stand out even in a crowd of like people.

In some campaigns, the GM might want to consider a +0 Reaction level, *Feature makes character Stand Out.* This means he's easy to recognize and describe (+1 to INT Rolls), but doesn't necessarily suffer any penalties to Interaction Rolls due to his appearance. This would be appropriate for games in which one character really stands out (*e.g.,* a Masai warrior PC in a game set in 1870s Hong Kong; a character who's one of the few four-armed Catavalans on Earth) but isn't necessarily restricted by his appearance beyond being remembered. If there's nothing about the character that's memorable — he's Masai or Catavalan, but doesn't stand out in a group of them — then he's probably not entitled to a *Distinctive Features* Complication at all. Remember, just "looking different" isn't disadvantageous; the character has to suffer some hindrance because of his appearance on a fairly frequent basis to qualify for Matching Complication points.

ENRAGED/BERSERK

Despite this Complication's name, you can use it to reflect things other than anger — panic, enthusiasm, conditioned reflexes, triggered lunacy, or any other way a character could lose control of himself for a period of time. It could even serve as a form of extreme "Psychological Complication" in which the Enraged roll takes the place of the EGO Roll used to resist giving in to one's compulsions. It all depends on how you structure the Complication and roleplay the character. Some possible examples include:

Distraction: When the character encounters the triggering situation or phenomenon and his "Enraged" roll succeeds, he immediately stops what he's doing and begins paying obsessive attention to it. For example, a were-magpie character might be Distracted by shiny objects.

Hypnotized: When the character encounters the triggering situation or phenomenon and his "Enraged" roll succeeds, he immediately stops what he's doing and just stares at it, "hypnotized" by it somehow. Typically this leaves him vulnerable to attack (½ DCV).

Panic: The character immediately flees at top speed (or cowers helplessly) when he encounters the triggering situation or phenomenon and his "Enraged" roll succeeds. For example, a horse not trained for combat might Panic when Injured (typically Uncommon or Common, depending on the campaign) or when Confronted By Dangerous Animals (such as a rattlesnake, bear, or cougar) (typically Uncommon).

Weirdness: Instead of going Berserk, the character "goes bizarre" when he encounters the triggering situation or phenomenon — if the roll succeeds, he begins acting in a highly unusual and totally inappropriate manner. The player chooses what his character does, but it's subject to the GM's approval; Weirdness actions can't help the character in any way, and should usually hinder him (for example, by exposing him to attack).

HUNTED

Here's some more information and guidelines on Hunted:

POWER LEVEL

One of the key factors for determining a Hunted's value is how powerful the Hunted is compared to the character: More, As, or Less Powerful. It's up to the GM to determine how a potential Hunted stacks up against a Player Character, but here are some guidelines to consider.

First and foremost, look at the Total Points the two characters are built on. Typically the character with the most Total Points is the most powerful, provided there's at least 30 Total Points' difference between them (anything less than that means they're of more or less equal power). However, you should look beyond the Total Points to what they're spent on. A "normal" built on 600 Total Points that are mostly spent on business Skills, Contacts, and the like may not be nearly as powerful as a superhero built on 400 Total Points, regardless of the points disparity.

But the analysis doesn't end there. You also need to consider the nature of the campaign and how the two characters tend to "fight" one another. In a campaign focused on actual physical combat, non-combat abilities may not help a Hunter very much, and so can be ignored for purposes of determining his power level. On the other hand, in a campaign involving a lot of character interaction and social mechanisms for affecting character's lives, a businessman with 600 Total Points' worth of Contacts, Skills, and Favors may be able to make a superhero's life sheer, living hell even if he can't possibly stand up to him in a fistfight. Thus, in a modern-day campaign where there are lots of social mechanisms (government, the courts, mass media, public opinion polls...) which a Hunter can use against a PC, many (if not most) Hunters with Non-Combat Influence (see below) count as More Powerful.

The issue of power levels also comes up when an individual PC takes a group — such as the police, VIPER, the US Army, Eurostar, or the Thieves' Guild — as his Hunted. In this case, you typically consider the character as an individual (even if he belongs to a similar organization, a superteam, or the like), since the Hunted is most likely to attack him as an individual. The PC's organization may help him strike back, and even offer him some protection from the Hunted, but there are too many ways for a Hunted to affect him regardless of who his friends/employers are. Therefore an "organization Hunted" almost always qualifies as More Powerful.

NON-COMBAT INFLUENCE

As mentioned above, one important factor in ranking a Hunted's power level is whether he has *Extensive Non-Combat Influence.* It's up to the GM to decide whether a Hunter has "NCI"; here are some issues he should consider in making the determination:

- is the Hunter an individual or a group? A group is far more likely to have NCI, though a particularly wealthy or powerful individual can certainly have NCI.
- is the Hunter a branch of a government, such as a law enforcement organization, an espionage agency, a military unit, or the like? Almost by definition, government-related Hunters tend to have NCI. Law enforcement organizations — the police, the FBI, the DEA, the City Guard, the Galactic Patrol, and so on — almost always have NCI (though they may also suffer from Limited Geographical Area based on their defined jurisdiction).
- how rich is the Hunter? It's hard to have NCI without money (though not impossible). Anyone with the *Wealthy* or *Filthy Rich* levels of Money can bring a lot of pressure to bear on a PC just by hiring private detectives and mercenaries, bribing public officials to audit him, and so on.
- how socially well-connected is the Hunter? A Hunter with lots of Contacts and Favors, a good High Society roll, and the like may be able to use his "friends in high places" against a PC.
- if the Hunter has access to (or even control over some part of) the mass media in a modern-day campaign, that usually gives him NCI. Few things in modern society are as potent as being able to manipulate what people "know" from watching TV. The same might hold true in, for example, a Fantasy Hero campaign where an evil wizard can use subtle spells to influence an entire population.

SUSCEPTIBILITY

If a character has a Susceptibility that affects him on each of his Phases, he can reduce the amount of times it affects him by voluntarily lowering his SPD, just like he can slow down the rate at which he drowns, unless the GM rules otherwise for some reason.

VULNERABILITY

Many characters take Vulnerabilities. The classic example is a Vulnerability to a substance or energy type that's the "opposite" of the one the character uses/controls (such as a Fire-based character being Vulnerable to Ice/Cold or Water powers). Similarly, beings with energy bodies often take Vulnerabilities to attacks that pierce or disrupt their "energy matrix" (or the like), since that causes them greater harm than an ordinary wound (for example, the *Champions* villain Pulsar is Vulnerable to Physical Killing Attacks). But those are just two examples; the range of possible applications for Vulnerability is enormous.

Vulnerability is particularly appropriate for Comic Book Superheroes campaigns, since superpowered characters are exposed to so many more powers than characters in other genres. The table on APG 152-53 lists suggested Frequencies for various special effects, energy types, Powers, and the like for the "typical" Champions campaign (including the Champions Universe setting). The GM should review this list, then modify it to reflect his perspective and predictions on how common these elements are in his campaign, add to it and continue to change it as the campaign develops, and regularly make it available to your players.

Note that the frequency of a Vulnerability may also depend on common campaign knowledge. Silver-Based Attacks are typically Uncommon. But if they're widely known to be especially effective against werewolves, a werewolf character could justify labelling them as "Common" for Vulnerability purposes, since most of his enemies know to use them against him.

VULNERABILITY FREQUENCY TABLE

Special Effect(s)	Frequency
Acid Attacks	Uncommon
Air/Wind Attacks	Uncommon
Attacks (All), Physical/Normal	Very Common
Biological Attacks	Uncommon
Blasters (same as Particle Beam Attacks)	Very Common
Bullets	Very Common
Celestial/Solar Attacks	Uncommon
Chaos/Entropy Attacks	Uncommon
Chemical Attacks (same as Gas/Poison)	Common
Chemical Attacks, Air-Based	Uncommon
Cold/Ice Attacks	Uncommon
Cyberkinesis Attacks	Uncommon
Darkness Attacks	Uncommon
Dimensional Manipulation Attacks	Uncommon
Earth + Fire + Water Attacks	Very Common
Earth/Stone Attacks	Uncommon
Electrical + Magnetic Attacks	Very Common
Electrical Attacks	Very Common
Electromagnetic Pulses	Uncommon
Electromagnetic Radiation Attacks	Uncommon
Energy Attacks (All)	Very Common
Explosives	Very Common
Fiery Explosions	Uncommon
Fire Attacks	Common
Fire Attacks + Heat Attacks	Common
Force Attacks	Uncommon
Gas + Poison Attacks (same as Chemical)	Common
Gas Attacks	Common
Gravity Attacks	Uncommon
Gravity Attacks + Magnetic Attacks	Uncommon
Heat Attacks	Uncommon
Heat Attacks + Fire Attacks	Common
High-Tech Attacks	Very Common
Holy Attacks	Uncommon
Ice/Cold Attacks	Uncommon
Ice/Cold Attacks + Water Attacks	Common
Iron Attacks + Steel Attacks	Very Common
Kinetic Energy Attacks	Uncommon
Life Force Attacks	Uncommon
Light-Based Attacks	Uncommon
Magic, all types	Common
Magic, specific type	Uncommon
Magnetic Attacks	Uncommon
Magnetic Attacks + Gravity Attacks	Uncommon
Matter Manipulation Attacks	Uncommon
Melee Attacks, Physical/Normal	Very Common
Mental Powers, generally	Common
Particle Beam Attacks (same as Blasters)	Very Common
Physical Attacks (All)	Very Common
Plasma Beams	Uncommon
Pleasurable Attacks	Uncommon
Poisons	Uncommon
Radiation Attacks	Uncommon
Shadow Attacks	Uncommon
Silver-Based Attacks	Uncommon
Solar/Celestial Attacks	Uncommon
Sonic Attacks	Uncommon
Spirit Attacks	Uncommon
Stone/Earth Attacks	Uncommon
Technology Attacks	Very Common
Telekinetic Attacks	Uncommon
Time Attacks	Uncommon
Undead or Unholy Attacks	Uncommon
Vibration Attacks	Uncommon
Water Attacks	Uncommon
Water Attacks + Cold Attacks	Common
Wind/Air Attacks	Uncommon
Wood-Based + Silver-Based Attacks	Uncommon
Wood-Based Attacks	Uncommon
Special Situations	
Ambushes + Treacherous Attacks	Very Common
Attacks When Obviously Outclassed	Common
Electrically Grounded	
If a Flyer	Very Common
If a Non-Flyer	Common
Falling/Knockback Damage	
If a Normal Character	Very Common
If a Predominantly High-Altitude Character	Common
Struck in HTH Combat	Very Common
Specific Powers/Game Mechanics	
Armor Piercing Attacks	Common
Affects Desolidified Attacks	Uncommon
Blast	Very Common
Dispel	Uncommon
Drains	Common
Entangles, standard	Common
Entangles, EGO-Based (Mental Paralysis)	Uncommon
Flash Attacks, Sight Group	Common
Flash Attacks, all Sense Groups	Very Common
Images, Sight Group	Uncommon
Images, all Sense Groups	Uncommon
Killing Attacks, Energy	Very Common
Killing Attacks, Physical	Very Common
Mental Blast	Common
Mental Illusions	Uncommon
Mind Control	Common
Mind Scan	Uncommon
Presence Attacks, generally	Very Common
Presence Attacks From Desirable Opponents	Common
Transform	Uncommon

OPTIONAL VULNERABILITY FREQUENCY TABLE

Special Effect(s)	Frequency
Acid Attacks	Rare
Air/Wind Attacks	Uncommon
Attacks (All), Physical/Normal	Extremely Common
Biological Attacks	Rare
Blasters (same as Particle Beam Attacks)	Extremely Common
Bullets	Extremely Common
Celestial/Solar Attacks	Rare
Chaos/Entropy Attacks	Rare
Chemical Attacks (same as Gas/Poison)	Common
Chemical Attacks, Air-Based	Uncommon
Cold/Ice Attacks	Common
Cyberkinesis Attacks	Uncommon
Darkness Attacks	Uncommon
Dimensional Manipulation Attacks	Rare
Earth + Fire + Water Attacks	Very Common
Earth/Stone Attacks	Common
Electrical + Magnetic Attacks	Very Common
Electrical Attacks	Very Common
Electromagnetic Pulses	Uncommon
Electromagnetic Radiation Attacks	Uncommon
Energy Attacks (All)	Extremely Common
Explosives	Very Common
Fiery Explosions	Uncommon
Fire Attacks	Common
Fire Attacks + Heat Attacks	Common
Force Attacks	Uncommon
Gas + Poison Attacks (same as Chemical)	Common
Gas Attacks	Common
Gravity Attacks	Uncommon
Gravity Attacks + Magnetic Attacks	Uncommon
Heat Attacks	Uncommon
Heat Attacks + Fire Attacks	Common
High-Tech Attacks	Extremely Common
Holy Attacks	Uncommon
Ice/Cold Attacks	Common
Ice/Cold Attacks + Water Attacks	Common
Iron Attacks + Steel Attacks	Very Common
Kinetic Energy Attacks	Rare
Life Force Attacks	Rare
Light-Based Attacks	Uncommon
Magic, all types	Very Common
Magic, specific type	Uncommon
Magnetic Attacks	Uncommon
Magnetic Attacks + Gravity Attacks	Uncommon
Matter Manipulation Attacks	Rare
Melee Attacks, Physical/Normal	Extremely Common
Mental Powers, generally	Common
Particle Beam Attacks (same as Blasters)	Extremely Common
Physical Attacks (All)	Extremely Common
Plasma Beams	Uncommon
Pleasurable Attacks	Uncommon
Poisons	Common
Radiation Attacks	Uncommon
Shadow Attacks	Uncommon
Silver-Based Attacks	Uncommon
Solar/Celestial Attacks	Rare
Sonic Attacks	Uncommon
Spirit Attacks	Rare
Stone/Earth Attacks	Common
Technology Attacks	Very Common
Telekinetic Attacks	Common
Time Attacks	Rare
Undead or Unholy Attacks	Uncommon
Vibration Attacks	Uncommon
Water Attacks	Uncommon
Water Attacks + Cold Attacks	Common
Wind/Air Attacks	Uncommon
Wood-Based + Silver-Based Attacks	Uncommon
Wood-Based Attacks	Uncommon
Special Situations	
Ambushes + Treacherous Attacks	Very Common
Attacks When Obviously Outclassed	Common
Electrically Grounded	
If a Flyer	Extremely Common
If a Non-Flyer	Very Common
Falling/Knockback Damage	
If a Normal Character	Extremely Common
If a Predominantly High-Altitude Character	Common
Struck in HTH Combat	Extremely Common
Specific Powers/Game Mechanics	
Armor Piercing Attacks	Common
Affects Desolidified Attacks	Rare
Blast	Extremely Common
Dispel	Uncommon
Drains	Common
Entangles, standard	Very Common
Entangles, EGO-Based (Mental Paralysis)	Uncommon
Flash Attacks, Sight Group	Very Common
Flash Attacks, all Sense Groups	Extremely Common
Images, Sight Group	Common
Images, all Sense Groups	Common
Killing Attacks, Energy	Extremely Common
Killing Attacks, Physical	Extremely Common
Mental Blast	Common
Mental Illusions	Uncommon
Mind Control	Common
Mind Scan	Uncommon
Presence Attacks, generally	Extremely Common
Presence Attacks From Desirable Opponents	Common
Transform	Uncommon

OPTIONAL VULNERABILITY TABLE

Value	The Attack is
5	Rare
10	Uncommon
15	Common (a group of Uncommon attacks, or a single Common attack)
20	Very Common (a group of Common attacks)
25	Extremely Common (a group of Very Common and Common attacks)

Value	Vulnerability Multiplier
+0	x1½ (Target takes 1½x damage)
x2	x2 (Target takes 2x damage)

OTHER VULNERABILITY RULES

A character may have two or more Vulnerabilities that are affected by a single attack — for example, a character who's Vulnerable to Ice/Cold and Vulnerable to Magic could get hit by a Frost Bolt Spell. In that situation, multiply the larger multiplier by the smaller multiplier to get an overall multiplier. Thus, two x1.5 multipliers become a x2.25 multiplier, a x1.5 and x2 become a x3 multiplier, and two x2 multipliers become a x4 multiplier.

If a character has a Vulnerability to both the STUN and BODY of a particular special effect or type of attack, and is hit by a Killing Attack that exploits the Vulnerability, first determine the BODY and STUN of the Killing Attack normally. After that's done, apply the Vulnerability multiplier. For example, suppose a character who's Vulnerable to Fire (2 x STUN and 2 x BODY) is hit by a fire RKA 3d6 (a fireball). The attacker rolls his damage, getting 10 BODY and a x4 STUN Multiplier for 40 STUN. The Vulnerability now applies, doubling that to 20 BODY and 80 STUN.

In campaigns that use the Hit Location rules, apply both the Vulnerability modifier and the Hit Location modifier before taking the target's defenses into account. For example, a character hit in the Head with a Killing Attack to which he had a 2 x STUN Vulnerability would apply the x5 STUN Multiplier for the Head location, and then the x2 Vulnerability modifier.

If a character is Vulnerable to the effects of Entangles, multiply the BODY rolled for the Entangle. The PD/ED of the Entangle is not affected.

If a target is Vulnerable to a type of attack (but not to Mental Powers) and is affected by a Mental Illusion that does damage by creating an Illusion of that type of attack, the Vulnerability applies to increase the damage.

Vulnerability damage multipliers do not apply to damage from Susceptibilities, Dependences, or other Complications involving the same power/special effect.

EXPANDED VULNERABILITY

For some campaigns, the three categories of frequency — Uncommon, Common, and Very Common — may not offer enough options. The accompanying Optional Vulnerability Table on APG 153 and Optional Vulnerability Frequency Table present an expanded, five-category system for Vulnerability. Under this system, characters tend to get more points for Vulnerability than they do with the standard rules.

INCREASED MULTIPLES ⚠

At the GM's option, a character can take a Vulnerability that's even more dangerous than normal — one that does x3, x4, or more damage. For each additional point of multiple above x2 (x3, x4, x5, x6, and so forth), multiply the base value of the Vulnerability by that number (thus, a Common Vulnerability with a x3 multiplier is worth 30 points, one with x5 is worth 50 points, and so on).

EXPANDED EFFECTS FOR VULNERABILITY

The standard Vulnerability rules increase the damage done by, or other direct effect of, a given attack. For example, they multiply the damage of a Blast or RKA, the amount of "blindness" caused by Flash, and the BODY of Entangles. At the GM's option, characters can define their Vulnerability as having some effect other than increasing damage, as described in the accompanying text box. The GM can also devise other Vulnerability effects appropriate to specific characters, if desired.

VARIABLE COMPLICATION

At the GM's option, some characters might be allowed to take *Variable Complication,* a "floating Complication" the character can change. Usually this is most appropriate for characters who can change forms, states of being, or the like.

To buy Variable Complication, the character chooses a point total. He must choose one or more Complications worth *twice* that amount. For example, if a character has a 20-point Variable Complication, he must have 40 points' worth of Complications. Changing Complications requires 1 Turn, unless the GM rules otherwise.

The Complications chosen for Variable Complications must be ones that actually hinder, restrict, or complicate the life of the character. In other words, they should be Complications that could have an immediate and significant impact on the character, not ones that probably won't come into play during the (potentially short) time they affect him. Physical Complications, Susceptibilities, and Vulnerabilities are all good candidates, whereas Dependent NPCs, Hunteds, Negative Reputations, and Rivalries usually aren't. The GM determines which Complications are valid selections for Variable Complication based on the nature of the character's powers, how long he tends to keep them, and so forth.

EXPANDED VULNERABILITY EFFECTS

x1½ Value

- Character is always ½ DCV against the defined attack type (or 0 DCV, if his DCV is also being halved by some other factor)
- Character recovers from negative Adjustment Power at one step down the Time Chart (*e.g.,* 5 Character Points per Minute for a typical 5-per-Turn power)
- Character suffers a Drain of some non-damage-related Characteristic with half the Active Points of the attack
- Character suffers a Flash of an appropriate Sense Group with half the Active Points of the attack
- Character suffers an Entangle of the same special effect with half the Active Points of the attack
- Character suffers x1½ Knockback (minimum of 4m) from the attack
- Character is automatically Stunned by the attack regardless of the amount of STUN damage he actually takes
- Character automatically suffers a "run away in fear" Presence Attack of (Active Points in attack/10)d6
- Any BODY damage taken from this attack is automatically considered Impairing
- Character suffers the damage from the attack again on his next Phase

x2 Value

- Character is always 0 DCV against the defined attack type
- Character recovers from negative Adjustment Power at two steps down the Time Chart (*e.g.,* 5 Character Points per 5 Minutes for a typical 5-per-Turn power)
- Character suffers a Drain of some non-damage-related Characteristic with the same Active Points of the attack
- Character suffers a Flash of an appropriate Sense Group with the same Active Points of the attack
- Character suffers an Entangle of the same special effect with the same Active Points of the attack
- Character suffers x2 Knockback (minimum of 8m) from the attack
- Character is automatically Knocked Out by the attack (reduced to 0 STUN) regardless of the amount of STUN damage rolled
- Character automatically suffers a "run away in fear" Presence Attack of (Active Points in attack/5)d6
- Any BODY damage taken from this attack is automatically considered Disabling
- Character suffers the damage from the attack again on his next two Phases

POWER MODIFIERS FOR COMPLICATIONS ⚠

At the GM's option, characters can take Advantages or Limitations for a Complication. An Advantage makes a Complication more harmful to a character, and thus increases its value (the amount of Matching Complication points he gets for it); a Limitation makes it less harmful, and thus worth less to him.

The GM has to approve all Power Modifiers for Complications to ensure that they're reasonable, balanced, and fair. Many Power Modifier-Complication combinations simply don't make sense and can quickly be rejected on that basis. Others may be perfectly appropriate for the campaign and help make a character more fun to play.

Some examples of possible Advantages and Limitations for Complications include:

Curse Of The Night: Unluck 3d6 (15 "Active Points"); Only Applies At Night (-1). Total value: 8 points.

