GURPS® Fourth Edition

POWER-UPS™ 9

ALTERNATE ATTRIBUTES™

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Rules and statistics in this book are specifically for the ***GURPS Basic Set,*** *Fourth Edition.* Page references that begin with B refer to that book, not this one.

Introduction

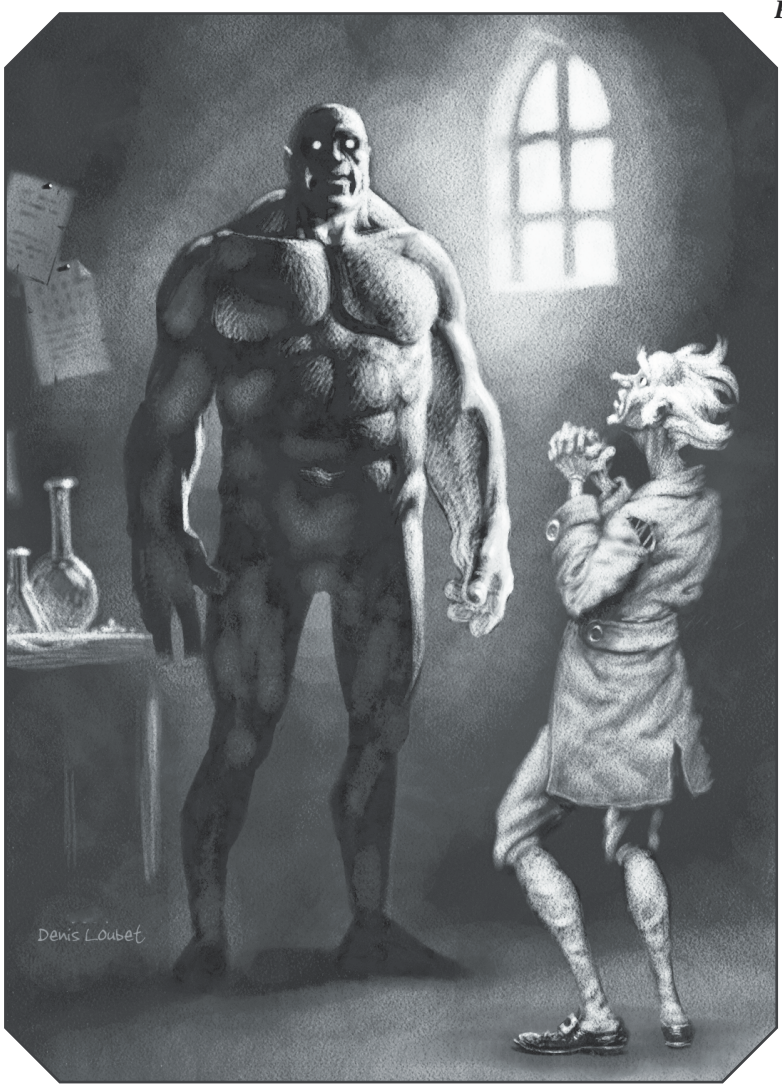
As the introduction to the ***GURPS Basic Set: Characters*** boasts, ***GURPS*** is *one* set of rules comprehensive enough to let you use *any* background and have the resulting campaigns be compatible. That's vital for cross-world or cross-genre gaming. But even if you aren't doing those things, a generic, universal system offers savings in terms of the money needed to buy new games and the time required to learn them.

All of that assumes you intend to explore *many* settings and genres, though, whether in one or several campaigns. Some gamers stick to a few backgrounds or genres – maybe just one. For them, it's more important that the game system be a good fit to the milieu they've chosen and the stories they plan to tell.

Sometimes, ***GURPS*** delivers here, too. Although its core rules focus on things likely to be of importance in *most* campaigns – and omit many matters essential only to *some* campaigns – it offers an extensive library of add-ons to choose from. Rules for a setting or genre's definitive abilities, tasks, and situations might be in a supplement rather than in the ***Basic Set,*** but then again, even an RPG designed around a specific world might span several books.

Other times, ***GURPS*** falls short because the fundamental building blocks of the rules don't quite work. Maybe rolling under a target number on 3d6 doesn't deliver the desired experience as well as, say, rolling high, counting successes, using funky dice, or drawing cards would. Perhaps *randomness itself* is the problem, and bidding- or narrative-based resolution would be better. Fine-grained character points might not fit as well as chunky "levels." Even the GM-player division could be undesirable!