Greater Effect From Drains: Vulnerability: 2 x Effect from Drains (Common), Delayed Return Rate (lost points return at 5 per Minute; +1). Total value: 40 points.

Head Over Heels For Fire: Vulnerability: 2 x STUN from Fire/Heat (Common), Double Knockback (+½). Total value: 30 points.

I Just Want Your Magic Sword: Hunted: Prince Valderon (Very Frequently, Mo Pow, NCI, Capture) (30 "Active Points"); OAF (Valderon just wants the character's sword, not the character; -1). Total value: 15 points.

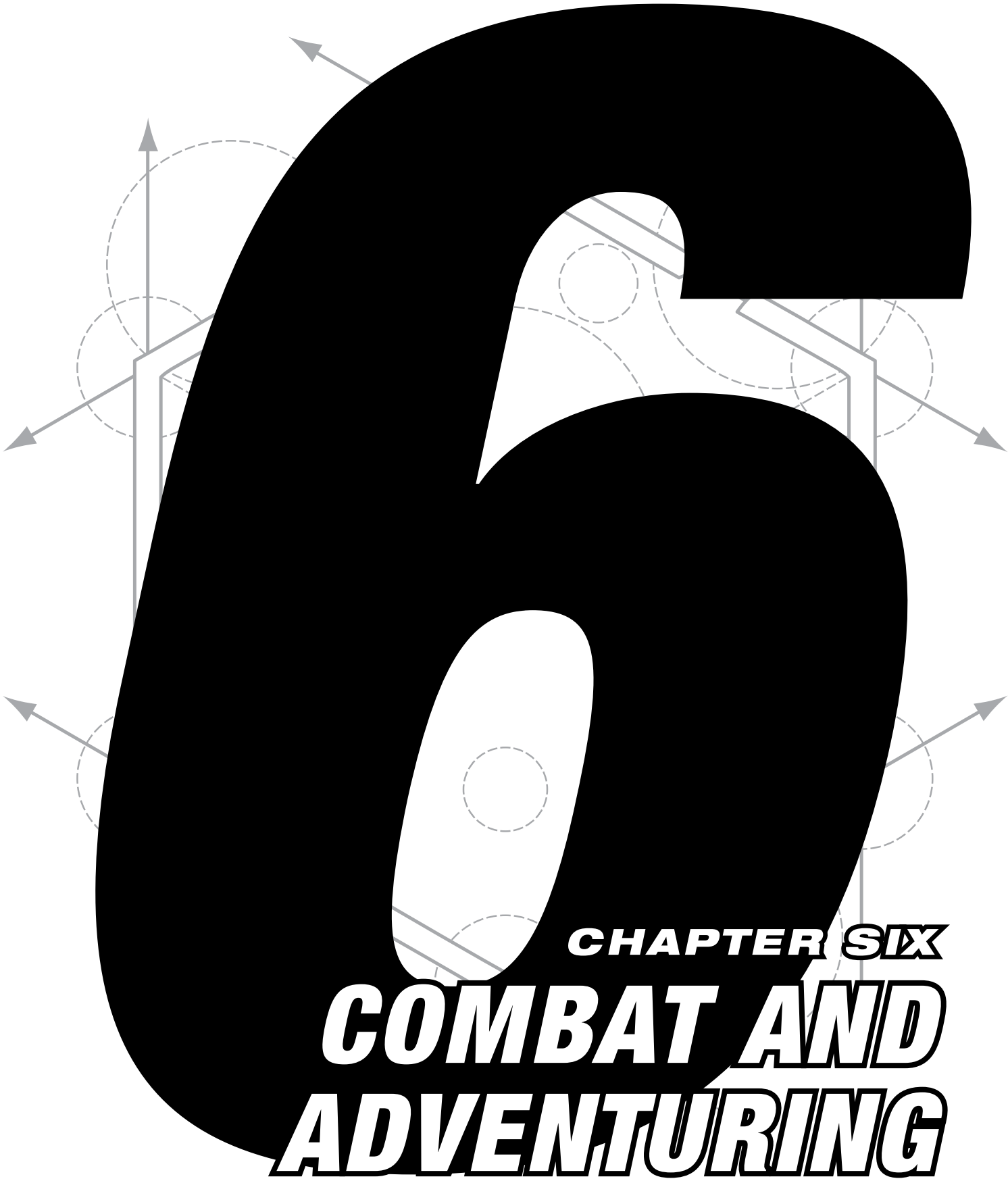
My Arms Are Energy Constructs: Physical Complication: No Arms/Hands (All The Time, Fully Impairing) (35 "Active Points"); Only Applies In Intense Magnetic Fields (-2). Total value: 12 points.

Poorly-Insulated Powered Armor: Vulnerability: 2 x STUN from Electricity (Common); Only In Alternate Identity (when wearing the armor; -¼). Total value: 16 points.

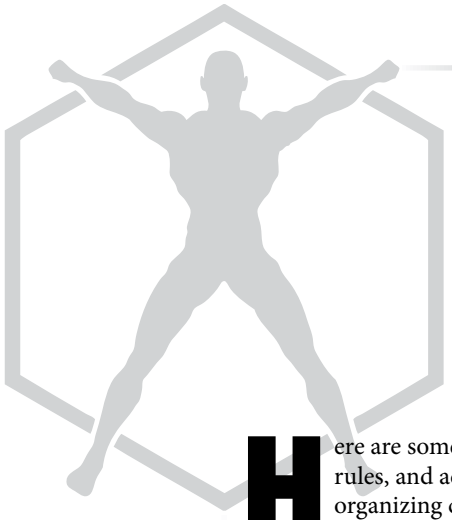
Stalked By A Shadow-Demon: Hunted: a shadow-demon (Very Frequently, As Pow, Kill) (20 "Active Points"); Only Applies At Night Or When Character's In Darkness/Shadow (-1). Total value: 10 points.

Stunning Killing Damage: Vulnerability: 2 x BODY from Physical Killing Attacks (Very Common), +2 Increased STUN Multiplier (+½). Total value: 45 points.

Of course, not all restrictions on a Complication may merit a Limitation. In some cases the GM can handle the situation by adjusting the frequency. (For Complications that don't have a varying frequency, like Unluck, assume their "frequency" is "All The Time," and then decrease the cost by reducing their "frequency.") For example, if a Hunted only exists at night (like the shadow-demon example above), the GM might deal with that by adjusting the frequency to Infrequently and keeping the special effect of the Complication in mind when he wants to use it. Similarly, the *I Just Want Your Magic Sword* Hunted could be done by changing the "Harshly Punish" (-0) modifier to "Take Something From Character" (-10 points).



CHAPTER SIX
COMBAT AND ADVENTURING



ENTERING COMBAT

Here are some expanded rules, optional rules, and additional information about organizing combat sequences.

OPTIONAL SPEED SYSTEMS

Some *HERO System* gamers consider the SPD Chart a little frustrating. It creates a level of predictability that makes it easy for "power gamers" and rulesmongers to exploit the system in ways that may diminish the fun of the game, and it tends to introduce an element of "sameness" into every combat. If that's the case in your campaign, you may want to change the way SPD and Actions work. Several options are discussed below.

ROLLED SPEED

One variant for the SPD Chart that gets rid of at least some of the predictability mentioned above is to have characters roll to see if they get a Phase in each Segment. If the roll succeeds, they get a Phase, in the normal order of DEXs.

The main issue with this system is how to roll. The GM needs to evaluate the possible methods carefully to ensure balance within his group. Some possibilities include:

1. Get a twelve-sided die (d12). Each Segment every character rolls a d12; characters who roll less than or equal to their SPD get a Phase on that Segment. On the average, that should give each character the same number of Phases per Turn that he normally gets... but they won't occur in predefined Segments.

You could substitute 2d6-1 instead of 1d12, but the bell curve that results from rolling two dice means characters will get far fewer actions than normal (or have to spend a lot more points on SPD).

The benefit to this method is that it eliminates predictability. The drawback is that it does such a good job of eliminating predictability that it may leave a character action-less for a long period of time. If a player happens to get a string of unlucky rolls, his character just has to stand there, unable to do anything, which may not make much sense and certainly leaves the player feeling frustrated.

2. At the beginning of each Turn, each character rolls 1d6 and adds his SPD, to a maximum of 12. This indicates the number of Phases the character gets in that Turn. The GM may assign those Phases to the Segments indicated by the SPD of the same number, or use some other method of allocation (see below).

The benefit to this method is that it creates variability; a character can never be sure how many Phases he'll have (though he knows that at a minimum it's his SPD +1). However, it also causes several potential problems. First, it gives all characters +1 SPD or more, which isn't unbalanced (everyone gets it, after all) but can slow the game down. Second, sometimes a relatively slow character may get more actions than a relatively fast character — in fact, in a game where the slow and fast characters aren't separated by more than a point or two of SPD, this could happen frequently. That result may not be very satisfactory; it may mean the dice are more important than the SPD the character paid for. The same "the dice are better than the SPD" problem can result in Heroic games with characters who have low average SPDs (3-4).

3. Each Segment, every character rolls 2d6-1 and adds it to his SPD. If he gets a 12 or better, he gets a Phase that Segment. Characters with SPD 12 thus automatically get a Phase every Segment, and characters with SPDs of 9 or above will usually get one every Phase thanks to the bell curve of the 2d6 roll.

The benefit to this system is that it should allow every character roughly the same number of Phases per Turn, but not in predefined Segments. The drawback is that it tends to give some characters more Phases than normal, which may slow down combat.

One drawback all of these methods have is that they increase the time it takes to run a combat. They add in some extra die rolling and number-tracking in place of the SPD Chart's relative ease of use.

VARIABLE PHASES

Instead of changing the number of Phases a character has, you can change which Segments they occur in.

The easiest way to do this is to declare that all characters get a number of Phases per Turn equal to their SPDs — but they can use those Phases in any Segments they wish. For example, a SPD 5 character could choose to take his Phases on Segments 2, 3, 7, 9, and 12 during one Turn, and on Segments 2, 4, 5, 10, and 12 the next Turn. To keep characters from abusing this rule (by, for example, acting in Segments 1-4, then in Segment 5 using Martial Dodge with all Combat Skill Levels in DCV), the GM may require characters with SPDs below 7 to skip at least one Segment between Phases (really low SPDs, such as 2-3, may have to skip two or more Segments).

Another possibility is to use the same distribution pattern for a character's Phases, but randomly determine which Segment they start on. At the beginning of each Turn, every character rolls ½d6; the number rolled indicates the Segment the character's Phases begin on. For example, if a SPD 5 character rolled a 1, his Phases would occur on 1, 3, 6, 8, and 10 — the same pattern as SPD 5, but on different Segments. In some cases the GM may need to alter the distribution pattern to ensure every character gets his full number of Phases per Turn.

COUNTDOWN

In a "countdown" system for initiative, each character has a certain number of initiative dice; the faster the character, the more dice. At the beginning of a combat round, all characters roll their initiative dice. Starting with the highest number rolled, the GM counts down to 0. Each character gets one action on his highest number rolled, and *another* action every X steps below that. Thus, the higher the number a character rolls, the more times he gets to act in that round.

To simulate this sort of initiative in the *HERO System,* you need to do two things: (a) decide how many dice to roll, and how characters buy them, and (b) how to count down (*i.e.,* how many points to subtract between actions). For example, perhaps characters roll a number of initiative dice equal to their SPD, and then you subtract 4 points between actions. That would yield a number of actions per Turn roughly equal to the character's SPD, but with the possibility of sometimes going more or fewer times. If you wanted to allow more actions, you could reduce the subtractor; to allow fewer actions, increase it.

Example: *Andy decides to use a "countdown" system for initiative in his Champions game. Every character rolls dice equal to his SPD to get an "action total." A character gets a Phase on his action total, then gets one more Phase every 4 points below that. A character can Hold his Action to a later point in the countdown, but must use it before his next number comes up. If two character have a Phase on the same number, the one with the highest DEX goes first; if DEXs are tied, highest INT goes first; if INTs are tied, the highest PRE goes first; if PREs are tied, neither character gets an action because Andy is now incredibly annoyed at both of them.*

At the start of a battle, Defender (SPD 5) and Ankylosaur (SPD 4) roll initiative dice. Defender rolls 5d6 and gets 16; Ankylosaur rolls 4d6 and gets 19. Ankylosaur clearly has the upper hand in this battle in terms of initiative!

The combat starts on 19, and Ankylosaur gets an action. He also acts in 15, 11, 7, and 3 — he gets one more action than he could expect on the average since he rolled well. On the other hand, Defender goes in 16, 12, 8, and 4, so he doesn't act quite as often as he normally would.

OBTAINING EXTRA PHASES

Many gamers like the SPD Chart as a concept, but find it somewhat rigid and inflexible in a rules system that otherwise has a high degree of flexibility and customizability. They want to provide an option for characters to take extra Phases, or move their Phases to different Segments, at the cost of some penalty.

One such system focuses on CV. A character can move a Phase down the SPD Chart (*i.e.,* take his Phase earlier) for a -1 CV penalty per Segment (this applies to both OCV and DCV). The penalty lasts until the character skips a future Phase (*i.e.,* does nothing, not even taking a Recovery). If a character takes multiple Phases early, the penalties are cumulative, and he must skip one Phase per penalty to remove the penalties.

Example: *A character with SPD 5 decides he wants to take his Phase in Segment 5 in Segment 4 instead. He does so, suffering a -1 CV penalty. He keeps that penalty until he skips one of his Phases (in Segment 8, 10, or 12, or one the next Turn). If he decides to take his Segment 8 Phase in Segment 6, he suffers another -2 CV penalty for a total of -3 CV. He skips his Phase in Segment 10, which reduces the penalty to -2.*

A character can still Abort to a defensive action using the normal rules. This has no effect on CV, but of course forces the character to do nothing in his next Phase.

On the other hand, at the GM's option a character who delays his Phase by one Segment gets a +1 CV bonus per Segment delayed. This is *not* the same as Holding an Action. Holding gains no such bonus, but lets the character act whenever he wants to or a specified condition occurs; a delayed Phase can only be taken on a future Segment at the character's DEX in the initiative order.

Additionally, a character may take *extra* Phases if he wants to, but the penalty is more severe: -3 CV per extra Phase. If a character takes multiple extra Phases, the penalties are cumulative; extra Phase penalties are also cumulative with early Phase penalties. Characters cannot remove this penalty; it lasts until the combat ends or the GM decides it vanishes.

Example: *Continuing the example from above, after skipping his normal Phase in Segment 10, the character decides he needs to take an extra Phase in Segment 11. This adds -3 to his CV penalty, for a total of -5 (remember, he eliminated one -1 penalty by skipping his Phase in Segment 10). Good luck!*

OPTIONAL TIME CHARTS

	Standard	Option 1	Option 2	Option 3	Option 4
1	1 Segment	1 Segment	1 Segment	1 Segment	1 Segment
2	1 Phase	1 Phase	1 Phase	3 Segments	4 Segments
3	1 Turn	1 Turn	1 Turn	6 Segments	8 Segments
4	1 Minute	1 Minute	1 Minute	1 Turn	16 Segments
5	5 Minutes	5 Minutes	2 Minutes	2 Turns	30 Segments
6	20 Minutes	25 Minutes	4 Minutes	1 Minute	1 Minute
7	1 Hour	2 Hours	8 Minutes	3 Minutes	2 Minutes
8	6 Hours	10 Hours	15 Minutes	6 Minutes	5 Minutes
9	1 Day	2 Days	30 Minutes	10 Minutes	10 Minutes
10	1 Week	10 Days	1 Hour	30 Minutes	30 Minutes
11	1 Month	7 Weeks	2 Hours	90 Minutes	1 Hour
12	1 Season (3 Months)	8 Months	4 Hours	4 Hours	2 Hours
13	1 Year	3 Years	8 Hours	12 Hours	5 Hours
14	5 Years	15 Years	16 Hours	1 Day	10 Hours
15	25 Years	75 Years	32 Hours	3 Days	1 Day
16	1 Century	375 Years	64 Hours	1 Week	2 Days

At the GM's option, all penalties may disappear when the Turn ends. This could encourage character to add or advance Phases late in the Turn, though, so consider this rule carefully before implementing it.

Of course, CV isn't the only thing a system like this could penalize. The rule could instead impose a DEX reduction (say, -2 DEX per early Phase or -4 per extra Phase), for example. The GM may also want to include other restrictions, such as not allowing the use of Optional Combat Maneuvers or Multiple Attack on early or extra Phases.

The GM should examine carefully any Skill Levels (of any type) bought to counteract the early/extra Phase penalties. The proper way for a character to obtain more Phases with points is to buy more SPD, not to eliminate the early/extra Phase penalties.

RELATED RULES CHANGES

If you change the way SPD works, you may need to change the way some other rules work. For example, you may want to eliminate the Post-Segment 12 Recovery, or change the way the points gained/removed by use of an Adjustment Power fade/return. As with any other major new rule introduced into the game, be prepared to change or abandon it if it proves unworkable.

THE TIME CHART

The standard Time Chart on 6E2 18 works well for most campaigns. However, based on the nature of the campaign or the GM's preferences, a different method for keeping track of time increments in the game may be desireable. The accompanying table lists several examples (though of course the GM can come up with another one on his own if he prefers). The first column is the standard Time Chart.

Option 1 is the one from 6E2 18, a more mathematically-regular version where each step down the chart is five times the previous step (with some slight rounding here and there). That leads to longer gaps between steps, particularly at the lower end of the chart, which may work well for campaigns that cover long timeframes.

Option 2 is a Time Chart designed to follow the standard *HERO System* mathematical progression (1, 2, 4, 8, and so on). This makes it easy to learn and remember, and also increases the granularity. However, with this Time Chart it can become expensive to create really long-lasting effects.

Options 3 and 4 are two more combat-oriented, high-granularity approaches. They emphasize the fact that in many cases, what matters is time in combat, not long periods of time out of combat. As with Option 2, they make it expensive to buy powers with long-lasting effects.

If you adopt one of the alternate Time Charts for your campaign, you may need to make other changes in the game. For example, the fade/return rate for Adjustment Powers, the rate at which characters recover from Transform, and the speed at which characters heal BODY naturally or via Regeneration could all be affected.

SEGMENTED MOVEMENT ⚠

As mentioned on 6E2 27, some types of movement (such as falling and other "uncontrolled" movement) work better when they're calculated on a Segment-by-Segment basis. But in some campaigns, the GM may prefer to do this for *all* forms of movement. This can significantly change the dynamics of the game, and often slows down play, but if you think Segmented Movement would suit your campaign, use the following rules.

To determine a character's per-Segment movement rate, first you multiply his meters of Combat Movement and Noncombat Movement with a given type of movement by his SPD. That tells you his "movement per Turn."

Example: *Skylark has Flight 50m, x16 Noncombat, and SPD 8. That means his Combat Movement per Turn is (50m x 8 =) 400m and his Noncombat Movement per Turn is ((50 x 16) x 8 =)6,400m.*

The Verdict has Running 14m and Swinging 20m (both with a standard x2 Noncombat); he's SPD 4. That means his Combat/Noncombat Running per Turn is 56m/112m, and his Combat/Noncombat Swinging is 80m/160m.

Second, you divide the character's per-Turn movement rates by 12. This tells you how far he can move in a Segment. Always round *down* to the nearest whole number; standard *HERO System* rounding rules do not apply. (Alternately, the GM can allow a character to use his "remainder" meters of movement during Segments when the character has a standard Phase.)

Example: Skylark has 400m/6,400m of per-Turn *movement with his Flight. That means his Combat and Noncombat Movement per Segment are (400m/12 =) 33m and (6,400/12 =) 533m.*

The Verdict has 56m/112m of Running per Turn; that equals 4m/9m per Segment. With his Swinging (80m/160m), he can move 6m/13m per Segment.

MOVEMENT PHASES

With the Segmented Movement system, ignore a character's SPD for purposes of movement. Every Segment every character gets a *Movement Phase.* This is in addition to his standard Phase, if he has one in a Segment; in either case the Movement Phase occurs when his DEX comes up in the Segment, just like a standard Phase. Unless he's making a movement-based attack (such as a Move By, Move Through, or Strafe), a character must use his Movement Phase *before* he uses his standard Phase. If he takes any non-movement actions, even Zero-Phase Actions to activate non-Movement Powers, with his standard Phase he loses his Movement Phase that Segment.

On a Movement Phase, a character can move up to his full meters of movement, and can accelerate or decelerate as desired. This has whatever standard effect it has on the character's other actions and abilities, based on the rules. For example, if a character moves at Noncombat Movement velocity, he's at 0 OCV, ½ DCV if he attacks (or is attacked).

Moving on a Movement Phase has no affect on a character's ability to use his standard Phase's Actions, if he has a standard Phase in the same Segment. Even if a character makes a Full Move on his Movement Phase in a Segment when he has a standard Phase, he still gets his full Phase's worth of Actions in his standard Phase; for example, he could perform an Attack Action. However, in campaigns using the Segmented Movement rules, characters cannot move (neither Half Moves nor Full Moves) as a standard Phase Action.

To make a movement-based attack (such as a Move By, Move Through, or Strafe) in his standard Phase, a character must "hold" his Movement Phase and use it "simultaneously" with his standard Attack Action. The damage or other effect depends on the character's purchased meters of movement, not how far he can move in a Segment. For example, if a character has bought Running 30m (leading to a per-Segment velocity of 10m due to his SPD 4), he adds +5d6 damage to a Move Through, not the +1d6 he'd get from 10m.

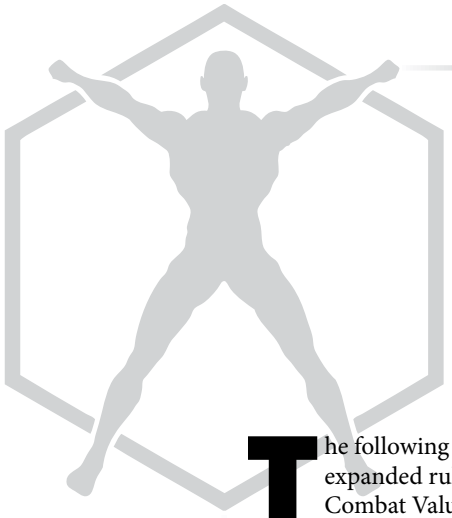
If a character Aborts to a defensive action in a Segment in which he doesn't have a Phase, he cannot also move in that Segment unless the movement is part of the defensive action (such as performing a Dive For Cover). If the character has already taken his Movement Phase in that Segment, he cannot Abort.