It's *hard* to solve such problems, but many puzzles fall between a glib "Get ***GURPS Asparagus*** for all your vegetable-centered needs!" and a rueful "***GURPS*** can't hack axe-throwing-based task resolution." Solving *these* involves buying a supplement and doing some work. For instance, ***GURPS Power-Ups 5: Impulse Buys*** introduces special points that players can earn, spend, bid, and wager to alter the narrative, and suggests replacing perpetually increasing PC power with story-based "horizontal development" – but these concepts usually need to be built into the campaign.



GURPS Power-Ups 9: Alternate Attributes offers another such tool. It recognizes that a campaign is a playground for characters, that characters are built from traits, and that the most fundamental traits in ***GURPS*** are *attributes*. It takes the stance that if you can tailor lists of advantages, disadvantages, skills, etc. to a campaign – declaring some mandatory, placing limits or conditions on others, prohibiting a few, and inventing new ones – why not do the same with attributes?

Alternate Attributes rethinks ***GURPS*** character creation at a basic level. Its methods entail considerable work. But it aims to make that effort quicker and cheaper than buying and learning an entirely new game!

About the Author

Sean Punch set out to become a particle physicist in 1985 and ended up as ***GURPS*** Line Editor in 1995. In that capacity, he has written, edited, or contributed to some 150 ***GURPS*** releases, revised the game into its fourth edition (2004), and been a regular contributor to *Pyramid* magazine. From 2008, he has served as the lead creator of the ***GURPS Dungeon Fantasy*** series, which led to his design of the ***Dungeon Fantasy Roleplaying Game,*** released in 2017. Sean has been a gamer since 1979, but devotes most of his spare time to Argentine tango (and occasionally tending bar). He lives in Montréal, Québec with *son amour,* Geneviève.

Chapter One
Playing with Points

Sometimes, the standard rules for ST, DX, IQ, HT, and the secondary characteristics figured from those attributes don't suit a campaign not because they offer a bad way to divvy up basic abilities, but because they make those scores too expensive or too cheap – in either absolute or relative terms – for the genre, setting, or realism level, or perhaps the GM's tastes. Fortunately, that's easy to fix: Change the price of the offending traits! The GM can do so by fiat, but here's some systematic advice.

Price is what you pay.
Value is what you get.
– Warren Buffett

Cheaper Basic Attributes

The GM might reduce the point cost of ST or HT to less than 10 points/level, or that of DX or IQ to less than 20 points/level. Most gamers like the math best if 10 becomes 5, or if 20 becomes 15, 10, or even 5, but that's "just" aesthetics. (Still, aesthetics can be an important motivation – see *Aesthetic Pricing,* p. 15.)

But why do this at all?

Cheaper ST

Strength provides muscle-powered damage, carrying capacity (Basic Lift), and Hit Points. In high-tech games, especially, all of those things may be less important.

At TL5, firearms start to outperform muscles. This becomes particularly striking at TL7+: While high ST *does* let one use bigger guns, a ST 8-9 shooter can manage most assault rifles (5d damage), an average ST 10 human can handle heavier rifles (6d to 8d damage), and ST 11+ mostly just means reloading less often because it makes machine guns practical as personal weapons. At TL9+, deadly ultra-tech weapons, notably *beam* weapons, require very little ST indeed. And at all of these TLs, bipods, tripods, vehicle mounts, etc. can further reduce ST's relevance.

Also at those TLs, body armor weighs so little per point of DR that near-immunity to low damage – such as that of muscle-powered weapons – isn't encumbering. Indeed, *all* equipment tends to grow lighter as technology advances. The renders carrying capacity progressively less important as TL increases, especially in backgrounds where PCs have powered exoskeletons, battlesuits, or good old cars to help lug gear around.

As for Hit Points, high-TL weapons inflict *so much* damage that personal HP scores smaller than those of large vehicles are irrelevant. Staying upright and alive is mostly a function of HT rolls.

Thus, in high-TL campaigns with plentiful gear, the GM may want to reduce the cost of ST to match its decline in importance. Although 5 points per level is simplest, it's also workable to use a scheme that depends on *campaign* TL (not *individual* TL!), like this:

TL	***0-4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***
Cost/Level	10	9	8	7	6	5	4	3	2

Reducing ST cost makes it imperative to do the same for HP (*Cheaper Hit Points,* p. 7) and to adjust the costs of several advantages (*Attribute Costs and Advantages,* p. 11).