A character operating a Vehicle that's using per-Segment movement can make control rolls, accelerate/decelerate, and the like in any Segment, even if he doesn't have a standard Phase. In effect operating the Vehicle takes the place of his Movement Phase.

DECOUPLING MOVEMENT AND SPEED

If you want to go even further with this concept, you can "decouple" SPD and movement altogether. Characters get a Movement Phase every Segment as described above, but they buy Movement Powers differently.

All characters start the game with Running 2m per Segment, Leaping 1m per Segment, and Swimming 1m per Segment. They buy increases to these forms of Movement, and other Movement Powers, in per-Segment increments. This costs two times the Character Points as Movement Powers using the standard rules. Thus, Flight costs 2 Character Points for 1m per Segment, Running costs 2 Character Points for every +1m per Segment, Leaping costs 1 Character Point for every +1m per Segment, and so on. The damage or other effect of a movement-based attack (such as a Move By or Move Through) derives from the character's per-Segment velocity.



FIGHTING

The following additional, optional, and expanded rules apply to calculating Combat Values, making Attack Rolls, and related matters.

ATTACK ROLLS

The standard *HERO System* Attack Roll adds 11 to character's OCV. This means that if the attacker's OCV equals the target's DCV, he has a 63% chance to hit — considerably better than average (see 6E2 281 for how differences in the two numbers change the odds). For GMs who want things a little more "realistic," but not too "realistic," consider changing the 11 to a 10. With 10 as the adder, an attacker has a 50% chance to hit an evenly-matched defender, which may work better for some campaigns.

HALVING COMBAT VALUE

Many actions, such as moving at Noncombat velocity, can halve a character's OCV or DCV, or even reduce it to zero. Since this reduction is applied as the last step of the OCV and DCV Checklists (6E2 36-37), it can in effect eliminate or reduce the effect of other things that alter CVs, such as the Range Modifier.

If the GM wants to compensate for this in his campaign, he can divide CV modifiers into two types: External and Internal. *External* modifiers are those distinct from the character himself, such as the Range Modifier, the Target Size modifier, the modifier for attacking an Area, and the like. *Internal* modifiers are those that depend on the character and his voluntary actions, such as modifiers from various Combat Maneuvers or using Noncombat Movement. Internal modifiers apply *before* halving CV or reducing it to 0, in the order indicated by the CV Checklists. External modifiers apply *after* halving CV or reducing it to 0 (if there's some significance to which one applies first, use the standard Checklist order as a guideline). In this case, the GM may want to change the rules so that characters can have negative DCVs, with the "negative" becoming a bonus to an attacker's OCV and the target then being treated as DCV 0.

THE RANGE MODIFIER

For campaigns featuring fights that occur on *really* large battlefields, the accompanying Extended Range Modifier Table provides a quick reference for looking up Range Modifiers for vast distances.

COMBAT MODIFIERS

AREA OF EFFECT ATTACKS

Using an Area Of Effect attack against an adjacent target point means the target point has DCV 0 instead of DCV 3. "Adjacent" means within 2m of the target when he begins or launches the attack. Unless the GM permits it, a character cannot buy Area Of Effect as an Advantage for his STR and then use it on other areas (such as the target point at the end of a Move By/Through, or areas reached with Stretching) at DCV 0 — those target points have DCV 3 against his attack, since they're not "adjacent" to him when he begins the attack.

BOUNCING AN ATTACK

As stated in the rules, typically a character uses one Combat Skill Level with an attack for each Bounce he performs. However, some characters may want to be skilled with Bouncing An Attack in general, regardless of the type of attack used. At the GM's option, characters can buy 3-point Combat Skill Levels with Bouncing An Attack. These CSLs don't increase a character's OCV at all; they simply allow him to Bounce any of his Ranged attacks.

COORDINATED ATTACK

If two characters with Autofire attacks make their Teamwork rolls to coordinate their attacks, the two first hits add together and are applied to defenses as usual for Coordination, the two second hits add together and are applied to defenses as usual for Coordination, and so on until one person's number of hits runs out and the other's are applied by themselves (if that happens at all).

EXTENDED RANGE MODIFIER TABLE

Range Modifier	Distance	KM	Notes
-0	Up to 8m	—	4-lane highway width, height of 2 average building stories or an elevator
-2	9-16m	—	
-4	17-32m	—	
-6	33-64m	—	
-8	65-125m	—	91m is the length of a football field
-10	126-250m	0.25 km	An average city block is 160m; the Washington Monument is 169m tall; Seattle's Space Needle is 184m tall
-12	251-500m	0.5 km	The speed of sound in air is approximately 344m/second; te Eiffel Tower is 324m tall; Chicago's Sears Tower is 444m tall
-14	501-1,000m	1 km	Elevation of the lowest clouds (1 km)
-16	1,001-2000m	2 km	
-18	2,001-4,000m	4km	Average depth of Earth's oceans
-20	4,001-6,000m	8 km	Mt. Everest is 8,848m tall
-22	8,001-16,000m	16 km	11-20 km/sec is Earth's escape velocity
-24	16,001-32,000m	32 km	Elevation of the highest clouds
-26	32,001-64,000m	64 km	Diameter of the Chicago city limits
-28	64,001-125,000m	125 km	Diameter of the Los Angeles metropolitan area
-30	125,001-250,000m	250 km	Grand Canyon is approximately 349 km long
-32	250,001-500,000m	500 km	North-south length of England and Scotland
-34	500,001-1 mil m	1,000 km	640 km is thermosphere (atmosphere) boundaries, FTL permitted
-36	1.1-2 mil m	2,000 km	
-38	2.1-4 mil m	4,000 km	Diameter of the Moon; the continental US has a "diameter of approximately 4,600 km
-40	4.1-8 mil m	8,000 km	North-south length of Africa
-42	8.1-16 mil m	16,000 km	The Earth is 12,740 km in diameter
-44	16.1-32 mil m	32,000 km	Geosynchronous orbit of Earth
-46	32.1-64 mil m	64,000 km	Earth's circumference is 40,038 km
-48	64.1-125 mil m	125,000 km	Diameter of Saturn or Jupiter
-50	125.1-250 mil m	250,000 km	
-52	250.1-500 mil m	500,000 km	The speed of light in a vacuum is 299,792 km/sec (299,792,458 m); distance from Earth to the Moon (404 million m)
-54	500.1-1 bil m	1 mil km	
-56	1.1 bil-2 bil m	2 mil km	Diameter of the Sun
-58	2.1-4 bil m	4 mil km	
-60	4.1-8 bil m	8 mil km	
-62	8.1-16 bil m	16 mil km	
-64	16.1-32 bil m	32 mil km	
-66	32.1-64 bil m	64 mil km	
-68	64.1-125 bil m	125 mil km	The distance from the Earth to the Sun (1 Astronomical Unit, or AU) is 150 million km
-70	125.1-250 bil m	250 mil km	2 AUs
-72	250.1-500 bil m	500 mil km	4 AUs
-74	500.1-1 tril m	1 bil km	8 AUs; Uranis is 6.7 AUs from the Sun
-76	1.1-2 tril m	2 bil km	16 AUs
-78	2.1-4 tril m	4 bil km	32 AUs; Pluto is 25 AUs from the Sun
-80	4.1-8 tril m	8 bil km	64 AUs; the Oort cloud (on the edge of the Solar System) is 65 AUs from the Sun
-82	8.1-16 tril m	16 bil km	125 AUs
-84	16.1-32 tril m	32 bil km	250 AUs
-86	32.1-64 tril m	64 bil km	500 AUs
-88	64.1-125 tril m	125 bil km	1,000 AUs
-90	125.1-250 tril m	250 bil km	2,000 AUs
-92	250.1-500 tril m	500 bil km	4,000 AUs
-94	500.1-1 quad m	1 tril km	8,000 AUs
-96	1.1-2 quad m	2 tril km	16,000 AUs
-98	2.1-4 quad m	4 tril km	32,000 AUs
-100	4.1-8 quad m	8 tril km	64,000 AUs; 1 light-year is 63,072 AUs
-102	8.1-16 quad m	16 tril km	125,000 AUs, or 2 light-years
-104	16.1-32 quad m	32 tril km	250,000 AUs; the distance from Sol to Alpha Centauri (the nearest star) is 270,000 AUs
-106	32.1-64 quad m	64 tril km	500,000 AUs, or 8 light-years
-108	64.1-125quad m	125 tril km	1 million AUs, or 16 light-years
-110	125.1-250 quad m	250 tril km	2 million AUs, or 32 light-years
-112	250.1-500 quad m	500 tril km	4 million AUs, or 64 light-years
-114	500.1-1 quin m	1 quad km	8 million AUs, or 125 light-years
-116	1.1-2 quin m	2 quad km	16 million AUs, or 250 light-years

To obtain the distance in miles, multiply kilometers by 0.6214.

mil: Million • **bil:** Billion • **tril:** Trillion • **quad:** Quadrillion • **quin:** Quintillion

ENHANCEMENT

At the GM's option, characters can use an expanded form of Coordinated Attacks known as *Enhancement.* This Combat Modifier takes advantage of the fact that certain types of attacks (primarily energy-based ones) complement, or enhance, one another.

To use Enhancement, two (or more) characters must each be using a type of energy (or other attack) that is somehow related to or complementary with the type the other uses. It's up to the GM to decide which types of energy are "related to" other types; here are a few examples of types that are usually considered "related":

- Any type of energy relates to itself
- Electricity, Electromagnetic Energy, Light, Magnetism, and Radiation all relate to each other
- Magnetism and Gravity
- Sonic and Vibration
- Magnetism relates to Ice/Cold, but not vice-versa (Ice/Cold can be used to Enhance Magnetism, but Magnetism cannot Enhance Ice/Cold) (the same may apply to Electricity and Ice/Cold)

Depending on the nature of the GM's setting, other "related" energy types may be obvious. For example, in a Fantasy setting where Shadow and Ice magic are considered "evil," Darkness, Ice/Cold, and Unholy attacks may all relate to one another. On the other hand, some types of energy are "opposites" and never relate to one another, like Fire/Heat and Ice/Cold, Fire/Heat and Water, and Darkness and Light.

If the GM determines that the two attack types are sufficiently "related," the two characters can try to gain an Enhancement bonus. To begin with, Enhancement works just like an ordinary Coordinated attack — the characters involved have to act on the same DEX in the same Phase, must succeed with *Teamwork* Skill rolls, and so forth. If all that applies (if they successfully Coordinate, in other words), then each of them must make an appropriate *Power* Skill roll. If both rolls succeed, they have successfully made an Enhanced attack. What occurs here is that the two attack types work together constructively, sort of like two ocean waves traveling in the same direction coming together to form one larger wave.

An Enhanced attack multiplies the damage caused by the larger of the two powers (the one with the most Active Points or most dice, whichever the characters involved prefer) by 50% — for example, it makes an 8d6 attack do 12d6 damage. (This effect is instead of, not in addition to, Coordinated Attack bonuses; characters using Enhancement do not also get a Coordinated attack as well.) The smaller attack doesn't damage the target at all; its power went into Enhancing the larger attack. The attack has the same energy type/special effect as the larger attack.

Characters can only use Enhancement with the same sorts of attacks they can Coordinate with — attacks that do STUN damage. The GM may, at his discretion, allow Enhancement of other types of effects (for example, using a Sonic attack to enhance a Vibration-based Drain DEX defined as inducing vertigo), but if so he may wish to reduce the bonus provided by Enhancement or impose penalties on the rolls involved to represent the difficulty of the task.

Enhancement can only be used with Autofire attacks if *all* attacks involved are Autofire attacks (though they don't have to have or use the same number of "shots"). The characters only have to make one Teamwork roll to "Coordinate," but they have to make a separate *Power* Skill roll for *each* shot used; if either of them miss on any shot, they cannot try to Enhance any later shots in that sequence (though they could try to Enhance their attacks again in a later Phase). The damage bonus applies to each shot successfully Enhanced.

Enhancement only works with Area Of Effect attacks if *all* attacks involved have that Advantage *and* all cover areas at least as large as the area covered by the "larger" power (the one that gets Enhanced). The Enhancement bonus only applies to the area covered by the larger power, and the smaller power used to Enhance it doesn't cause any damage beyond its boundaries if the smaller power covers a larger area.

ENVIRONMENTAL CONDITIONS

Here's some additional information about some Environmental Conditions.

CLIMBING LADDERS

A character can climb a ladder at the rate of 4m per Phase; standard Combat Modifiers for effect on CV, DCs, and the like apply (see 6E2 47). At the GM's option, a character who makes a Climbing or PS: Use Ladders roll by 3 or more can increase the rate to 6m per Phase.

CROUCHING AND CRAWLING

Crouching and crawling do not, *per se,* increase a character's DCV or affect his OCV. They may make it easier for him to get Behind Cover while still moving, or make it more likely that he gets knocked Prone by an attack, but those are separate Combat Modifiers.

Unless the GM rules otherwise, a character can only crawl at one-sixth of his standard Running rate (*e.g.,* 2m for a character with the ordinary Running 12m), and can only move at a crouch at one-third of his standard Running rate.

SPREADING

A character cannot Spread a Ranged attack when performing a Called Shot using the Hit Location rules.

Characters may not Spread non-damaging or non-harmful "attacks" or Powers, such as Aid.

SPECIFIC POWERS

The rules on 6E2 49-50 rulebook explain how to Spread most attacks. Here are some supplementary rules for some unusual Ranged attacks.

Drain: Use the *Drain, MBlast* column on the Damage Class Table (6E2 97) to determine how a Drain loses "Damage Classes" when Spread.

Entangle: When Spread, an Entangle loses 1 BODY and 1 PD/1 ED per +1 OCV or +1m radius Area filled. If the GM is willing to accept a little complication, the character can subtract 1 BODY or 1 PD/1 ED, alternating, from the Entangle for each +1 OCV or +1m Area.

Flash: When Spread, a Flash (of any type) loses 1d6 of effect for every +1 OCV or +1m radius Area filled.

Transform: On the Damage Class Table, use the *Killing Damage* column for Severe Transforms, the *Drain, MBlast* column for Major Transforms, and the *Normal Damage* column for Minor Transforms (and for Cosmetic Transforms, unless you want to take the time to calculate a new column for the table).

SPREADING STRENGTH

Typically Spreading is restricted to Ranged attacks; it gives them a benefit that STR lacks, to balance STR's general utility. However, some some GMs may prefer to let characters Spread their STR as a way of representing an "arm sweep," massive fists, or the like. In this case, the character may only Spread for one 1m Area (unless he has Stretching or some other ability the GM believes justifies a broader Spread).

Additionally, in some cases the GM might let a character use the Spreading rules for his STR to reflect how he picks up large objects and uses them as "clubs" to hit people in HTH Combat, instead of the Objects As Weapons rules (6E2 173). In this case, the character has to Spread for Area, not OCV, and the size of the Area Spread must equal the "footprint" of the object.

Example: *Grond decides to smash the Champions with a school bus. A bus measures 10m x 5m x 5m. Therefore Grond must Spread for a footprint 10m long by 5m wide. That means he loses 10 Damage Classes from his attack and only does (90-50) 40 STR worth of damage — 8d6. On the other hand, he's hit all five of the Champions at once!*

COMBAT AND MARTIAL MANEUVERS

The following additional, optional, and expanded rules apply to Combat and Martial Maneuvers.

BLAZING AWAY

A character may use this Combat Maneuver to "blaze away" with a Ranged attack, firing as often as he can (up to the maximum amount of END or Charges he has available). It's most appropriate for Heroic campaigns, but can be used in Superheroic games as well.

When Blazing Away, the character makes one Attack Roll for each attack fired, but he hits his target only if he rolls a 3 (he cannot improve this number with Combat Skill Levels, Combat Modifiers, or any other method). He must expend END or Charges for each attack. He may use an Autofire attack to Blaze Away, but still hits only if a 3 is rolled, and can only hit with one attack out of each "burst" fired. The GM may want to restrict an attacker using Blazing Away to 4-5 shots to reduce the amount of die rolling involved.

Blazing Away counts as an "extremely violent action" for purposes of making a Presence Attack.

Example: *Firefight notices a large group of thugs rushing up to see what happened to their boss (whom he just shot with his pistol). He runs forward (a Half Move) and Blazes Away over their heads with 5 shots. He realizes he has little chance of hitting them, but hopes to make a Presence Attack to scare them away, using his extremely violent action to get a bonus.*

When Blazing Away, a character must specify in advance how many shots he wishes to make. He's not allowed to make them one-by-one, seeing if each one hits before deciding whether to launch additional shots.

Using an Area Of Effect attack or the like doesn't change the effects of Blazing Away — a character can still only hurt the target if he rolls a 3 on his Attack Roll. The missed Area-affecting attacks can't harm his enemy.

Usually a character cannot use an attack with the *Extra Time* Limitation to Blaze Away. However, the GM should consider the nature of the Limitation and the special effects involved. For example, if the Limitation only applies to activating the power the first time, but not thereafter, a character might be able to Blaze Away with it after it's been activated.

At the GM's option, characters can Blaze Away with HTH attacks by making a series of wild, violent punches, kicks, slashes, or the like.

BLOCK

With the GM's permission a character can make multiple Blocks to protect someone else, using the standard multiple Block penalty in addition to the flat -2 OCV penalty for Blocking for another character.

With the GM's permission, a character is allowed to Block for himself and for someone else, in whatever order, as part of the same overall chain of multiple Blocks, provided he doesn't have to move to Block for the other character. Thus, he could start out Blocking for himself, then Block for another character, then go back to Blocking for himself, all as part of the same Action/chain of Blocks.

Assuming the GM wants to allow a character to perform multiple Blocks for someone else, and then allow that character to Block for himself before some intervening cause would eliminate the cumulative OCV penalty for performing the multiple Blocks, the OCV penalty incurred for Blocking for the other person applies to the character's effort to Block for himself. The same applies if the character Blocks for himself and is then allowed to Block for another person.

For example, suppose Yeung Li has OCV 14. He Blocks one attack against himself at -0 OCV (20). He Blocks another attack against himself so he's at -2 OCV (12). Then he wants to Block three attacks being made against his companion Yumiko. Those Blocks are at -4, -6, and -8 OCV, plus the additional -2 OCV for Blocking for someone else (8, 6, 4) respectively. If he then wants to Block another attack against himself, that will be at -10 OCV (4).

MIXING HAND-TO-HAND AND RANGED BLOCKS

Under the standard rules, characters cannot combine a Block of a HTH Combat attack with a Block of a Ranged attack as part of the same sequences of Blocks. With the GM's permission, this rule doesn't apply — characters can mix the two types of Blocks freely. However, this entails a -2 OCV penalty, which accrues on the first attempt to Block an attack that's different from the ones the character's been Blocking. For example, if a character Blocks two HTH Combat attacks, he's at -0 OCV for the first, then -2 OCV for the second. If he then tries to Block a Ranged attack, he's at -6 OCV: -4 OCV for his third Block, plus another -2 for now trying to Block a different type of attack.

BLOCKS COMBINED WITH OTHER ELEMENTS

Some Martial Maneuvers, such as Defensive Throw and Grappling Block, combine Block with other Martial Maneuver elements such as Grab or Throw. Since these maneuvers have an offensive or aggressive aspect to them, a character cannot Abort to them (even if he wants to use just the Block part of the maneuver).

DISARM BY ⚠

This optional new Combat Maneuver allows a character to move past someone and Disarm that person, in effect combining some aspects of Move By with Disarm. It requires at least a Half Move, and can be performed with a Full Move if desired. It imposes a -4 penalty on OCV and a -2 on DCV. If the Attack Roll succeeds, the character engages in a STR Versus STR Roll Contest to see if he Disarms the target, and his velocity divided by 5 adds to his STR (not his STR dice) only for purposes of succeeding with the Disarm. Otherwise, standard rules for Disarm apply. In particular, remember that a Disarmed object goes flying 1d6+1 meters in the direction of the strike — the character *does not* get to take it away and keep it (that requires a Grab By).

At the GM's option, a character performing a Disarm By can make a Sleight Of Hand roll to replace the Disarmed object with some other object he's already holding.

Characters may not perform Disarm Bys or Grab Bys with Extra-Dimensional Movement, FTL Travel, Teleportation, any MegaScaled form of movement, or Telekinesis. However, they may perform them at Noncombat Movement speeds with other forms of movement (though this means the character has a base OCV of 0).

DIVE FOR COVER

Ordinarily a character can only Dive For Cover himself, he can't take someone else along with him. However, the GM may permit this if desired. In this case, the character can do either of the following:

- Dive For Cover from where he's standing, taking someone who's in the same or an adjacent Area with him. He suffers a -2 penalty to the DEX Roll for each person he carries along (in addition to the standard penalty based on distance moved).
- move up to someone and Dive For Cover from that point. In this case the standard DEX Roll penalty depends on the entire amount of meters moved (not just the "dive" from where the rescuee was located), and the character suffers an additional -2 penalty to the DEX Roll for each person he carries along. Unless the GM rules otherwise, the character could Dive For Cover this way with multiple people that he picks up either in groups or one at a time along his movement path.

In either case, the GM may restrict how many people a character can carry based on his STR, available limbs, or other factors. If the character fails his DEX Roll, he and everyone he's carrying suffer the negative effects. When he lands, he and everyone he's carrying are considered "prone," and are subject to all other rules governing Dive For Cover unless the GM rules otherwise.

GRAB

Here are some additional rules and options for Grab.

Options For Grab

As indicated in 6E2, after performing a Grab, in that same Segment a character can only Squeeze, Slam, or Throw the target as an immediate attack; he can't use any other maneuvers or attacks unless the GM or some other rule permits it.

At the GM's option, besides Squeezing, Slamming, or Throwing a Grabbed victim, characters can do any one of the following immediately after performing a Grab in that same Segment without the need for an additional Attack Roll. They can also perform them when they have Phases in later Segments (or, if appropriate, if they want to Abort to them), but they must first succeed with an Attack Roll, just like with Squeezing, Slamming, or Throwing in later Segments. These options are most appropriate for martial arts campaigns and the like.

- Grab and Block
- Grab and Control
- Grab and Redirect
- Grab and Shove

A character can only use one of these additional functions in a Phase (just like he can't both Squeeze and Throw a victim). Having Grabbed a target, the character cannot Block and Redirect in the same Phase, or Block and Throw, or any other combination.

REDEFINING BLOCK

The basic Block maneuver allows the character to avoid all damage from a HTH Combat attack and then go first in the next Phase if both combatants have their next Phase in common. If the GM prefers, he can redefine Block slightly to allow different combat dynamics. Here are some suggestions along these lines:

1. A Block deflects all damage from an attack, but does not let the Blocker go first in the next Phase. This sort of Block is sometimes referred to as an "active Dodge."

2. A Block deflects half of the damage from an attack, and allows the Blocker to go first in the next Phase.

3. A Block deflects half of the damage from an attack, and does not allow the Blocker to go first in the next Phase.

4. A Block deflects all of the damage from one attack only, and provides its DCV bonus against all other attacks that Phase. In other words, characters cannot use Block to avoid successive attacks in the same Phase, though they get the DCV bonus from the maneuver.

GRAB AND BLOCK

With this combination, a character Grabs someone — and then, at any time while the Grab is still in effect, Blocks an incoming attack with the Grabbed character's body. (This is a particularly popular maneuver among villains, who are fond of using it with captured DNPCs and other innocents.) To do this, he performs the Grab normally. If the Grabbed character doesn't immediately escape, the Grabber can perform a Block with his body. Roll the Block maneuver (or Martial Block maneuver) at a -2 to OCV (this replaces the normal ½ OCV the Grabber has against other targets). If it succeeds, the Grabber has Blocked the attack; the Grabbed character takes the damage of the incoming attack. You can only Block this way once per Phase, unlike ordinary Blocks.

If a character has Combat Skill Levels with Grab, he cannot apply them to the OCV of the Block of a Grab-and-Block combination.

GRAB AND CONTROL

When a character Grabs someone, he can also attempt to *Control* that person, meaning turn the victim so he cannot attack the character as easily. To do this, he and the victim both roll their STR dice and count the BODY. (If this is immediately after he Grabbed the victim and the victim's Phase hasn't yet come up, the victim can only use his Casual STR.) If the character rolls at least 2 BODY more than the victim, he can turn the victim so the victim cannot strike him this Segment. (Of course, this may be useless if the victim has Stretching, an Indirect attack, or some other ability that counteracts the Control.) To maintain Control, the character must win another STR versus STR contest whenever the victim tries to break free.

Grab and Control is a good way to subdue someone a character wishes to speak to but not hurt; it does the victim no harm and gives the character a Phase or two to speak. A character can also use Grab and Control to force someone to the ground without hurting him (to force him to the ground and do STR damage to him in the process, Grab and Slam him).

GRAB AND REDIRECT

Redirect follows a Grab of someone's weapon. If a character Grabs a weapon, he may engage in a STR Versus STR Roll to attack with it. Both he and the victim roll their STR dice and count the BODY. If the character succeeds (*i.e.,* the BODY he rolled equals or exceeds the victim's BODY roll), he can attack the weapon's wielder or another character within HTH Combat distance (*i.e.,* 1m, unless the weapon extends Reach).

If the campaign uses the STR Minimum rules, they apply to Redirect attacks. If the character's STR isn't sufficient to use the weapon, he suffers the usual OCV and/or damage penalty. If his STR equals or exceeds the weapon's STR Minimum, he suffers no OCV penalty, but he only does the weapon's base damage. Since the wielder of the weapon struggles against him, the character doesn't get to use any of his STR which exceeds the weapon's STR Minimum to increase the damage done by the weapon.

Characters can use Grab-and-Redirect with Ranged attacks, assuming appropriate special effects (such a maneuver might work very well with a gun, less well or not at all with a bow or throwing knife). Characters cannot apply Range Skill Levels with a Redirect, though.

If a character has Combat Skill Levels with Grab, he cannot apply them to the OCV of, or damage caused with, the Redirect of a Grab-and-Redirect combination. Nor can he apply Extra DCs to increase the damage of that maneuver.

GRAB AND SHOVE

Once a character has Grabbed someone, he may attempt to Shove the victim backwards. He makes a STR Versus STR Roll. If he succeeds, he may shove the victim back a maximum of 2m. He moves with the victim and continues to hold on to him as he does so.

A character may perform this option even after he's performed a Half Move and Grab/Shove. For example, a character with Running 14m moves 7m forward and Grabs his target successfully. He can now elect to Shove his target back 2m, even though, at Phase's end, he's moved a total of 10m (more than his Half Move) and still performed an attack.

Shoving does no damage to a target unless he's shoved into a surface such as a wall; in that case, he takes the character's STR damage. A STR 18 character shoving a target into a wall will do 3½d6 Normal Damage to that target. If the campaign uses Hit Locations, this is just generalized damage.

FURTHER OPTIONS

The GM may allow other optional "uses" for Grab as a Multiple Attack. For example, a large monster could Grab-and-Squeeze a character with its mouth and also use its fangs (an HKA) as part of a Multiple Attack.

Move Throw

A *Move Throw* is a form of Grab and Throw that lets a character pick up a target, move with it, and then let it go or throw it so it slams into a wall, the ground, another character, or the like and takes damage. The damage depends on the character's velocity more than his STR.

To perform a Move Slam, a character must first Grab a target (standard Grab rules apply, including CV penalties). Then on a later Phase (not necessarily his very next Phase, just any Phase in which the character still has the target Grabbed), he moves with the victim and Throws him into something. Typically this is a wall, vehicle, tree, or other reasonably solid vertical structure, not just the ground, but it depends on the direction the character moves. The target could even be another character (see *Characters As Weapons,* 6E2 124, for rules for this).

In most cases the character moves to within 4m of what he's Throwing the target into and then "throws" or drops the target into it. In this case penalties for balance and aerodynamicity do not apply. If the character wants to Throw the target a greater distance than 4m, use the Throwing Table (6E2 81) to see if he can do so; in that case penalties for Throwing an unbalanced and/or unaerodynamic object may apply, as may the Range Modifier.

To Move Throw a target, the character must succeed with an Attack Roll. If the roll succeeds, the target takes ((STR/2) + (velocity/6)) in d6 of Normal Damage and end up at the location occupied by the object he was Thrown into. (The GM may convert this to the equivalent DCs of Killing Damage if what the target's Slammed against is sharp, jagged, or the like.) If the roll fails, the target takes no damage at all and is in the location his attacker occupied when he made the Attack Roll *or* the location occupied by the object he was supposed to hit, whichever he prefers. Whether the Attack Roll succeeds or fails, the character no longer has a hold on the target — the Grab has ended. To perform another Move Throw on the target, the character has to Grab the target again and start moving.

At the GM's option, a character can perform a *Move Slam* instead of a Move Throw. This means he Slams a Grabbed target into a vertical object as he moves past it, doing ((STR/2) + (velocity/6)) in d6 of Normal Damage to the target but still retaining his hold on the target. He could even Move Slam a target into multiple vertical objects (such as a row of fence posts) as a Multiple Attack.

HAYMAKER

If a character wants to Haymaker an attack that takes Extra Time, the Extra Time begins "running" when he announces that he's beginning a Haymaker with it. All Haymaker conditions apply for the entire length of the Extra Time, plus one Segment. The Haymaker finally occurs at the very end of the Segment after the Extra Time has fully run.

A character can Haymaker an Area Of Effect attack, but if *anyone* who's in the target area moves while the character is "winding up," the Haymaker fails, unless the GM rules otherwise.

If a character Haymakers a Constant attack, the +4 DCs from the Haymaker only apply during the initial attack. The damage thereafter is based on the standard effect for the power. The GM can determine how to reduce the damage, but in the case of a Normal Damage attack like a Blast typically what he should do is remove the four dice with the highest numbers on them.

If an attack being Haymakered doesn't normally require an Attack Action, Haymakering it automatically makes it take an Extra Segment to execute.

HURRY

This Optional Combat Maneuver, which is similar to Hipshot, provides a character with a way to raise his DEX for purposes of going first in a Phase, but at the expense of rushing his attack (and thus having a worse chance to hit). Characters may use Hurry with other Combat or Martial Maneuvers (though in most cases they simply use it with Strike).

To use Hurry, a character declares at the beginning of a Segment in which he has a Phase that he will Hurry his next Action. He rolls 1d6 and adds the result to his DEX only for purposes of acting earlier in the Phase. When the DEX count gets to his effective DEX, he acts.

Normally, a character should declare he's Hurrying at the beginning of a Segment in which he has a Phase. If the character waits to declare that he'll Hurry until after the DEX count has begun, and his effective DEX while Hurrying would exceed the DEX of characters who have already acted, the Hurrying character doesn't retroactively get to act before they did — Actions already taken are taken, and the character simply gets to act right away.

While Hurrying, the character is at -2 OCV, -2 DCV, and -2 on all Skill and Characteristic Rolls. DEX gained from Hurrying doesn't add to Skill Rolls or Characteristic Rolls.

Example: *Firefight (DEX 20) declares at the beginning of the Phase that he will Hurry. He rolls 1d6 and get a 5. His effective DEX for taking an Action is now a 25. When the DEX count reaches 25, he can act, but will be at -2 on his CV and Skill and Characteristic Rolls.*

Suppose Firefight declares after the GM has begun the DEX count that he will Hurry. He rolls 1d6 and get a 5. His effective DEX for taking an Action is now a 25. However, the GM has already counted down past DEX 24 and 23, and characters with those DEXs have acted. Firefight doesn't get to act before those characters, but he may now act. He is at -2 on his CV and Skill and Characteristic Rolls.

Generally, a character should only attempt relatively simple actions while Hurrying. Many normally automatic actions become difficult if a character Hurries. The GM should feel free to require DEX Rolls, Skill Rolls, or any other appropriate roll to determine if a character can properly perform an Action while Hurrying (or, alternately, impose a penalty on the action attempted).

Like Hipshot, Hurry typically can only be used to make attacks, unless the GM rules otherwise. The GM should be more willing to grant exceptions for Hurry, since it involves things like Skill Roll and Characteristic Roll penalties.

INTERFERENCE

Interference is a new Optional Combat Maneuver that the GM can allow in the campaign. It's primarily intended for energy powers and similar abilities, but the GM can allow characters with other types of attacks to use it as well in appropriate circumstances. It's based on the fact that certain energy types can "counteract" each other in ways energy projectors can exploit. What occurs here is that the two energy types interact negatively, sort of like two ocean waves crashing together and destroying or weakening one another.

To use Interference, a character must have two things:

1. An Action available. Typically this means he's Held his Action in anticipation of using Interference, but at the GM's option a character can Abort to Interfere. (The GM can even allow a character to Abort to Interfere with an attack directed at someone other than himself, if that seems appropriate and properly heroic.)

2. A Ranged attack power that (a) is a non-Mental Power that directly causes damage, such as Blast, RKA, Drain, or Telekinesis, and (b) is of a type of energy that's related to the attack the character wants to interfere with. "Related" in this situation means that the two powers have the same energy type (*i.e.,* both are Sonic attacks, both are Fire/Heat attacks) or are conceptually opposed to or opposites of each other (*e.g.,* Fire/Heat and Ice/Cold, Darkness and Light, Fire/Heat and Water). At the GM's option, characters can use Interference with powers that are not so closely "related"; use the definition provided under *Coordinated Attack: Enhancement,* above, as a guideline. The GM has the final say about whether one attack can be used to Interfere with another.

To use Interference, a character must make an Attack Roll that pits his OCV against the *OCV* of the character using the power he wants to Interfere with (similar to Block). The character suffers a -2 OCV penalty and -2 DCV penalty for using the Maneuver. If the roll succeeds, the character's power has Interfered with the other power — their "harmonics" or "frequencies" or "wavelengths" interact in ways that diminish the other power, or their opposed forces simply cancel each other out. The character using the other power subtracts the Active Points of the Interfering power from the Active Points of his power. If the result is 0 or less, his attack is totally Interfered with and does no damage; if the result is higher than 0, he can still try to hit his intended target, but his attack only has Active Points equal to the result. (The GM may rule that there's a certain minimum of effect, such as 1d6, regardless of the results of Interference.)

An attack used to Interfere does *not* have to be based on the same power (*i.e.,* a character can counter a Blast with an RKA or Telekinesis, he doesn't have to use another Blast). However, the GM may impose penalties on the Attack Roll if he feels the powers are significantly different (such as an RKA trying to interfere with an NND Blast or Drain STUN).

It's not necessary for two powers to have the same Advantages for them to Interfere with one another. An ordinary, un-Advantaged, attack can Interfere with one that is an Area Of Effect, Autofire, NND, No Range Modifier, or what have you. However, the GM may impose penalties on the Attack Roll if he feels the Advantages on either power make it significantly different from the other.

MULTIPLE ATTACK

The Multiple Attack rules specifically state that characters cannot use defensive maneuvers or Actions (such as Block or Deflection) as part of a Multiple Attack, nor make a Multiple "Attack" that consists of nothing but defensive actions. However, the GM may choose to ignore this rule, allowing characters to freely mix offensive and defensive Actions as part of a Multiple Attack. This imposes an additional -2 OCV penalty on all the Attack Rolls in the Multiple Attack — and of course, since it's a Multiple Attack the character's DCV is halved, which may negate or diminish the effectiveness of any defensive Actions involved.

SHOVE

A character can use Shove on multiple targets in two ways. The first is to Shove one target into another. Use the *Characters As Weapons* (6E2 124) for Throwing one character into another for this.

The second is to perform a Shove againt several targets simultaneously — for example, when a character's holding a staff, several thugs grab it, and he Shoves all of them off of him. (This counts as a single attack, not a Multiple Attack, unless the GM rules otherwise.) In this sort of unusual situation, the Shoving character uses his STR (plus any bonus STR from a Martial Maneuver that enhances Shove, if applicable). Use the "Combined STR" rule on 6E1 41 to determine the "group STR" of the targets for the purpose of resisting a Shove.

Example: *Three thugs attack Cheng Fei, a practitioner of Tai Ch'i Ch'uan. Cheng gets his forearm between himself and the three thugs as they try to knock him down, so he decides to push them away from him, using his Martial Shove maneuver; he has STR 40 for this purpose. The thugs have STRs of 10, 15, and 10. Their lifting capacities are 100, 200, and 100 kilograms, respectively, for a total of 400 kg. This equals STR 20 for purposes of resisting Shove. Cheng rolls 9 BODY on his dice, the thugs roll 3 on theirs, so they're thrown back 4" from their intended target!*

SUSTAINED ATTACK

This new Optional Combat Maneuver allows a character to temporarily convert an Instant attack (such as an ordinary Blast, RKA, or Drain) into a Constant attack. The attack only does 75% of its standard damage (calculated as 75% of the Active Points in the power), but it costs its full END cost every Phase that it's used. (If the power uses Charges, it uses its ordinary number of Charges every Phase it's in use.) Unless the GM rules otherwise, characters cannot Push a power while it's used to perform a Sustained Attack.

A Sustained Attack imposes a -2 OCV penalty and -2 DCV penalty. The OCV penalty only applies when he makes the Attack Roll; the -2 DCV penalty remains in effect as long as he maintains the Sustained Attack.

Using Sustained Attack requires a Full Phase Action each Phase that it's maintained. Since that means the character cannot move, if his target moves beyond the Range of his power or breaks Line Of Sight by moving behind a large object (or the like), the Sustained Attack immediately stops.

A character has to declare that he's performing a Sustained Attack before he ever uses the attack. He can't make an ordinary, Instant, attack in one Phase and then declare in his next Phase that he wants to "convert" it into a Sustained Attack.

Example: *Helios has a Blast 12d6 that he wants to use as a Sustained Attack. As a Sustained Attack it does only Blast 9d6 damage (based on 45 Active Points, 75% of the 60 Active Points in the power). However, it still costs him 6 END per Phase to use. He suffers a -2 OCV penalty on his Attack Roll, and he's at -2 DCV as long as he keeps making the Sustained Attack. He has to spend a Full Phase making the attack, and a Full Phase every Phase thereafter to maintain it.*

THROW

Here are some additional rules and options for Throw.

If a character applies the *Area Of Effect* Advantage to a Throw maneuver, the weight limit for Throws applies per target, not over the entire area.

RESISTING THROWS

Throws, and Martial Maneuvers built with the *Target Falls* Element, typically cause damage by hurling the target to the ground, but some do damage primarily from the impact that knocks the target down. A Power that allows the character to resist being Thrown sometimes also prevents him from taking damage from the maneuver. This works as follows.

If the maneuver is one where the attacker's impact knocks the target to the ground (such as Flying Tackle and some Killing Throws), the target who uses Powers to resist being Thrown still takes full damage.

If the maneuver is one where the attacker knocks the target's feet from under him (such as Legsweep and Takedown), the target who uses Powers to resist being Thrown takes only half damage from the maneuver.

If the maneuver is one where the attacker levers, unbalances, or redirects the target into hitting the ground, and all the damage comes from the impact with the ground (maneuvers such as most uses of Throw, Grappling Throw, Martial Throw, and Sacrifice Throw), the target who uses Powers to resist being Thrown takes no damage from the maneuver.

KNOCKBACK RESISTANCE

If a character has any Knockback Resistance and is prepared to use it (*i.e.,* is not attacked from Surprise), he doesn't fall when struck by Throw maneuvers where the attacker's impact knocks the target to the ground (such as Flying Tackle and some Killing Throws). However, all other Throw maneuvers work normally on him.

STRETCHING; SHAPE SHIFT

Throws may not work on characters with malleable bodies — a character with Stretching, and some forms of Shape Shift, simply manipulates or "moves" his body so the attacker cannot get leverage to throw him. The GM should adjudicate this effect on a case-by-case basis.

DAMAGE FROM THROWS

If the GM wants more detailed rules for the effects of Throws, the damage a character takes from a Throw depends in part on the surface he lands on. The surface also modifies the Breakfall roll the character can make to only take half damage (see accompanying table). These penalties are cumulative; an extremely hard, uneven surface (say, a sidewalk with a lot of broken bricks and trash lying around) adds +4d6 damage and imposes a -4 to the target's Breakfall roll.

Remember that the Breakfall roll to halve the damage taken from a fall also suffers a penalty of -1 per 2d6 of damage the Throw does. Neither that modifier nor the ones described in this chart apply to a Breakfall roll made simply to stand up without taking a Half Phase.

THROW MODIFIERS TABLE

Surface	Damage	Breakfall
Hardness		
Soft (water, a cushion or mat, extremely soft earth)	—	-0 - +1
Average (carpeted floor, average earth or sand)	+1d6	-1
Hard (wooden or tile floor, packed earth)	+2d6	-2
Extremely Hard (cement or asphalt, metal)	+3d6	-3
Evenness		
Smooth or even surface (floor, most sidewalks)	—	-0
Sloped surface (hillside, ramp)	—	-0 to -1
Bumpy, uneven surface; cluttered surface (stairs, trash-strewn alley, rocky ground)	+1d6	-1

DAMAGE & OTHER COMBAT EFFECTS

Here are some additional or optional rules regarding damage and its effects.

EFFECTS OF DAMAGE

Here are some additional rules for Stunning and Knockback.

STUNNING

Increasing a character's STUN via Healing (or any other method) can bring him back from unconsciousness, but technically it can't alter the effect of being Stunned. However, at the GM's option, if (a) the STUN lost to an attack is completely restored via Healing, *and* (b) one additional die of Healing STUN (or Simplified Healing) is applied to "eliminate being Stunned," another character could remove the effect of being Stunned from a character.

If a character has been Presence Attacked to the point where he can only take a Half Phase Action, and later in that same Segment, but before he gets to take his Half Phase Action, he's Stunned, he can recover from being Stunned by using his Half Phase Action. If a character recovers from being Stunned, and someone Presence Attacks him later in that same Segment to the point where he can only take a Half Phase Action, the character only performs a Half Phase in his next full Phase.

If a character is Stunned, and takes enough damage to be Stunned *again* before he gets to recover from being Stunned, he doesn't have to recover twice. He was already Stunned, so he can't really be "Stunned more"; one recovery from being Stunned takes care of both.

If a character is Stunned by a Constant attack, he can recover from being Stunned if he has a Phase in a Segment in which his attacker does not (and therefore in which he doesn't take damage from the Constant attack).

If a character recovers from being Stunned before the end of the Segment (*i.e.,* he was Stunned before his Phase occurred in that Segment, then used his Phase to become un-Stunned), his Constant Powers don't stop working at the end of the Segment — he recovered in time to "keep them going."

KNOCKBACK

If a character is Knocked Back and hits *nothing* — he's Knocked Back upward into the air, or is far up in the air and Knocked Back a few meters downward — he doesn't take any KB damage.

HIT LOCATIONS

Here are some additional rules regarding Hit Locations and Placed Shots.

HIT LOCATIONS AND BARRIERS

If the Hit Location rules are in use, and an attacker fires at a target who's protected by a Barrier, an ordinary wall, or some other obstacle, here's how you resolve the damage if the attack penetrates the obstacle and affects the target.

For Killing Attacks, do this:

1. First, find out if the KA does enough BODY to penetrate the Barrier. If not, the issue of the STUN is moot.

2. If the KA gets through the Barrier, subtract the Barrier's defenses from the BODY done.

3. Apply the remaining BODY to the target normally using the Hit Location rules, and calculate STUN from it.

For a Normal Damage attack, subtract the Barrier's defenses (and the character's other defenses) from the STUN rolled, then apply the NSTUN multiplier to the STUN damage the character actually takes after defenses.