The mere presence of high-TL gear isn't enough to justify cheaper ST, though! Those tools must be available to PCs *and* decisive in adventuring situations – especially *combat* situations. In a CR5-6 dystopia where all the interesting equipment is controlled, or a campaign in which cinematic rules empower the martial arts to rival guns (as in ***GURPS Action 3: Furious Fists***), ST retains its value. Also remember to consider the setting's sustainable TL; a post-apocalyptic world ruined by death rays and robots might have treasures hidden in the ashes, but the "real" TL for most people, most of the time is low – and again, ST remains precious. In some such cases, the GM might even consider *More Expensive ST* (p. 10).

It isn't always a question of tech, either. If the campaign is an unusual one with PCs who take few or no *personal, physical* risks – be they as exotic as spirits in the æther or as mundane as brainy officials controlling armies and empires without ever showing up in person – ST isn't going to matter. If the GM chooses not to eliminate ST (see *Doing Away with Attributes,* pp. 37-40), it should cost very little, as it amounts to insurance against rare dangers. It's probably about as important as Courtesy Rank (p. B29) – a way to add color more than capability – and worth perhaps 1 point/level.

Finally, ST might be made cheaper by fiat in ***Supers*** campaigns, where Innate Attack, Telekinesis (p. 11), and so on make muscles feel overpriced.

Cheaper DX

Dexterity is usually supremely relevant because it controls so many skills crucial to adventuring: all *combat* skills; most other "action" skills, from athletics (like Climbing) to subtlety (like Stealth); and skills for controlling vehicles. Reducing its price would make sense only in highly atypical campaigns where the PCs take few or no personal, physical risks, as discussed in *Cheaper ST* (p. 4).

Moreover, DX contributes to Basic Speed, and reaction time tends to matter even in unusual campaigns. Which disembodied spirit acts first is important even if the heroics are by no stretch "physical." Generals and presidents running the world may have to dodge assassination attempts. And so on.

Broadly, if DX contributes to secondary characteristics, start with the point value of what a level of DX contributes. In the standard rules, Basic Speed begins at (DX + HT)/4 and costs 20 points/level, so each +1 to DX contributes +0.25 to Basic Speed, worth 5 points. If the price or formula for Basic Speed changes – or if DX is implicated in *other* secondary characteristics – this contribution might change as well.

Assume that the remaining price per level reflects the value of DX to skills. Again in the standard rules, that's 15 points/level. Subdividing this in proportion to the number of DX-based skills of each broad category in the ***Basic Set,*** this breaks down *roughly* as 9 points/level for combat skills, 3 points/level for athletic skills, 2 points/level for transport skills (Driving, Parachuting, Riding, etc.), and 1 point/level for "sneaky" skills (Escape, Filch, Stealth, etc.). Keep the contributions associated with skills that show up at least some of the time in the campaign.

These skill contributions are based on what *proportion* of the DX-based skill list is devoted to each class of task, not on absolute skill count. That's generally fine, as not all campaigns use every skill in *any* category. But the GM may adjust proportions to reflect the campaign's premise; e.g., if the PCs are the AI brains of starships, never engaging in athletics or sneaking, and rarely using combat skills because the crew doesn't trust AIs with weapons, then transport skills are undervalued at 2 points/level and are probably more fairly compared to combat skills at 9 points/level. Alternatively, the GM could redo the math based on a completely different set of categories.

Total all contributions to estimate a fair value for DX. For instance, if the GM plans to run a high-level political campaign where the PCs may have to drive (transport skills, 2 points/level), skulk (sneaky skills, 1 point/level), and dodge assassins' bullets (Basic Speed, 5 points/level), but where there *won't* be genuine action scenes, it might be fair to price DX at 8 points/level.