HIT LOCATIONS AND VULNERABILITY

The *Vulnerability* Complication interacts with the Hit Location rules as follows:

For Killing Damage, do the following:

1. Roll 3d6 to determine where the attack hit.

2. Roll the damage dice to determine how much BODY the attack does.

3. Use the STUNx multiplier to determine how much STUN the attack does.

> 3a. If the target has a Vulnerability that increases the STUN damage, apply it at this stage, after applying the STUNx multiplier. Then subtract the target's appropriate defenses to determine how much STUN damage he takes.
>
> 3b. If the target has applicable Damage Reduction, it now applies (after defenses are applied) to reduce the STUN damage.

4. If the target has a Vulnerability that increases the BODY damage, apply it at this stage, before applying defenses. Then subtract the target's appropriate Resistant Defenses to determine how much BODY damage he takes. Then apply the Hit Location's BODYx modifier to the BODY damage that gets past his defenses (if any).

> 4a. If the target has applicable Damage Reduction, it now applies to reduce the BODY damage.

For Normal Damage, do the following:

1. Roll 3d6 to determine where the attack hit.

2. Roll the damage dice to determine how much STUN the attack does.

3. If the target has a Vulnerability that increases the STUN damage, apply it at this stage, before applying defenses. Then subtract the target's appropriate defenses to determine how much STUN damage he takes. Then apply the Hit Location's N STUN modifier to the STUN damage that gets past his defenses (if any).

> 3a. If the target has applicable Damage Reduction, it now applies (after defenses are applied) to reduce the STUN damage.

4. Determine the Normal Damage BODY the attack does by the usual method. If the target has a Vulnerability that increases the BODY damage, apply it at this stage, before applying defenses. Then subtract the target's appropriate defenses to determine how much BODY damage he takes. Then apply the Hit Location's BODYx modifier to the BODY damage that gets past his defenses (if any).

> 4a. If the target has applicable Damage Reduction, it now applies (after defenses are applied) to reduce the BODY damage.

EXPANDING THE HIT LOCATION CHART

The accompanying text box lists some optional "new" Hit Locations. These are provided only for targeting purposes; they don't change the Hit Location chart itself.

ADDITIONAL HIT LOCATIONS

Location	STUNx	N STUN	BODYx	To Hit
Finger	x1	x½	x¼	-8
Eye*	x5	x2	x2½	-12
Knee/Elbow	x2	x1	x½	-7
Spine†	x3	x1	x1	-7
Neck/Throat‡	x5	x1	x2	-9

Notes:

***:** In many cases, even well-protected characters have little or no eye protection.

†: A hit to the spine from which the target takes BODY usually results in some sort of paralysis; the extent and duration of the paralysis depends on the wound. A character can only target the spine from behind.

‡: A hit to the throat usually causes loss of voice or similar problems in addition to any other damage it causes.

ADJUSTABLE HIT LOCATIONS ⚠

As an optional rule for campaigns that use the Hit Location rules, the GM can allow characters to adjust the location they rolled by up to 1 point (not one step, one point) up or down the Hit Location chart for each 1 point by which they make their Attack Rolls. In other words, an Attack Roll that succeeds by a large margin has a greater chance to hit a vulnerable spot, thus reflecting the degree of the character's success.

> **Example:** *Renegade shoots at a bank robber. He succeeds by 3. Then he rolls on the Hit Location Table and gets an 11 — the Chest. Using this optional rule, he can adjust the 11 up or down by up to 1 point for each point he made the roll by (*i.e., *three points). So, he could take it up the chart to 10 (still the Chest), 9 (Shoulders), or 8 (Arms), or down the chart to 12 (Stomach), 13 (Vitals), or 14 (Thighs). He decides to go for the "good shot" and adjusts to 13 (Vitals) for the deadliest possible wound he can inflict.*

A character cannot adjust to a Hit Location that he can't perceive with a Targeting Sense or that's blocked from his line of fire by Behind Cover or the like.

INCREASING KILLING DAMAGE WITH HIT LOCATIONS

Some *HERO System* GMs are concerned that Killing Damage weapons don't put victims down with even the spotty regularity of real-world weapons. The *HERO System* simulates dramatic, heroic action. That means characters can take a lot of damage and keep going. You can use the Impairing/Disabling rules to get around this, but those rules are a little complicated. Or you could change all the DCs for weapons, which takes time and effort.

As a simpler option for more "realistic" campaigns, try this instead: double the BODYx Column of the Hit Location Chart for Killing Damage attacks. With this approach, the Head and Vital locations have a BODYx multiple of x4, instead of x2, with Killing Damage only (Normal Damage would still use x2). Hands, Arms, Legs and Feet would be x1 instead of x½, and Shoulders, Chest, Stomach, and Thighs would be x2 instead of x1. This makes Killing Damage weapons much more fearsome.

HIT LOCATIONS FOR MENTAL POWERS

Mental Powers do not use the Hit Location rules. However, in a psionics-oriented campaign, the GM might come up with a "Mental Hit Locations Table" representing different areas of the mind and how Mental Powers work against them. The accompanying text box provides one possible example.

MENTAL HIT LOCATION TABLE

3d6 Roll	Location	STUNx	Effect+	To Hit
3-5	Cerebellum	x1½	+15	-8 OMCV
6-9	Temporal Lobe	x0.75	-5	+1 OMCV
10-11	Parietal Lobe	x1	+0	-3 OMCV
12-14	Frontal Lobe	x1¼	+10	-6 OMCV
15-18	Occipital Lobe	x0.5	-10	+2 OMCV

STUNx: Multiply the STUN damage rolled on a Mental Blast (or similar mental attack) by this amount. (If the Mental Blast does BODY, the GM may want to apply the multiplier to the BODY as well.)

Effect+: Add this amount to the Effect Roll of a continuing-effect Mental Power like Mind Control or Mental Illusions.

RECOVERY AND ENDURANCE

The Post-Segment 12 Recovery is not perceivable. In the event a character were somehow to take damage during the Post-Segment 12 Recovery, that would occur immediately after he actually "takes" the Recovery and gets lost/used STUN and END back. A character can choose not to take a Post-Segment 12 Recovery if he doesn't want to for some reason.

A character can Push a power that has the Advantage *Costs Endurance Only To Activate* (+¼), at the standard cost for Pushing (and subject to the usual rules for Pushing). The cost for Pushing must be paid every Phase that the Push is maintained. For example, if a character Pushes his Darkness to get +2m Radius, he pays 10 END every Phase that he wants to maintain that extra +2m, even if his Darkness has Costs Endurance Only To Activate.

CONTESTS OF POWER

A *Contest Of Power* can occur whenever two characters attack each other with some form of Ranged attack they can maintain over time (in other words, attacks with Charges or physical weapons may not work). A Contest Of Power can only occur in a one-on-one duel, or at an appropriately dramatic moment; it's too complex and time-consuming for regular combat use.

Use the following steps to determine the outcome of a Contest Of Power:

1. One character ("the Attacker") launches a Ranged attack at another ("the Defender"). This attack can be a Blast, a Ranged Killing Attack, or even such powers as Mental Blast or Telekinesis. The GM determines what Ranged attacks can be used, if necessary; typically they're attacks that directly cause damage in some way.

2. The Defender, who *must* have an Action available, decides if he wants to counter the attack with one of his own. The Defender can Abort to a Contest of Power only if he has a Phase in this Segment but his DEX has not yet occurred in the initiative order. The Defender cannot use any power with a longer *Extra Time* Limitation than the one the Attacker uses.

3. Unless the GM rules otherwise, a Defender can only counter an incoming attack if his attack has a related special effect. "Related" means the two attacks have *either* similar energy types/special effects (such as Fire/Heat and Light, Magic and nearly anything, or Magnetism and Electricity) *or* opposing energy types/special effects (a Light-based attack versus a Darkness-based one, or Fire/Heat versus Ice/Cold or Water). The attacks used do *not* have to be based on the same power (*i.e.,* a character can counter a Blast with an RKA or Telekinesis, he doesn't have to use another Blast). However, it usually isn't possible for a character to counter an Mental Blast without having mental powers of his own. The special effects of an attack should determine if and how it can be contested.

In some cases the GM may decide that it's cinematic and fun to let two characters engage in a Contest Of Power even if they don't meet the above qualifications. In that case any two powers suffice, regardless of their special effects.

4. Once both characters have declared their attacks, they make their Attack Rolls (including all modifiers for Combat Skill Levels, Spreading, and the like). The Attacker has to roll to hit the Defender's DCV, while the Defender has to roll to hit the Attacker's current OCV. If they both miss, there are no further effects. If one hits and the other misses, determine damage as normal. If both hit, the Contest of Power has begun. Since they both performed an attack this Phase, neither character may take further actions.

5. Once the Contest begins the point of impact for the two attacks is midway between the two participants (*i.e.,* if two characters 36m apart enter into a Contest Of Power, the starting point for the contest is 18m from each character). Alternately, the GM can place the point of impact closer to the character who made his Attack Roll by the least; subtract how much he made his roll by from how much the other character made his roll by, and move the impact point 2m per point closer to the "lesser" character. (But even using this method, typically the impact point moves no more than halfway the distance to the character who made his roll by the least, regardless of the numbers.)

Characters involved in a Contest Of Power are at ½ DCV due to strain and concentration and cannot move, even if the Contest Of Power takes more than one Phase. If a third character attacks one (or both) of the participants in a Contest Of Power, he may disrupt the Contest. If he does damage to a participant, but doesn't Stun him, Knock him Out, or do Knockback to him, the Contest continues as normal. If he Stuns him or Knocks him Out, the other participant's attack in the Contest automatically succeeds and hits the Stunned/Knocked Out character. (It doesn't Coordinate with or otherwise add to the attack that disrupted the Contest.) If he does Knockback to a participant, the Contest ends without either character damaging his opponent.

If a character moves through the beams of energy or other effects of the Contest Of Power, he takes damage from both effects and the Contest ends.

6. To determine the outcome of a Contest Of Power, each character rolls his dice of damage and counts the BODY in the usual manner for the type of attack used. The character with the higher BODY wins this Phase. The winner subtracts the loser's BODY total from his own, and then moves the point of impact that amount times 2m toward the loser's location. (Alternately, the GM can have the characters use Knockback done instead of BODY rolled.) The GM can restrict the number of meters the impact point can move in a given Phase if he sees fit; this can draw out the Contest and make it a bit more tense in some situations. Various Advantages and Limitations can affect this die roll; see below.

6a. Effect of Advantages:

Advantages not listed have no special application in a Contest Of Power.

Area Of Effect: An Area Of Effect attack cannot be opposed in a Contest Of Power, unless the opposing attack also has the *Area Of Effect* Advantage. If a character uses an Area Of Effect attack to contest a normal attack, determine the results normally, but add +1 BODY for every 2m of Radius/Cone/Line.

CONTEST OF POWER EXAMPLES

Blastron the Battler (DEX 26, SPD 6) is fighting his adversary Chiller (DEX 26, SPD 5). Chiller unleashes a Blast12d6 based on Ice/Cold energy. Blastron, not to be outdone, responds with a Blast 14d6 based on Fire/Heat. Both succeed with Attack Rolls. The Contest Of Power has begun!

Since the two warriors are standing 20m apart, the impact point is 10m away from either character. At this point both characters roll their dice. Chiller rolls only 10 BODY, while Blastron rolls 15 BODY. Blastron wins, and the impact point moves10m towards Chiller, hitting him.

Now, assume both Blastron and Chiller had Blast 12d6 instead. Starting on Phase 12, Chiller rolls 12 BODY, while Blastron rolls 14. The impact point moves 4m towards Chiller. On Segment 2, Blastron's Phase, the impact point moves 2m closer to Chiller, while on Chiller's Phase in Segment 3, it moves 2m towards Blastron. On Blastron's Phase in Segment 4, it moves 2m back towards Chiller, while on Chiller's Phase 5 it moves 2m back towards Blastron. Finally, on Blastron's Phase in Segment 6, it moves 2m towards Chiller, and on Segment 8 Chiller and Blastron roll again, since they both have a Phase. Blastron rolls 12 BODY, while Chiller gets only 9 BODY. The impact point moves 6m towards Chiller, and on Blastron's Segment 10 his blast hits him, at which point he decides he'd rather not be in any more examples.

Autofire: An Autofire attack adds +1 BODY to the Contest result for every shot that hits.

Constant: See Step 8 below.

Double Knockback: Double Knockback increases the number of DCs in an attack (and thus the number of dice rolled for damage) by 75% for purposes of a Contest Of Power.

Indirect: Generally, attacks with this Advantage cannot be opposed, or be used to oppose, in Contests Of Power, but the GM may allow it if the special effects and the situation are appropriate.

6b. Effect of Limitations:

Limitations not listed have no special application in a Contest Of Power.

Beam, No Knockback: Characters cannot use attacks with these Limitations in a Contest Of Power. If used, they automatically fail.

Reduced By Range: An attack with this Limitation subtracts damage dice based on the distance between the character and the point of impact before rolling for the result of a Contest Of Power.

7. If the point of impact moves to a character's location, his attack is overwhelmed. His opponent's attack automatically hits him, with damage determined normally. If the impact point remains somewhere between the two characters, they are in a stalemate and the Contest continues on the next Phase.

If at any point the BODY total for one blast is twice or more that of the other, the attack with the higher BODY total instantly overwhelms the other and goes on to hit its intended target automatically.

8. If the initial Contest Of Power ends in a stalemate, then the Contest continues. Characters roll on any Segment in which they both have an Action Phase, at the DEX of the character who moves first in that Segment (including Lightning Reflexes). If only one character has a Phase during a Segment, he automatically moves the Contest point 2m towards his opponent without rolling. An attack with the *Constant* Advantage moves the Contest point 2m towards an opponent every Segment the opponent doesn't have a Phase (this 2m is not cumulative with the 2m obtained in Phases only the character has.)

Characters must spend END to keep the Contest Of Power going, but each of them spends this END only on his *opponent*'s Phases. Character can Push their attacks if they wish, and can spend STUN as END if needed. A character can end a Contest Of Power voluntarily at anytime, either by accepting the attack or by executing a Dive For Cover on his Phase.

LEAVING FOOTPRINTS IN CONCRETE

The crushing rules (6E2 125) allow you to determine how much damage heavy characters (or objects) do to surfaces like the ground, a street, or the floor of a building by walking on them, if you want to (most GMs don't bother; it's time-consuming and often not much fun). This includes any heavy character, whether his heaviness comes from Density Increase, Growth, a Physical Complication, the special effects of a power, or the like. All you have to do is apply crushing damage to the surface and interpret the results in light of the situation. You may even want to increase the character's weight for these purpose to represent the fact that it's all concentrated into one relatively small footprint.

As a quick approximation, compare the number of dice of crushing damage the character can do to the PD of the surface. For every two dice beyond the PD (round up), each step the character takes sinks 1 inch into the ground. At the GM's option, this may slow a character down considerably — subtract 2m of Running (or other ground-based Movement Power) for every two inches the character sinks into the ground (but leave him a minimum 2m Running).

Example: *With his Density Increase activated, Blackstar weighs 400,000 kilograms, meaning he does 24d6 crushing damage. When walking on stone (PD 5), he sinks ((24-5)/2=) 10 inches into the ground — up to his calves! Normally he runs at 12m per Phase, but when he's sinking so deep into the ground with every step, he's reduced to 2m per Phase.*

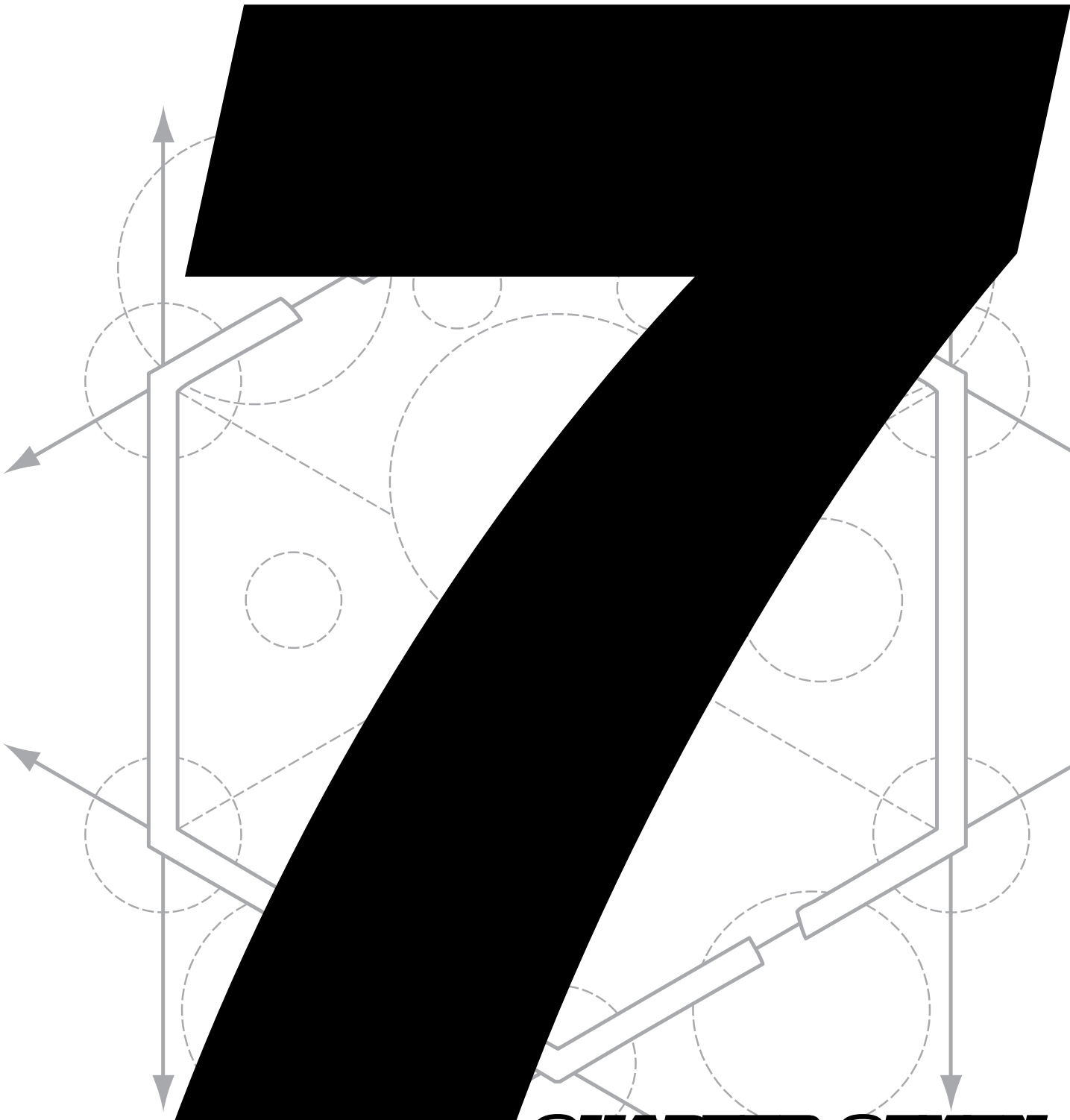
PUSHBACK ⚠

Pushback is a character's ability to shove an opponent away from him with an attack. In some cases he does this to put some space between himself and his foe, but sometimes it has other advantages (such as slamming an opponent into a wall or knocking him off a roof).

To use Pushback, a character trades damage for the possibility of doing additional Knockback. The player declares his desire to have his character make a Pushback attack instead of a regular attack. If the attack hits, the player decides how much damage to trade off. For every 1 DC sacrificed, the attack does +2 BODY solely for purposes of calculating Knockback. Visually, the character may use an attack to "throw" an opponent away from him, or project *ch'i* into an enemy to force him away.

Example: *Two karateka, Maeda and Egami, are fighting on a bridge over a deep gorge. Maeda Throws Egami, injuring him and putting him near the edge of the bridge. Egami decides to fake a serious injury rather than get to his feet and risk being knocked off of the bridge by Maeda's next attack. He makes his Acting roll by 3; Maeda misses his PER Roll and falls into Egami's trap. Maeda leaps at Egami, planning to knock him off the edge. Egami tries a Pushback attack to move Maeda far enough away from him that he can get up and move away from the edge before Maeda's next attack. He uses his 10d6 side kick and decides to sacrifice 5 DC for +10 BODY for Knockback purposes. He hits Maeda and rolls 5d6 for damage: 17 STUN and 5 BODY. For purposes of Knockback, this means 15 BODY. The Knockback roll comes up 9, and Maeda goes flying back 12m. The GM explains that Egami got his foot in the pit of Maeda's stomach and shoved him away. Unfortunately for Maeda, the bridge is only 8m wide....*

The GM should only adopt this rule only if it's appropriate and useful in the campaign. In some games it may have the effect of making the *Shove* Combat Maneuver and the *Double Knockback* Advantage effectively useless.



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CHAPTER SEVEN

THE ENVIRONMENT

THE ENVIRONMENT

Here are some additional, expanded, or optional rules pertaining to the environment.

OPTIONAL VELOCITY DAMAGE

This system presents more complicated, and thus optional, rules for determining damage based on velocity. This primarily means falling, but it also includes Move Bys, Move Throughs, and the damage done to or by a thrown object.

This system is useful for gamers who (a) would prefer a more "realistic" system for determining velocity damage (as compared to, for example, the simplified system used to determine falling damage), and/or (b) find that Move Bys and Move Throughs do so much damage that they unbalance the campaign.

Velocity Factor

The key to the Optional Velocity Damage system is a character's *Velocity Factor* ("VF"), a number derived from his velocity in meters traveled per Turn. It indicates the effect of his velocity in damage calculations. Velocity Factor, and thus velocity damage, increases geometrically, rather than arithmetically as it does in the standard system. Thus, characters gain much less damage for velocity when performing Move Throughs and Move Bys using these rules. To determine a character's VF in a given Phase, use the Velocity Factor Table.

Example: *Defender has SPD 5 and Flight 50m. This means he can travel 250m per Turn, giving him a VF of 6. In Phase 8, he needs to move quickly, so he accelerates to Noncombat Movement (Flight 100m). For that one Phase, his VF increases to 8, since at the rate of 100m per Phase he travels 500m per Turn.*

VELOCITY FACTOR TABLE

Meters/Turn	Velocity Factor	MPH
1-8m	0	1
9-12m	0	2
13-16m	0	3
17-24m	1	4
25-32m	1	6
33-48m	1	9
49-64m	2	12
65-96m	3	18
99-128m	4	24
129-192m	5	36
193-256m	6	48
257-384m	7	72
385-500m	8	93
501-750m	9	140
751-1,000m	10	186
1,001-1,500m	11	280
1,500-2,000m	12	372
2,001-3,000m	13	560
3,001-4,000m	14	688 (about Mach 1)
4,001-6,000m	15	
6,001-8,000m	16	
8,001-12,000m	17	2,237 (Mach 3+)
12,001-16,000m	18	
16,001-24,000m	19	
24,001-32,000m	20	

Controlled And Uncontrolled Velocity

Movement in the Optional Velocity Damage system is Controlled or Uncontrolled. Controlled movement means the character (or object) moves under its own guidance when attempting to hit or ram the target, so it's prepared for the impact. Uncontrolled movement means the character (or object) is not under its own control or prepared for the impact; this includes falling damage and damage from being thrown.

Velocity Damage

The Velocity Damage Table summarizes information concerning the various Maneuvers and other situations in which velocity modifies damage.

VELOCITY DAMAGE TABLE

Action	OCV	DCV	Damage/Effect
Falling	+0	+0	(MASS + (VF)d6) x2
Grab By	-3	-4	Move By and Grab object, +(VF)d6 to STR
Move By	-2	-2	STR/2 + (VF)d6
Move Through	-(VF)	-3	STR + (VF)d6
Throw	+0	+0	Varies

FALLING

Under the Optional Velocity Damage system, falling is a form of Uncontrolled movement. Calculate the damage as if the character performs an Uncontrolled Move Through on the object he impacts and does no Knockback (*i.e.,* the character and the object he hits both take full damage) — and then *double it.* Substitute the character's mass for his STR for purposes of determining damage: figure out what STR is needed to lift the character (for example, 10 STR for a normal human of 100 kilograms mass) and use that to calculate the Move Through damage.

OPTIONAL FALLING TABLE

Segment	Velocity/ Segment	VF	Distance Fallen	Notes
1	10m	4	4m	2nd story
2	20m	6	20m	6th story
3	30m	7	44m	13th story
4	40m	8	80m	22nd story
5	50m	9	124m	33rd story
6	60m	9	180m	50th story
7	60m	9	240m	65th story

Example: *Ironclad has been thrown off of a tall building by one of his enemies. He is falling, and will reach terminal velocity (60m/Segment, or 720m/Turn) before he hits the ground. Ironclad has bought Density Increase and weighs 6,400 kilograms. It requires a 40 STR to lift him, so when he hits the ground he'll take ((8d6 [damage from STR] + 9d6 [VF]) x 2) = 34d6 of Normal Damage. Ouch!*

The Optional Falling Table provides rough guidelines for how far a character will fall, and how fast, in Earth gravity.

MOVE BY; MOVE THROUGH; GRAB BY

Move By and Move Through are forms of Controlled movement in which a character moves past someone and strikes them (Move By) or deliberately runs into ("rams") another character or an object (Move Through). They work as they do under the standard rules, but the damage done depends on the character's VF, not his meters of movement.

Grab By is a form of Controlled movement in which the character moves past someone and Grabs an object from him. It works as it does under the standard rules, but the bonus to the character's STR derives from his VF, not his meters of movement.

THROW

A Throw is a form of Uncontrolled movement in which a character or object is propelled at another character or object by the Thrower's STR.

If a character throws an object at a target, standard rules for throwing objects and for the size and shape of an impromptu weapon apply. Of course, if the object in question is defined as a power (for example, a Throwing Knife bought as an HKA 1d6, Ranged), it does the damage bought for it, not damage based on its PD+BODY and the thrower's STR.

If a character throws another character, the Optional Velocity Damage system comes into play. The Thrown character is performing an Uncontrolled Move Through on whatever he hits, and automatically takes full damage. However, the Thrower's STR is halved for purposes of calculating damage, and the OCV and DCV modifiers for a Throw are not based on those for a Move Through.

To determine the VF for such a throw, consult the Throwing Table to determine how far the thrower could throw the victim in a Phase. Multiply that number by 12 to determine a velocity per Turn, then consult the Velocity Factor Table above to get a VF. If the object is unbalanced, subtract -1 from the VF; if it is non-aerodynamic, subtract -1 from the VF.

Example: *Grond (STR 65) wants to throw Lazer (who weighs 200 kg, counting all of the equipment he's carrying) into a wall. Since it only requires 15 STR to lift 200 kg, Grond has an extra 50 STR. He is making a Running Throw, so he can throw Lazer 80m. Multiplied by 12, this gives a velocity per Turn of 960m, which means a VF of 10. However, Lazer is unbalanced and nonaerodynamic, so Grond must subtract 2 from the VF, for a total of 8. Thus, if Grond hits the wall with Lazer, Lazer and the wall will take (7d6 [13d6 from STR x ½] + 8d6 from VF) = 15d6 damage. Lazer will probably break through the wall and keep going.*

DROPPED OBJECTS

Dropped objects are performing an Uncontrolled Move Through on whatever they hit (such as a hapless PC), but this Move Through cannot be Blocked. Calculate the dice of damage as for Falling. Whoever or whatever is hit with the falling object takes that many dice of damage, to a maximum of the object's PD+BODY.

ELECTRICITY

The use of Electricity as a power has many possible implications and can cause all sorts of secondary effects. As always, the GM can use these, or not, as he sees fit.

CONDUCTIVITY

Typically electricity prefers to follow the path of least resistance, which means the path of the most conductive material in the vicinity until something grounds it. In "realistic" terms, a bolt of electricity fired through the air would need a "carrier" trail of ionization to travel down to remain reasonably accurate.

At the GM's option, an electricity attack that doesn't travel directly through highly conductive material (such as water or metal) suffers a -1 or greater OCV penalty — the more conductive materials that are nearby, the greater the penalty. In this situation, a missed Attack Roll usually means that some feature of the local environment that's more conductive than the target attracted the Electricity attack and took the damage. Alternately, the GM can have characters make Activation Rolls to use electricity attacks in the presence of lots of highly conductive materials; a failed roll means the attack "grounds" in some object and doesn't affect the target at all.

On the other hand, the presence of conductive materials may make it possible for a character to project an electricity attack with an Indirect effect. For example, if the character and his target are both standing on a metal floor or in the same body of water, the character could use his attack so that it strikes from the conductive material, rather than in a "straight line" between himself and his target. Doing this typically requires a successful Power: Electricity Tricks roll, or a roll with a similar Skill, but the GM may allow it automatically if preferred. Characters could also buy this as a Limited naked *Indirect* Advantage that could apply to any Electricity attack.

ELECTRICAL DEVICES

Out of combat (or similar crisis conditions), a character with Electricity powers may be able to turn common electrical devices (such as household appliances) on and off simply by touching them (or perhaps even over a range of up to 6m). He cannot use this ability in combat or in any way that has a combat effect; to do that, he has to buy it as a power (see the *Cyberkinesis* rules on APG 70).

HEAT

Electricity also generates heat. The GM might apply the rules from the *Fire* section in 6E2 (or below) when an Electricity attack strikes something that's potentially flammable... though even the most intense Electricity power isn't as hot as a Fire/Heat power with the same Active Points. If appropriate, reduce the roll to see if a flammable object catches on fire by 2 (or more).

LIGHT

Electricity is bright, and thus can provide light to a character who can manipulate it. Generally this doesn't have a real game effect, but in some cases it might provide a +1 Sight PER Roll bonus to counteract modifiers for darkness, shadow, and the like. Similarly, Linking a Sight Group Flash to an Electricity attack is appropriate.

RECHARGING

The presence of so much electricity in the modern world (via outlets, transformers, machinery, and the like) may be useful to Electricity-manipulating characters. For example, perhaps a tired Electricity user, or one preparing for a big battle, could "recharge" himself or gather power from common sources. If he wants to do this frequently, he can model it as various powers (Limited REC for an Endurance Reserve, an Aid that only works in the presence of a source of electricity), but if he only does it rarely the GM might allow it with a successful Power: Electricity Tricks roll or the like.

SHORT-CIRCUITING AN ELECTRICITY USER

At the GM's option, there might be ways to "short circuit" an Electricity user to either weaken his powers or prevent him from using them temporarily (probably 1d6 Segments, at the most, but possibly longer if appropriate for dramatic purposes). One way of doing this might be to soak him in water, but that could make it too easy for heroes to take Electricity-using villains out of the fight. Another possiiblity is to think of the Electricity user's arms and legs as "live wires" — if another character can somehow "cross" them (perhaps by using STR to forcibly Grab both arms and literally cross them), that could play havoc with the Electricity user's powers.

FIRE

For the most part, you can handle the effects of fire via improvisation and, if necessary, the rules on 6E2 150-52. But expanded rules may suggest ways to use fire you hadn't previously considered and make some in-game situations easier to adjudicate. If you like, use the following rules to determine how a fire spreads, burns, and dies out.

FIRE CHARACTERISTICS

For purposes of the advanced rules, treat a fire as a sort of character with the following Characteristics:

BODY: A rough measure of the heat and intensity of a fire. It governs the damage and flammability of the fire. It also determines how easy it is for someone to use Adjustment Powers on a fire to snuff it out (or enhance it).

You determine a fire's BODY per 1m radius Area. Take the number of Active Points used to determine the damage done by the fire in a given 1m radius Area. Divide that number by 2 to derive the BODY of the fire in that 1m radius Area.

SIZE: This measures how many 1m radius Areas a fire occupies. Size changes as a fire grows and spreads, is extinguished, dies out in places, and so forth.

SPEED: A fire's SPD determines when and how quickly (a) it spreads, and (b) it does damage to someone in the midst of it. All natural fires are SPD 2, but unnatural (supernatural, superpower-enhanced, and so forth) fires may burn with higher SPDs. Assume all fires act last in a Phase, after all characters and other effects have acted.

END RESERVE: A fire's Endurance Reserve measures how much fuel it has. Technically it's more a "Characteristic" of the local environment than the fire itself. When the Endurance Reserve drops to zero, the fire burns out.

DAMAGE: A fire's DAM rating indicates how much Energy Killing Damage the fire does to persons and things within it, or that contact it. In the case of normal, natural fires, the maximum DAM a fire can have is 1½d6 outdoors, 2d6 indoors. Unnatural or unusual fires can exceed this ceiling.

FLAMMABILITY: A fire's FLAM rating indicates how likely the fire is to spread, as defined by an "Activation Roll." Certain conditions, such as the presence of highly flammable objects or being downwind, can improve FLAM, as described in the accompanying table.

HOW FIRES CAUSE DAMAGE

Generally, you should treat a fire as a Constant Area-affecting attack (see 6E1 127). Thus, a character takes damage from a fire on the Segment when he moves into the fire, and on every Phase the fire has thereafter (as indicated by its SPD).

FIRE BODY, DAMAGE, AND FLAMMABILITY

BODY	Damage	Flammability	Notes
1	1 point to ½d6	9-	Candle
2	1d6 to 1d6+1	10-	House Fire
3	1½d6 to 2d6	11-	Raging House Fire
4	2d6+1 to 2½d6	12-	
5	3d6 to 3d6+1	13-	Chemical Fire
6	3½d6 to 4d6	14-	Elemental Fire (magic)
7	4d6+1 to 4½d6	15-	Demonic Fire (magic)
8	5d6 to 5d6+1	16-	
9	5½d6 to 6d6	17-	Plasma Fire

FLAMMABILITY MODIFIERS, GENERAL

Condition	Modifier
Damp conditions	-1 to -3
Fire retardant substances present	-2 to -4
Extremely combustible materials (*e.g.,* accelerants)	+5 or more
Highly combustible materials (*e.g.,* loose papers)	+2 to +4
Lots of fuel present	+1
Very little fuel present	-1
Person setting fire succeeds with a Demolitions roll	+1 per 2 points roll is made by

FLAMMABILITY MODIFIERS, DOWNWIND

Wind	Meters Per Turn	Wind Speed (MPH)	Modifier
None	0m	0	-0
Very Light	24m to 72m	4-17	+1
Light	96m to 144m	18-30	+1
Moderate	168m to 216m	31-44	+2
Heavy	240m to 288m	45-57	+2
Very Heavy	312m to 343m	58-64	+3
Storm Force	349m or more	65 or more	+4

However, unlike with standard Area-affecting attacks, if a character moves through multiple 1m radius Areas of a fire in a Segment, he takes damage from *each 1m radius Area* he moves through (his defenses apply to each one, of course). In effect, each 1m radius Area of a fire is a separate Constant area-affecting attack.

Fire damage is Killing Damage and Energy damage. Secondary effects, such as smoke, are bought in other ways (see below). Neither fire nor the related effects it causes (such as smoke or superheated metal) do Knockback.

HOW FIRES SPREAD AND GROW

Every time a fire has a Phase, the GM should make a Flammability roll. If the roll succeeds, the fire intensifies and/or spreads.

All fires begin as a 1 point Killing Attack. When a Flammability check succeeds, increase the fire's damage by 1 DC (which may change its BODY, DAM, and FLAM). When a fire reaches its maximum possible DAM (as noted above, for natural fires this is is 1½d6 outdoors, 2d6 indoors), it starts to spread to adjacent Areas. At the GM's option, a fire can start to spread earlier instead of gaining DCs; this is particularly appropriate in environments with a lot of easily-flammable material.

For greatest "realism" and accuracy, the GM should make a Flammability check for *each 1m radius Area* of a fire. However, that can significantly slow down the game. To speed things up, the GM should do one of the following:

- make his rolls in advance so that he knows what happens in the absence of PC action
- make one roll for the entire fire, using the FLAM of the 1m radius Area with the highest BODY. If the roll succeeds, increase the DCs of all 1m radius Area s by 1, and/or have the fire spread appropriately.

The GM can always dispense with a Flammability roll in the interest of common or dramatic sense.

SPREADING FIRES

The GM has discretion over which areas a fire spreads into. Generally, fires spread outward from the area where they begin, either (a) along a path of flammable substances, and/or (b) as directed by the wind and air pressure. Because the hot gases in flames rise, fires often spread upward along walls, tree trunks, and the like; upward tends to offer the easiest "path along a flammable substance."

When a fire reaches a barrier such as a wall or a door, it stops spreading, but it inflicts its damage on the barrier in each of its Phases. If the fire "reduces" the barrier's BODY to 0, that 1m radius Area of the barrier catches on fire. The GM should then begin tracking damage to that part of the barrier from being caught on fire. When the BODY of that 1m radius Area of barrier reaches 0, it's burned all the way through, leaving a 1m radius hole.

HOW FIRES BURN OUT AND FADE AWAY

Technically, each 1m radius Area of a fire should have its own Endurance Reserve, and the fire dies out in that 1m radius Area when that 1m radius Area's Endurance Reserve drops to 0. However, that would require a nightmarish amount of bookkeeping, so these rules opt for an easier way. Each overall fire, no matter how large, has a single Endurance Reserve. When it spreads to a new area, it adds the Endurance Reserve of that 1m radius Area to the total reserve. See the accompanying table for suggested Endurance Reserve additions based on the substances in the newly enflamed 1m radius Area.

Every phase that a fire burns, it has to pay END. The END Cost of a fire equals the base END of the Killing attack, plus 1 END per every doubling in size the fire is over one 1m radius Area (a 2m radius fire is +1 extra END, a 3-4m radius fire is +2 END, 5-8m radius is +3 END, 9-16m radius is +4 END, 17-32m radius is +5 END, and so on). When the Endurance Reserve of a fire drops to 0, each 1m radius Area has to make a Flammability check every phase to remain ablaze. When all 1m radius Areas are extinguished, the fire is out, though ashes remain.

ENDURANCE RESERVE ADDITIONS

Substance In 1m Radius	END Added
Accelerant (any amount)	+50-100
Brick, concrete, stone	+0-10
Brush	+20-30
Paper, cardboard	+60-70
Wood	
Damp	+10-20
Average	+30-40
Dry	+50-60

"Substance in 1m Radius" assumes that at least half of the area contains the substance in question, or that the substances is otherwise present in large amounts. (Accelerants such as gas, kerosene, paint thinner, and the like are an exception; any reasonable amount of them qualifies for the modifier.) The GM should adjust the END added based on how much of the substance there is, how flammable he judges it to be, and so forth.

REFUGE IN THE MIDST OF A FIRE

People trapped in a fire may attempt to find a safe place with a PER Roll modified by the thickness of the smoke (-1 for trace of smoke or a light amount of smoke; -2 for moderate amounts of smoke; -3 for large amounts of smoke). A "safe place" is one that hasn't caught fire yet, though it's probably exposed to tremendous heat (see *Heat,* below).

Characters who wrap themselves in a wet blanket (or the like) receive +2 ED against the fire.

SMOKE

Fire in a confined space creates smoke, which does NND Damage; the defense is Life Support (Self-Contained Breathing). Treat this as a Constant area-affecting attack, but characters caught in a smokey area only take damage once in each of the fire's Phases, not once per 1m radius Area they move through. The accompanying table indicates the amount of smoke damage.

It takes a fire time to fill an area with smoke. Assume that one 1m radius Area of fire generates a 1m radius Area of smoke per Turn, with lesser fires filling proportionately smaller volumes.

SMOKE DAMAGE

Conditions	Damage
Confined area	
Trace of smoke	1 point
Moderate amount of smoke	½d6
Large amount of smoke	2d6
Open area, large amount of smoke	1 point
Chemical fire	+1d6

HEAT

As noted above under "Refuge," even an area that's not on fire can be harmful if it's in the midst of a fire — the heat alone can be enough to burn and blister skin, dehydrate and exhaust people, and so forth. A 1m radius Area that's surrounding by fire by three or more 1m radius Areas that are on fire does one-quarter damage if a character stands in one place, and only half damage if he attempts to move through the fiery area (standard rounding rules apply). Characters with Life Support (Safe Environment: Intense Heat) do not suffer this damage.

OTHER EFFECTS

Some other possible damaging effects of a fire include:

Hot Metal: Inside a burning building, metal (doorknobs, steel desks, and the like) can become superheated. If touched, superheated metal without protection does 1d6 Normal Damage per DC of the deadliest surrounding fire's Killing Damage (*e.g.,* metal heated in a normal house fire [1d6 KA, or 3 DCs] inflicts 3d6 Normal Damage). If a character uses something to handle the hot metal (such as a towel or wet rag), it may act as ED against the damage, or in the GM's option may prevent him from taking any damage at all. If the character has personal Defense Powers (like ED Resistant Protection), they provide their usual protection.

Spray Of Sparks: When something begins to combust, there's often a spray of sparks. Anyone caught within 2m of a spark cascade takes 1d6 x 6 points of fire Killing Damage.

RUINS

Many settings and genres, such as Post-Apocalyptic and certain types of Fantasy games, feature extensive ruins — cities and other areas men once lived and worked in that were destroyed somehow. Ruins can be a source of supplies, shelter, and even wealth... but they can also harbor enemies and other dangers.

From a GMing perspective, what you need to know is (a) the condition of a ruin, (b) the dangers (if any) posed by that ruin, and (c) what the characters might find in that ruin. These rules address the first two points, since the contents of ruins vary wildly based on genre, campaign type, and GM preference.

CONDITION OF THE RUINS

Typically the easiest way to establish the condition of a ruin is for you to choose it yourself based on the dramatic needs of the adventure you're creating. In some cases, though, you might want to determine what state a ruin's in randomly using the accompanying table. It uses four basic timeframes — Immediately After, Years Later, Generations Later, and Centuries Later — to indicate when the characters explore the ruin in comparison to when it was destroyed. Then it establishes four states of ruination:

Pristine: The building is undamaged, or virtually so. This may mean no one's ever explored it, so it's filled with salvage... but security devices and other threats may remain intact and functional.

Minor Damage: The building has suffered minor damage — some cracks here and there, perhaps a few collapsed interior walls — but is basically intact and structurally safe to venture into.

Major Damage: The building's been damaged to the point where it's not entirely structurally safe to go into. Every character who ventures inside has to make a Survival (Ruins) roll (or if he doesn't have that Skill, a DEX Roll at -2). If he succeeds, nothing bad happens to him. If he fails, he suffers a mishap: a rotten floorboard breaks beneath him and he falls; a wall or ceiling collapses on him; or the like. See *Dangers Amid The Ruins,* below, for suggested rules.

Severe Damage: The building's been so badly damaged that going into it means taking your life in your hands. Use the rules for Major Damage, but the Survival (Ruins) roll is at -2 (and the DEX Roll at -4). A failed roll is likely to be even more disadvantageous or dangerous.

Collapsed: The building has totally collapsed. Getting inside will probably involve using the *Contortionist* Skill, spelunking, or heavy labor. Once the characters do get "inside," it's probably fairly safe (roll as for Major Damage, if appropriate), but the odds of finding usable salvage are slim.

RUINS TABLE

Roll*	Immediately After	Years Later	Generations Later	Centuries Later
1-1	Pristine	Pristine	Minor	Minor
1-2	Pristine	Minor	Minor	Minor
1-3	Minor	Minor	Minor	Major
1-4	Minor	Minor	Major	Major
1-5	Minor	Major	Major	Major
1-6	Major	Major	Major	Severe
2-1	Major	Major	Major	Severe
2-2	Major	Major	Severe	Severe
2-3	Severe	Severe	Severe	Severe
2-4	Severe	Severe	Severe	Collapsed
2-5	Severe	Severe	Collapsed	Collapsed
2-6	Collapsed	Collapsed	Collapsed	Collapsed

MODIFIERS*

Value	Circumstance
+2	Primarily wooden structure
-1	Primarily metal and steel structure
-2	Primarily brick or concrete structure
-1 or more	A particularly sturdy or well-protected structure
+1 or more	A structure that's flimsy, highly exposed to the elements, or the like

***:** Roll two dice, counting one as 1 (1-3) or 2 (4-6), and the other as a 1-6 roll. Modifiers apply to the second die roll. "Negative" ones indicate a particularly sturdy or well-protected building; "positive" ones buildings that are more susceptible to being damaged or eroded.

Note that this table is "dramatically biased" toward leaving structures intact and explorable. "Realistically" there's a much greater chance that buildings would suffer Major, Severe, or Collapse damage, particularly over long periods of time.

DANGER AMID THE RUINS

A creative GM can come up with all sorts of threats to put in a ruin. Some possibilities include:

PHYSICAL DANGERS

First and foremost, the ruin itself may pose a danger if the structure's not safe (*i.e.,* it's suffered Major or greater damage). Some of the things that could happen to the character include:

Floor giving way: The floor beneath a character could break. Roll 2d6 and apply the Encumbrance modifier for DEX Rolls. On a 2-6, the character breaks entirely through the floor and falls down to the floor below (if that floor is rotten, he may break through and keep falling, and so on and so on until he reaches the ground). Use the rules for Falling damage, but with a minimum of 2d6 to represent the trauma of breaking through the floor. On a 7-12, the character's foot or leg simply breaks through the floor; he's trapped and at ½ DCV until he uses a Full Phase Action to free himself. At the GM's option, a character who may break through a floor can make a DEX Roll, for every point he succeeds by, add +1 to the 2d6 roll.

Ceiling Collapse: Part or all of a ceiling collapses on the character. He takes 1d6 of d6 of Normal Damage from the impact, and on a 1 on 1d6 is pinned by the debris (he has to make a STR Roll or Contortionist roll [either modified by the GM as appropriate] to get free).

Wall Collapse: Part or all of a wall collapses on the character. He takes 2d6 of d6 of Normal Damage from the impact, and on a 1-3 on 1d6 is pinned by debris as described above.

Building Collapse: An entire building might collapse on the PCs if they're not careful (this is most likely if the building's already suffered Severe Damage). Everyone in the building takes a minimum of 3d6 of d6 of Normal Damage, and in particularly grim campaigns the GM may simply rule that there are no survivors. Anyone who does survive is almost certainly trapped, as described above.

OTHER DANGERS

Inhabitants: Perhaps the ultimate danger is that an animal, human, mutant, or monster lives in the ruin and will fight to protect its home (or perhaps sees the PCs as prey to be stalked). This implies that the ruins are physically safe, at least for that inhabitant (a small, agile predator may be able to live safely in a ruin that a big, lumbering human would quickly collapse).

Berserk Machines: Security devices, traps, cleaning-bots, spells of warding, and other highly-automated "devices" could continue functioning long after a civilization falls... though damage to their parts or programming may affect them. They may regard PCs exploring "their" home as dangerous animals to be exterminated, or perhaps mistake them for their "creators" and get angry when it turns out they're not.

Live Wires: If a ruin still has electrical current, exposed wiring could deliver a nasty shock to the PCs... especially if their society has long since forgotten what electricity is.

Pockets Of Gas: Dangerous gasses such as methane can build up in ruins over the years and centuries. If exposed to open flames or other sources of heat they can ignite, causing deadly explosions. More insidiously, an odorless gas might cause the characters to suffocate if they get into an area that has too little oxygen and then can't get back out.

Trapping Barriers: Either by causing a collapse or accidentally activating a security device, the heroes may trap themselves inside a ruin! Suddenly thoroughly exploring the place and finding an exit becomes not a luxury or a treasure-hunt, but a desperate matter of survival....

STARVATION

The basic rules for starvation and dehydration on 6E2 142-43 suffice for most campaigns, but in some games, such as many Post-Apocalyptic settings, you may want some additional details.

A person engaged in reasonably strenuous activity (*i.e.,* adventuring, or simply trying to survive in the wilderness) ideally should consume a minimum of 3,000 calories per day in warm weather, and 4,000 per day in cold weather (and more is better). The accompanying Food Table lists the calories of some common foods. If a person consumes less than this, he gradually begins to feel the effects of starvation. Compare the amount of calories he gets per day to the desired maximum amount. Add them up day by day until he accumulates "one day" worth of lost nutrition. (If he gets more than the minimum amount one day, subtract that from his "deficit"; if he overeats, he can build up a "reserve" against lack of nutrition the next day, but not any later days.)

Once he accumulates three days' worth of no nutrition, he suffers 1d6 Normal Damage (no defense). He Recovers the lost STUN normally, and heals the lost BODY normally as well (but he won't get his monthly BODY Recovery until the starvation ends). He also loses STR, DEX, and CON at the same rate as BODY (*i.e.,* if you roll 1 BODY damage, he also loses 1 STR, 1 DEX, and 1 CON), which he Recovers just like lost BODY. Each additional day is another 1d6 Normal Damage (plus loss of STR, DEX, and CON). Once a character reaches 0 BODY from starvation, he loses an additional 1 BODY per Hour until he dies.

Example: *Badlands Bob is a character in a Low Post-Apocalyptic campaign, and he's running low on food. On Day 1, he only eats 2,000 calories, two-thirds of the minimum requirement, so he accumulates 8 hours (a third of a day) worth of starvation effect. The same thing happens for eight more days, so at the end of that time he's accumulated a total of 72 hours (3 days) of starvation and takes 1d6 Normal Damage. The GM rolls a 4, so he loses 4 STUN (which he Recovers normally), 1 BODY, 1 STR, 1 DEX, and 1 CON (all of which he Recovers as he does BODY, on a REC/month basis).*

Bob is rapidly running out of food. The fourth day he only eats 1,000 calories, so he accumulates 16 hours of starvation effect. But the next day he gets lucky and bags a deer with his crossbow. He feasts on venison that night, consuming 6,000 calories' worth. Since that's two days' worth of the minimum requirement, he feeds himself in full that day, wipes out the 16 hours of starvation effect, and builds up 8 hours of "reserve" pending lack of food the next day — he'll only need to consume 2,000 calories on the sixth day to get a full day's nutrition, but the "reserve" has no effect on the seventh or succeeding days.

Characters who aren't engaged in strenuous activity can get by on much less food — 1,000 calories a day. Adjust the rules accordingly if they begin to suffer from starvation.

FOOD TABLE

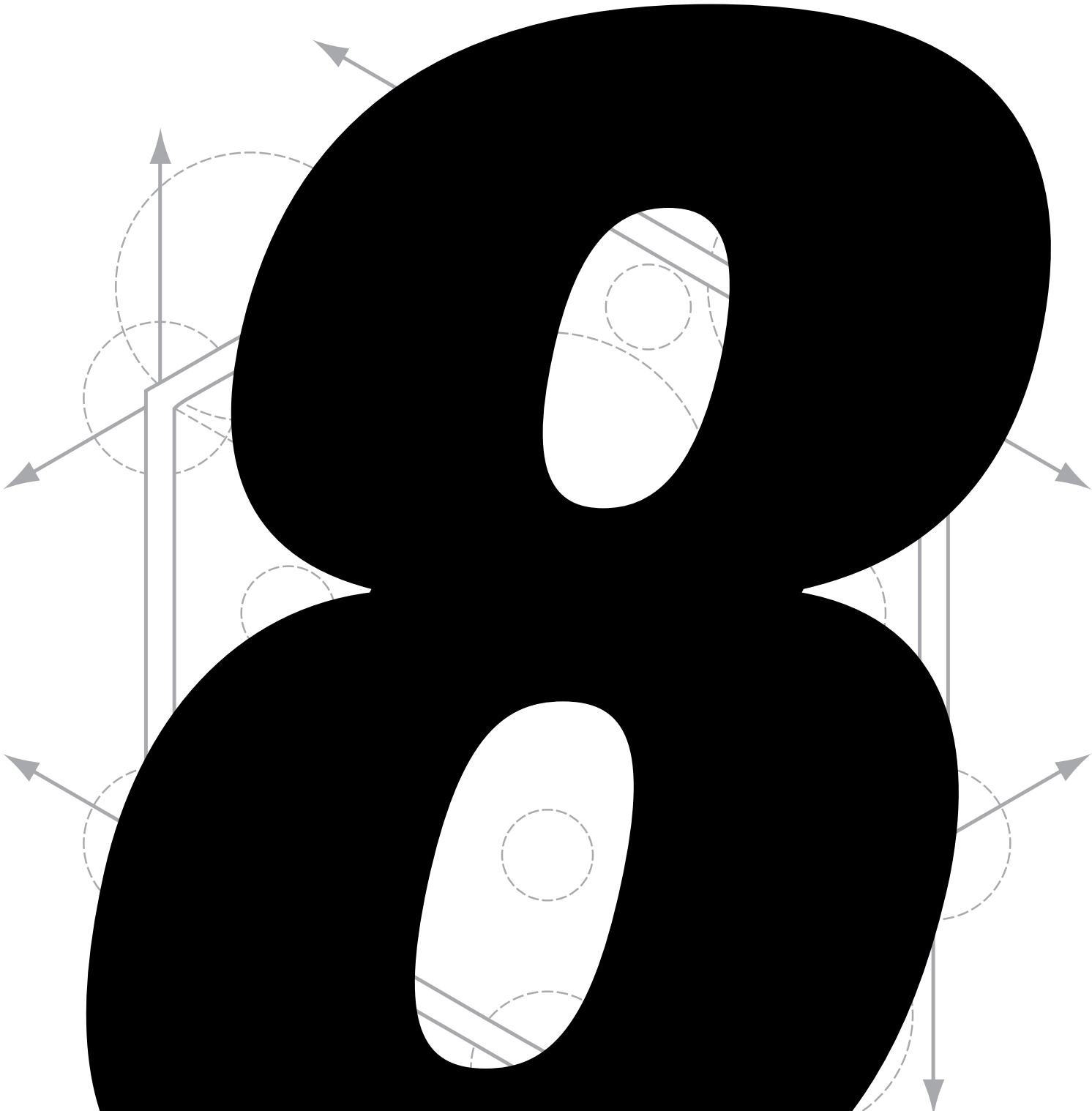
Food	Calories
Bacon (1 slice)	35-50
Beef (4 oz.)	200-365
Beer (12 oz.)	72-190
Candy, candy bar (1)	240-280
Candy, hard (1 oz.)	20-120
Canned food, chili	380-700
Canned food, fruit	100-400
Canned food, soup	240-340
Canned food, vegetables	180-380
Clams (4-5)	88
Dog food (4 oz. dry)	375
Dog food (4 oz. can)	125-150
Duck (4 oz.)	230
Egg, chicken	75-100
Egg, duck	177
Fish, freshwater (3-4 oz.)	100-200
Fish, saltwater (3-4 oz.)	200-250
Fruit (1)	60-110
Fruit juice (6 oz.)	70-100
Ham (4 oz.)	210-310
Insects (4 oz.)	120-613
Liquor (1-2.5 oz.)	80-170
Mutton or lamb (4 oz.)	220-400
Opossum (4 oz.)	245
Pork (4 oz.)	140-200
Rabbit (4 oz.)	124
Ration pack*	1,200
Sausage (4 oz.)	320-480
Soft drink/soda (12 oz.)	155
Trail mix (1 cup)	700
Tuna (1 can)	150
Vegetable (1)	70-120
Venison (4 oz.)	128

*: A US Army MRE (Meal Ready to Eat) or similar pre-packaged, preserved meal.

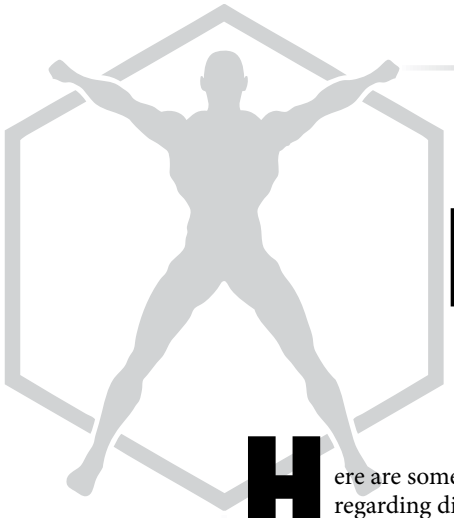
WATER

Water is even more important than food — a person can live days or weeks without enough food, but dies of dehydration in about two to three days. At a minimum an active individual needs 2 liters of water per day, but that rises to as much as 3.5 liters *per hour* in hot areas such as deserts and tropical regions. The GM should set a daily water consumption requirement figure for the PCs based on temperature and activity level.

The same rules apply for dehydration as for starvation (using the different figures for water consumption, of course), with some important exceptions. First, dehydration only does STUN and BODY damage. Second, after a character has had no water for *one day* (or has accumulated 24 hours' worth of dehydration effect), you roll the 1d6 Normal Damage. Thereafter, unless he drinks enough water to make up for the deficit, keep rolling 1d6 damage ever *6 Hours,* not every day.



CHAPTER EIGHT
EQUIPMENT



EQUIPMENT

Here are some additional or optional rules regarding different types of equipment.

COMPUTERS

As noted on 6E2 183, Computers don't come with standard Senses; they're typically "hooked into" the sensors of a Vehicle or Base and use them instead. If a Computer is bought as part of a Vehicle or Base, and is "hooked into" the Senses possessed by the Vehicle/Base via a Program (typically one phrased as "Monitor Sensor Systems, Report Anomalies" or the like), the Computer gets to use the Vehicle's/Base's Senses "for free," without having to also pay for those Senses as part of its own character sheet. In the case of a Vehicle/Base that only has Clairsentience, that provides the Computer with the basic Sense for all Sense Groups covered by the Clairsentience (such as Normal Sight for the Sight Group).

VEHICLES: OPTIONAL NON-MAPPED VEHICLE COMBAT

It is not always best to play out vehicular combat on a map — Vehicles move extremely quickly, and are often "off the map" in only a matter of Segments. Similarly, it can be extremely tedious to manage a running chase between two Vehicles with a map.

A GM who wants to simplify combat can keep track of the distance between the two Vehicles. To do this, he needs to know the *MAX,* or the total distance a Vehicle could cover in a Turn.

MAX = Vehicle's SPD x Maximum Noncombat Movement

A driver can change the distance between the Vehicles or lose a pursuer by succeeding in a Combat Driving Versus Combat Driving contest. (Substitute "pilot," "Combat Piloting," and other appropriate terminology throughout this section as needed, or vice-versa, based on the type of vehicles involved.) Two examples of non-mapped Vehicle combat, Dogfight Combat and Intercept Combat (for use with Vehicle combats which take place in three dimensions, such as aerial, space, or submarine combat), follow.

Dogfight Combat

Whenever Vehicles are at close range, the GM can use Dogfight Combat. Vehicles can enter a Dogfight whenever the range between them is less than their combined MAX.

A "dogfight" is a pilot's term to describe close-in air combat where the planes circle like fighting dogs trying to snap at each other's backs. Dogfight Combat simplifies all of the combat maneuvering of two circling opponents down to several die rolls. Vehicles fighting at long range while moving at Noncombat Movement speeds use the rules for Intercept Combat (see below).

You conduct dogfights in full Turns; each dogfight Turn equals one full Turn on the ground. All you need to keep track of in a dogfight is the number of Turns needed to Escape (discussed later), each Vehicle's current velocity, and, most important, the relative positions of the Vehicles. There are four different positions in a dogfight: neutral, head on, side on, and tail chase.

When a dogfight starts, the GM can set the initial position of all the Vehicles, or determine it randomly. During a dogfight, each player rolls his Combat Piloting roll. If no pilot's roll succeeds, the Vehicles are in a neutral position and the next Turn begins.

If at least one pilot succeeds with his roll, the pilot who succeeded by the greater amount becomes the attacker. Subtract the amount the other pilot made his roll by (this can be negative) from the amount the attacker made his roll by. This number gives you the relative positions of the aircraft from the Dogfight Table. Each pilot's roll is modified by several factors, listed on the Dogfighting Piloting Roll Modifiers table.

The Dogfight Table assumes both Vehicles can only fire in their front 180 degree arc. The GM should make special allowances for Vehicles that can attack to the rear or side. Also, in a head-on position, the attacker may elect to fire, in which case the defender gets to fire back at him that Turn. Alternately, the attacker may elect to evade, in which case neither pilot gets to fire that Turn.

The most important part of a dogfight is shooting the other Vehicle down. Use the normal combat rules, but determine range by the Vehicles' velocities, and apply special Attack Roll modifiers (see the Gunnery Modifiers Table) to represent the high speed fleeting shots which are available in a dogfight.

Each position in Dogfight Combat has an OCV modifier and a range between targets figured as a multiple of the attacking Vehicle's current velocity. To find the range, multiply the attacking Vehicle's current velocity by the number listed in the Range column of the Gunnery Modifiers Table, relative to the position. The Gunnery Modifiers Table also lists any special OCV modifiers for either side.

LEAVING A DOGFIGHT

There are several ways out of a Dogfight. If both pilots break off, the Dogfight ends. If one pilot wishes to break off and the other doesn't, it's more complicated. The pilot who wants to leave must execute one or more Escapes.

Cover of some kind can normally be found, even in an aerial battle. Clouds, the sun, large trees, or friendly fire can all help a pilot lose his pursuer. In space, ducking into the nearest meteor swarm or asteroid field is always a good move; in a submarine battle, captains may be able to use thermal differentials and other underwater phenomena to hide from an enemy's sonar.

Before the Dogfight begins, the GM should determine how many Turns of Escape are necessary for a Vehicle to leave the Dogfight. The more cluttered the battlefield, the fewer Escapes needed. If the GM doesn't want to decide, he can roll 1d6 and use that as the number of Escapes necessary to break off combat.

A pilot executes an Escape by declaring "Escape" before the Turn begins. Both pilots roll normally. If the Escaping pilot wins the roll or has a tie, he has successfully made one Escape. If the other pilot wins, combat proceeds normally. If the Escaping pilot has a higher current velocity, he gets credit for an Escape even if he lost the roll. Losing doesn't force the pilot to take a minus on his Combat Piloting roll next Turn, and has no effect on the fire directed at him.

After the pilot executes his required number of Escapes, the Dogfight ends. Depending on the situation, the fight may move on to an Intercept Combat. The number of Escapes a pilot has executed is cumulative; that is, a pilot may execute an Escape early in the fight, and then execute another Escape later in the fight and have credit for two Escapes.

DOGFIGHTING PILOTING ROLL MODIFIERS

Bonus	Condition
+1	To attacker's roll, if the number of attackers outnumber the defenders.
+1	To attacker's roll, for every 2x the attackers outnumber the defenders.
+1	If your Vehicle's current velocity is faster than your opponent's Vehicle's current velocity.
+1	For every 2x your Vehicle's current speed is faster than your opponent's Vehicle's current speed.
+1	If you were the attacker in a side on position last Turn
+2	If you were the attacker in a tail chase last Turn
+1	If you Surprise your opponent
-2	If you attempt to Escape
-2	If the other pilot has successfully executed an Escape

DOGFIGHT TABLE

Attacker - Defender	Relative Position
+0 to +1	Both Vehicles neutral; neither may fire.
+2 to +3	Both Vehicles are head on; both may fire once.
+4 to +5	Attacker faces Defender's side; both may fire once.
+6 or +7	Attacker is tail chasing the Defender. Attacker may fire once.
+8 or more	Attacker is tail chasing the Defender. Attacker may fire as many times as he has SPD.

GUNNERY MODIFIERS TABLE

Relative Position	Attacker's OCV Modifier	Defender's OCV Modifier	Range
Head on	-2	-4	x1
Side on	-4	-4	x2
Tail chase +6, +7	-4*	-4*	x2
Tail chase +8	-4*	-4*	x1
Tail chase +9 or more	-0	-4*	x½

*Guns mounted to the rear, or with 360 degree field of fire, may fire at an attacker in a tail chase.

Intercept Combat

Use Intercept Combat only when two Vehicles are at long range. Intercept Combat is executed in full Turns. You must keep track of range, target position, and target velocity in Intercept Combat.

There are two conditions where Vehicles may be in Intercept Combat. First, two Vehicles flying at each other but still at a range greater than their combined MAX can engage in Intercept Combat. Second, two Vehicles may engage in Intercept Combat after Escaping from a Dogfight; in that case, the range starts at the Vehicles' combined velocities.

Intercept Combat starts by defining the range between targets. The quality of the sensory equipment (radar, sonar, long-range sensors, and so forth) carried on the Vehicles determines the range at which Intercept Combat begins (or ends). So long as the Vehicles could theoretically perceive each other they are within range, and if one wishes to fight, they are in Intercept Combat.

Next the GM must define the Vehicles' *Intercept Velocities*. Positive Intercept Velocities represent moving towards the enemy, negative Intercept Velocities represent moving away from the enemy. The Vehicle's Intercept Velocity is equal to plus or minus its MAX (see below).

To conduct Intercept Combat, follow these steps:

1. Declare maneuver (Close, Jink, or Disengage). *Close* means to fly towards the enemy, *Jink* means to circle or maneuver to deny the enemy a shot, and *Disengage* means to fly away from the enemy. The Intercept Velocity of a closing Vehicle is equal to its MAX, the Intercept Velocity of a jinking Vehicle is 0, and the Intercept Velocity of a disengaging Vehicle is minus its MAX.

2. Determine the facing of the Vehicles. Each Vehicle's maneuver determines which face he shows to the enemy. Closing Vehicles show their front to the enemy. Disengaging Vehicles show their rear to the enemy. Jinking Vehicles roll on the Jinking Facing Table to determine their facing.

3. Determine Range between enemy Vehicles. Subtract each Vehicle's Intercept Velocity from the Range. Remember that subtracting a negative number is equal to adding. If the range becomes negative the Vehicles have passed. Multiply the range by -1 to make it positive again.

4. Make Attack Rolls. Each player can fire any or all of his weapons once per Turn (a player must make a separate Attack Roll for each weapon unless his character uses a Multiple Attack). Be sure to check the maximum range of a weapon to see if the enemy is in range.

5. Repeat steps 1-4 until both Vehicles break off, or the Vehicles are out of sensory range.

JINKING FACING TABLE

Roll 1d6	Facing
1-2	Front
3-4	Side
5-6	Rear

A Vehicle may only attack if it is showing its front or side to the enemy. If the Vehicle is showing its side it takes a -4 OCV because of the difficulty of the shot. This assumes the Vehicle can only fire in the front 180 degrees. The GM must make allowances for Vehicles that can fire to the rear.

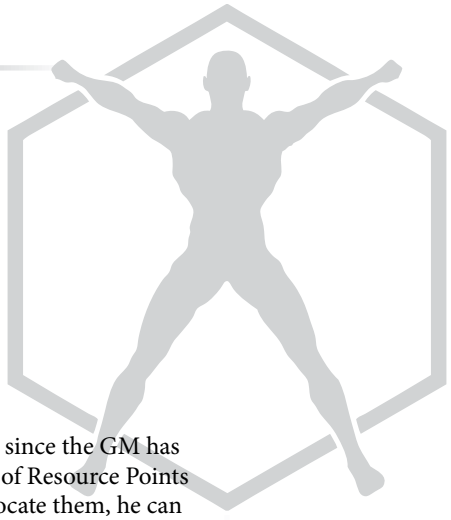
Unless the Vehicles have very special weapons with long ranges the GM may normally dispense with Intercept Combat and go right into Dogfighting. If a Vehicle is specially equipped for long range combat it can use Intercept Combat to take advantage of its weapons.

WEAPONS: CHARACTERISTIC MINIMUMS

6E2 199 discusses the STR Minimum rule for weapons, which comes into play frequently in Heroic campaigns that involve a lot of weapons use, such as many Fantasy Hero and Dark Champions games. If appropriate to the campaign, the GM can expand that concept to *Characteristic Minimum* and use it for other types of abilities.

A Characteristic Minimum is suitable for any type of power characters get "for free" (*i.e.,* without having to spend Character Points on them) where the ability to use a power is governed by a Characteristic as well as some sort of Skill. An example would be spells in some Fantasy Hero campaigns. The GM could set up the magic system so that characters don't pay Character Points for spells; they get them "for free" after buying certain Skills and/or Perks. However, the more powerful the spell, the more mentally acute a character has to be to learn and cast it properly — spells have an *INT Minimum*. If the character doesn't meet the INT Minimum for a spell, he suffers Magic roll penalties, OCV penalties, or whatever other drawback the GM builds into the system. Similarly, in a "Psionic Wars" campaign, mental powers might be free, but require an EGO Minimum.

RESOURCE POINTS



Characters in the movies, novels, television shows, and comic books that influence and inspire *HERO System* campaigns often go through weapons, equipment, and other resources at a rapid pace. They acquire, use, and lose weapons, cars, and other gear within the space of a single story. They come into large amounts of money, then spend or lose it just as quickly. During the course of a mission, they might call on many different Contacts and friends, only to have those characters die during that adventure... or, if they live, never come into the character's story again.

This sort of give-and-take is difficult to simulate in gaming, where characters are used to acquiring resources and getting to use them whenever they want thereafter. And in the *HERO System,* where characters typically pay Character Points for their resources, it can be even trickier, since characters rightly expect to receive full and constant value for what they buy.

The rules for equipment in Heroic genres — that characters don't pay Character Points for equipment, they buy it or otherwise acquire it "for free" in the game — are designed in part to simulate this effect. However, they often come with their own difficulties. When characters can have more or less whatever they want "for free," it becomes problematic for many GMs to deny them anything — particularly when they buy the Skills, Perks, and Talents needed to build or acquire the gear on their own. Furthermore, the equipment rules don't cover other resources that Heroic characters often use, such as Contacts. A character still has to pay Character Points for such things, which often becomes a frustrating exercise in trying to predict what sort of friends he'll need to call on throughout his adventuring career.

The *Resource Point* rules are intended to minimize these problems by creating a distinct pool of "points" a character can use to "buy" weapons, equipment, Vehicles, Bases, Contacts, and other more or less "fungible" resources that can easily change (*i.e.,* be lost, used up, or used temporarily) during the course of an adventure or campaign. That way they don't have to spend precious Character Points on a resource they may rarely (if ever) use. At the same time, since the GM has some control over the amount of Resource Points the PCs have and how they allocate them, he can prevent them from arming themselves to the teeth and driving around in tanks just because they don't have to pay Character Points for their gear.

The Resource Points rules are *strictly optional.* If the GM doesn't want to use them, he doesn't have to; if he wants to change them or re-arrange them, he's welcome to. The purpose of Resource Points is to help the GM manage his campaign better while maintaining the players' freedom to create and play their characters in ways that simulate the campaign's genre better — so if they don't do that for you, rework them until they do, or don't use them.

The examples, Perks, and other information in this section primarily refer to modern-day games, which is where Resource Points rules are likely to see the most use. But that's not a restriction; they also work well in historical games, Fantasy games, and the like. Just substitute "Wand of Fireballs" for "machine gun" and you're good to go.

RESOURCE POINTS BASICS

A character's Resource Points are divided into four categories:

- Equipment Points
- Vehicle/Base Points
- Follower/Contact Points
- Miscellaneous Points

The text below describes each category and what characters can buy with the Resource Points assigned to it. Characters may not substitute points in one category for points in another; for example, a character cannot choose to spend some (or all) of his Follower/Contact Points on equipment — he has to spend them on Contacts or Followers, or nothing at all. Characters may not sell back unused Resource Points in any category.

STARTING RESOURCE POINTS

The GM must decide how many Resource Points he wants characters to start the campaign with. The more points he assigns to each category, the more resources the character will have to choose from in that category, and the more he can have "active" at one time.

Typically characters have more Equipment Points than any other type of Resource Points — that's the category in which they're most likely to need to buy expensive things and to carry a lot of that resource at once. Miscellaneous Points tend to be the rarest, since they represent the least common things characters use (and in some ways the things most likely to unbalance the game).

In a typical modern-day Heroic campaign, characters are built with the following starting Resource Points:

- 60 Equipment Points
- 10 Vehicle/Base Points
- 5 Follower/Contact Points
- 0 Miscellaneous Points

PURCHASING MORE RESOURCE POINTS

The campaign default amount of Resource Points may not be enough for some characters, such as a heavily-armed vigilante, a scientist who wants to have lots of gadgets, or an expert driver who needs lots of different cars. Characters may purchase more Equipment, Vehicle/Base, and Follower/Contact Points with Character Points, at the cost indicated in the accompanying table. Characters may not purchase Miscellaneous Points; they can only get these from the GM.

Characters may not "trade in" Resource Points for Character Points. They may choose not to use their Resource Points, or any particular category of Resource Points, but they get nothing in exchange. Similarly, they may choose to use only some of the points in a Resource Points category, but that just means the points go to waste (temporarily or permanently).

As the campaign progresses, characters can get more Resource Points in either or both of two ways. First, they can spend Experience Points to buy them, as described above. Second, the GM can give out Resource Points at the end of an adventure, in place of or in addition to Experience Points. For example, after a particularly successful adventure, the GM might grant each character 3 Experience Points, 2 Equipment Points, and 1 Vehicle/Base Point. The amount and type of points given out are up to the GM, and may vary from character to character depending upon each character's performance during the scenario.

The amount of Resource Points awarded does *not* depend on the amount of equipment, Contacts, and other resources the characters acquire during the scenario. Characters may walk away from a game with a wagon full of swords, axes, maces, shields, and armor, but still get only 2 Equipment Points, or they may lose a crate of guns but be awarded 4 Equipment Points for their clever actions.

Characters generally cannot lose Resource Points. The only exception to this rule is if a character spends Resource Points on unique items (see below).

PURCHASING THINGS WITH RESOURCE POINTS

Characters use Resource Points to "buy" equipment, Vehicles, Contacts, and the like for themselves during an adventure. The cost of something in Resource Points equals its cost in Real Points. For example, if a character wants a machine gun (90 Active Points, 36 Real Points), that requires 36 of his Equipment Points.

Where appropriate, characters may spend Resource Points using the 5-point Doubling Rule (6E2 181). For example, if the character described above wanted two machine guns, he'd allocate 36 Equipment Points for the first machine gun, then 5 more Equipment Points for the second using the "5 points doubling" rule, for a total of 41 Equipment Points. The GM may forbid this if he considers it unbalancing or troublesome.

KIT AND ARMORY

When a character uses Resource Points (particularly Equipment Points), he must distinguish between his *Kit* (the equipment, Followers, Vehicles, and so on that he currently carries, uses, or "has active") and his *Armory* (the total amount of equipment, Followers, Vehicles, and so on that he has to choose from). Characters usually have more resources than they can carry or use at one time, so they have to choose which ones they want to have available to them during a particular adventure (or part of an adventure). A character's Armory is usually much larger than his Kit, since he acquires resources he can use during the course of the campaign.

A character's Kit equals the total amount of Resource Points he has in any given category. For example, if a character has 60 Equipment Points, then his Kit equals 60 points — he can have up to 60 Real Points' worth of weapons and equipment with him (or easily accessible) at any one time. A character keeps his Kit with him during an adventure (or has it nearby).

RESOURCE POINT COSTS

Type Of Resource Point	Cost
Equipment Points	1 Character Point for 5 Equipment Points
Vehicle/Base Points	1 Character Point for 2 Vehicle/Base Points
Follower/Contact Points	1 Character Point for 2 Follower/Contact Points
Miscellaneous Points	Not allowed

A character's Armory is the overall amount of a resource the character has to choose from when determining what he takes in his Kit. It's not necessarily defined by any set point total; depending on what he does during the campaign, a character could acquire an Armory with literally thousands of Resource Points' worth of resources. A character usually stores his Armory in a Base or other safe location.

Example: *Crimesmasher's Equipment Points Armory, which he keeps in his secret headquarters, consists of the following: 100 throwing blades (10 Real Points apiece), three grappling hooks (10 Real Points apiece), five billy clubs (5 Real Points apiece), ten throwing stars (10 Real Points apiece), a parabolic microphone (6 Real Points), a survival knife (13 Real Points), 16 assorted handguns (ranging from 8-28 Real Points apiece), two assault rifles (35 Real Points apiece), several suits of body armor (ranging from 3 to 15 Real Points each), and various other miscellanous pieces of equipment. He only has 60 Equipment Points to spend, giving him a 60-point Kit. That means he can't take his entire Armory with him when he goes on patrol — he has to choose 60 Real Points' worth of equipment to carry. He chooses the parabolic mike (6 Real Points), 16 throwing blades (30 Real Points), the survival knife (13 Real Points), and a handgun (11 Real Points).*

A character's Kit may vary from adventure to adventure. He might even change it during the course of an adventure, if he has the chance to visit his Armory and switch his Resource Points.

At the beginning of the campaign, each character has an Armory in each Resource Points category equal to 1.5 times the number of Resource Points in that category. Characters should determine the contents of their Armory (subject to GM permission) before the game begins. After the campaign begins, there's no limit on the size of a character's Armory, nor do characters have to maintain a Kit:Armory ratio of 1:1.5. After the game begins, a character can put any equipment, Vehicles, Bases, Followers, or Contacts he acquires into the Armory of the appropriate category of Resource Points, and loses things from his various Armories as they're destroyed, used up, killed, or stolen. Thus, a character's Armories change during the course of the campaign as he acquires new resources (weapons looted from his defeated enemies, Contacts among new people he meets, Vehicles he builds, and the like) or loses them (his enemies capture him and take away some of his guns, an enemy blows up his armored Cadillac, the Dark Lord's minions murder one of his Contacts, and so forth).

The distinction between Kit and Armory becomes crucial when characters lose items or use up expendable items. If a character puts an assault rifle in his Kit at the start of an adventure, and during the course of the adventure he loses the rifle, he does *not* lose any Equipment Points, nor are the points in his Kit reduced. However, his Armory *has* suffered a loss — he no longer has that assault rifle to choose from when allocating points for his Kit. (His Kit for the current adventure now has a number of "unspent" points that were formerly used to buy the assault rifle, and he can replace the assault rifle with something else obtained from his Armory.) If the character wants to have an assault rifle available, he has to acquire another one (by looting bodies, theft, purchase, building it himself, or however else the GM allows him to get one). A character's need or desire to replace the lost contents of his Armory can provide a lot of opportunities for roleplaying, and may suggest many adventures to the GM.

Example: *Crimesmasher is a character in a "costumed vigilantes" campaign. Characters in this campaign start with 60 Equipment Points. Before the game begins, Crimesmasher may define 90 points' worth of equipment (his Armory) that he has to choose from when filling his Kit. He chooses a handgun (20 Real Points), an assault rifle (35 Real Points), a suit of body armor (12 Real Points), a survival knife (13 Real Points), a parabolic microphone (6 Real Points), Advanced Lockpicking Tools (2 Real Points), and an Advanced Criminalistics Kit (2 Real Points). His starting Armory is now filled.*

During the course of Crimesmasher's early adventures, he loses his assault rifle and his lockpicking tools when one of his enemies takes them away from him. But he also acquires several pistols and shotguns (taken from street thugs he defeated), a couple sets of handcuffs, two more suits of body armor, an arsenal of throwing blades and knives confiscated from his enemy Razor, a small fire extinguisher, and a waffle iron. His Armory is now much larger than it was before, though he can still only choose 60 Real Points' worth of equipment for his Kit for any particular adventure. He can't choose the assault rifle or the lockpicking tools anymore (since he lost them), but he has a lot more options now than he did before.

RESTRICTIONS ON RESOURCE POINTS

The GM must decide what restrictions, if any, he wants to place on the use of Resource Points. For example, he might want to establish a campaign ground rule that a character cannot have a weapon with more Active Points than two times (2x) his number of Equipment Points, or a Vehicle built on more than twice the starting Total Points for characters in the campaign.

KIT SIZE RESTRICTIONS

Another possible restriction is to limit the size of a character's Kit based on the type of adventure being run. For instance, Military Action characters typically can't take as much equipment when they're attending a formal ball as they can when they're assaulting a guerrilla camp in the jungle. Depending on the circumstances, the GM can decrease (or increase) the size of the characters' Kit temporarily.

Example: *Steve decides to establish three categories of "Kit size" for his game. The basic size is Standard Gunwear, which is the amount of equipment the characters typically carry on an adventure, when patrolling the streets, and so forth. It equals 1 x Kit. For situations where they're undercover or can't carry a lot of gear, they have to use Casual Gunwear — 0.5 x Kit, and the Kit cannot include any item with a PER Mod greater than +2 unless he gives special permission. For missions where the PCs know they're heading into combat (or other dangerous situations), they can have Formal Gunwear: 1.25 x Kit.*

RESOURCE POINT POOLS

There are four categories of Resource Points: Equipment Points; Vehicle/Base Points; Follower/Contact Points; and Miscellaneous Points.

EQUIPMENT POINTS

The most common, and probably most important, category of Resource Points is Equipment Points, which characters use to purchase weapons, body armor, gadgets, and other devices. A character usually has more points in his Equipment Point pool than in any other category of Resource Points.

When building equipment for their Equipment Points pools, characters can apply appropriate Limitations (including *Focus,* obviously) to reduce the Real Point cost of the items.

TYPES OF EQUIPMENT AVAILABLE

The types of equipment normally available to characters is limited, based on their experience and their adventures. At base level, characters may only allocate Equipment Points for *Standard* equipment, meaning any items an ordinary, law-abiding citizen could acquire without too much difficulty. This category is still fairly broad — ordinary citizens can obtain powerful hunting rifles, some types of body armor, high-caliber handguns, simple espionage devices, early-generation nightvision equipment, and a lot of other gear — but it prevents a character from purchasing law enforcement or military equipment such as submachine guns, grenades, and advanced body armors.

If a character wants to be able to allocate Equipment Points to better types of equipment, he must buy the Perk *Improved Equipment Availability.* Here's what's available for different Perk values in a modern-day campaign:

Street-Level Equipment (3 points): This Perk gives the character access to various types of law enforcement equipment and military small arms, such as submachine guns and assault rifles, and to other low-level military equipment, but not to heavy equipment such as machine guns or anti-tank rockets.

Military Equipment (5 points): This Perk gives the character some access to heavy weapons, such as machine guns and some types of grenades, and all types of body armor.

IMPROVED EQUIPMENT AVAILABILITY CHART

Category of Perk	Weapons	Vehicles	Body Armor	Miscellaneous
Standard (free)	Those available to civilians — handguns, hunting rifles and shotguns	Those available to civilians — stock automobiles, motorcycles, helicopters, and the like	Up to PD/ED 6	Anything easily available to civilians without a license or permit
Street Level (3 points)	Military small arms — submachine guns, assault rifles, and the like	Minor military vehicles (such as Humvees); highly customized civilian vehicles (e.g., Indy cars, armored cars), armored cars. Typically limited to 7 PD/ED.	Up to PD/ED 11	Anything requiring a license or permit to purchase (e.g., some surveillance equipment and lockpicking equipment)
Military (5 points)	Military heavy weapons — machine guns, grenades, and the like	Any vehicle with built-in weapons or gadgetry — James Bond's cars, Humvees with guns, vigilante cycles. Typically limited to 12 PD/ED.	Any type of body armor	Generation 3 nightvision equipment
Advanced Military (10 points)	All military weapons — anti-tank rockets, missiles, and the like	Full military vehicles — tanks, Apache helicopters, nuclear submarines, space shuttles, and the like		

Advanced Military Equipment (10 points): This Perk gives the character access to the full range of military equipment, including anti-tank rockets, flamethrowers, any type of grenade, and so forth.

The accompanying Improved Equipment Availability Chart offers some guidelines regarding what characters can purchase when they buy the Perk. But of course, just having the Perk doesn't guarantee a character access to such equipment — paying for Advanced Military Equipment doesn't mean the character can walk right into the local U.S. Army armory and take anything he wants. Characters still have to acquire the weapons and gear for their Equipment Point pools in the usual ways. The Perk is just a game rule that restricts access for game balance purposes.

Regardless of what level of the Perk a character has (if any), he can always have in his Armory and allocate Equipment Points to an item he acquires during game play (such as a machine gun he obtains from a defeated enemy). The Equipment Point rules do not prevent a character from using equipment acquired in a game session during that game session only, even if he can't fit it into his Kit. However, in later game sessions, if he wants to use such "found equipment," he has to include it in his Kit.

Usually characters obtain equipment for their Armories in the usual ways: purchase it; steal it; take it; from defeated enemies; make it using their own Skills; hire a skilled craftsman to make it; and so forth. To prevent game balance problems, the GM may want to forbid characters to make their own weapons and gear unless they have not only the appropriate general Skills (such as Weaponsmith, and perhaps Inventor), but one or more appropriate PSs or other Skills related to the specific item in question.

UNIQUE ITEMS

Generally, a character should not include unique items, such as a one-of-a-kind gun he designed himself, in his Equipment Point Armory or Kit — he should spend Character Points on such items. Similarly, a character may not want buy his "signature" items (such as a distinctive type of throwing blade or other weapon) through his Resource Points; he should spend Character Points on those items, so he can't permanently lose them. If a character spends Resource Points on a unique item of some sort, and loses or uses up that item, he loses the Resource Points used to buy that item *permanently.* The GM defines exactly what qualifies as a "unique" item for purposes of this rule. For example, if a character wants to use a lot of big, fancy guns that he built himself and that look really impressive, but which are no more effective (in game terms) than ordinary firearms, the guns probably aren't "unique." But if they do extra damage or have other features not commonly available on guns, the GM might consider them "unique."

VEHICLE/BASE POINTS

Vehicle/Base Points are the second most common type of Resource Points. Because many Vehicles and Bases are more or less "unique," the rules about losing Resource Points spent on unique equipment generally don't apply to Vehicle/Base Points. However, at the GM's option, a character who builds a *truly* unique Vehicle or Base still may lose all or some of the points used to buy it if it is destroyed.

Characters' ability to purchase military vehicles and/or armed and armored vehicles is restricted by the *Improved Equipment Availability* Perk.

FOLLOWER/CONTACT POINTS

Follower/Contact Points are relatively rare. Most characters will never have a large number of them.

Many adventure fiction characters seem to have dozens of Contacts who appear for one adventure here or there, functioning as a sort of "plot device" for that particular scenario. That Contact may never show up again, but for that one adventure, he's vital. Follower/Contact Points allow GMs and characters to create this sort of Contact without having to devote Character Points to him permanently. They also allow a character to claim to have a large number of Followers without devoting a substantial portion of his Character Points to purchasing them.

A character's Follower/Contact Armory consists of all the Followers and Contacts he knows and/or controls (in a general sense). His Follower/Contact Kit is the Followers or Contacts he wishes to have access to that adventure. A Follower or Contact in the Armory but not the Kit may not be used or encountered in the current scenario — he is, for whatever reason, unavailable.

Contacts in a character's Kit are not automatically available to him — he must still make his Contact Roll to determine whether he can locate the Contact and/or whether the Contact can be of any help to him. If a particular Contact is integral to a particular scenario, the GM may require a character to take that Contact or Follower as part of his Kit for that scenario.

Because each Follower or Contact is, in essence, "unique," the rule about losing Equipment Points devoted to unique items doesn't apply to Follower/Contact Points. If the character loses a Follower or Contact because of his own stupidity or incompetence, the GM may rule that he loses the Follower/Contact Points devoted to that person permanently. Otherwise, the GM should let the character replace a lost Follower or Contact, though this may take a long time and involve a lot of roleplaying.

Characters may not buy the *Well-Connected* Skill Enhancer through their Follower/Contact Points. However, if they buy it with their Character Points, it reduces the cost of all Contacts purchased with Resource Points in the usual fashion.

MISCELLANEOUS POINTS

Miscellaneous Points are the rarest form of Resource Points; some characters may never possess any. Characters allocate them to acquire access to Money, certain Fringe Benefits, and other unusual Perks and abilities. The GM determines whether a particular Perk or ability qualifies for Miscellaneous Points.

The GM should be especially careful about how characters define their Kit and Armory of Miscellaneous Points. It's not common for characters to suddenly acquire or lose Fringe Benefits, for example; instead, characters should generally define their Kit in one particular way, and leave it that way for long periods of time. In some cases (for example, characters who can disguise themselves and forge credential and licenses), quicker switches may be acceptable.

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