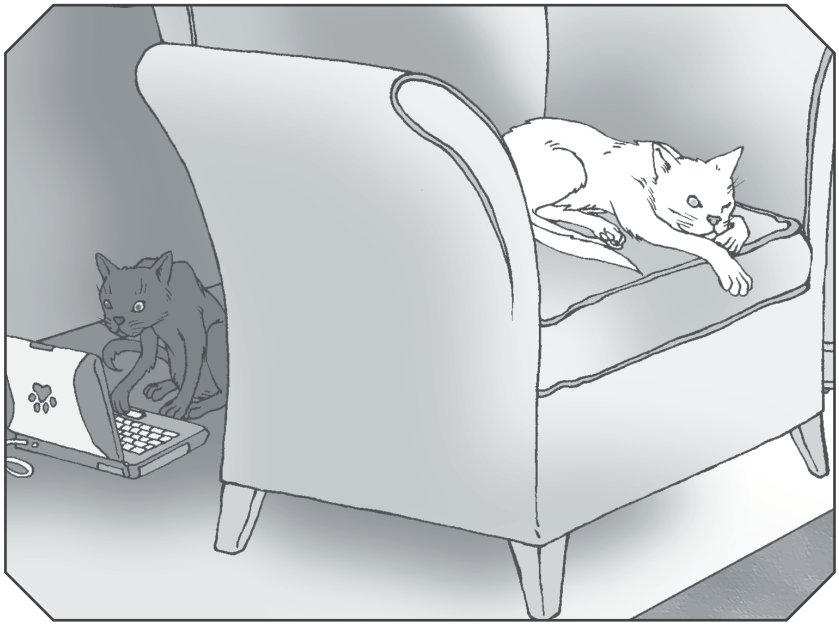
Again, this is only for gaming so far from the mainstream that DX genuinely fades in significance. For instance, while a campaign inspired by ***Car Wars*** may have no meaningful combat skills other than Fast-Draw, Gunner, Guns, Throwing (for grenades), and *maybe* Beam Weapons and Liquid Projector, and be focused on a handful of transportation skills, that doesn't mean it's wise to reduce DX cost – the game is all about reaction time and physical risk, and the GM might actually adopt *More Expensive DX* (pp. 10-12) alongside *Cheaper IQ* (below) to reflect this!

Cheaper IQ

Intelligence, like DX, is important to a great extent because of the number of skills it controls. In a game where thinking isn't a priority, though, it *might* make sense to lower its price. In that case, follow the road map laid out under *Cheaper DX* (above).

First, if IQ contributes to secondary characteristics, start with the point values of what a level of IQ contributes. Under the standard rules, Will and Per start out equal to IQ and cost 5 points/level apiece, so each +1 to IQ contributes +1 to Will and Per, for a total of 10 points/level.

Next, interpret the remaining value – 10 points/level in the standard rules – as being largely about skills. Grouping the IQ-based skills in the ***Basic Set*** into a small number of key categories, one acceptable breakdown would be 3 points/level for academic skills (those that rarely affect adventures, including skills for occult *theory,* which supplant the sciences in fantasy), 2 points/level for social skills (not merely Influence skills, but also anything that requires a society to make sense, such as Administration, Current Affairs, and Merchant), 2 points/level for technical skills (for operating or repairing equipment – including vehicles), and 3 points/level for "adventure" skills (non-social, non-technical skills that could lead to physical danger on a failure; e.g., Counterfeiting, Poisons, Shadowing, and medical skills). Retain contributions from categories likely to matter in the campaign.



As with DX-based skills, the GM may tweak these proportions to reflect importance, or choose a completely different categories. For instance, in that campaign where the PCs are the AI brains of starships, they might have *only* technical skills because they don't pick locks, tell lies, perform surgery, make deals, etc., and rely on databases – not skills – for academic knowhow. But those all-important technical skills are functionally "adventure" skills, too, and the GM might peg their contribution at 5 points/level.

Total all contributions to estimate what IQ should be worth. In that science-fiction campaign about AIs, the GM may define Will (5 points/level) as what's used to resist hacking and computer viruses, use Per (5 points/level) for processing sensor input, and go with the 5 points/level suggested for skills, making IQ worth 15 points/level because it lacks many social and practical dimensions.

In an arena-combat campaign inspired by ***Man to Man,*** if the GM keeps IQ instead of eliminating it as irrelevant (*Doing Away with Attributes,* pp. 37-40), it might be worth only what Will and Per are worth – 10 points/level – or less if one or both of *those* scores is reduced in cost for its lack of importance. That isn't the same as saying "Just delete IQ and use Will and Per," though. There could be specialized uses of IQ that show up too rarely to increase its value yet make it useful to retain in its own right.

Non-Uniform Progressions

Alternate Attributes assumes basic attributes and secondary characteristics have a fixed price per level (±1 to the score). That needn't be the case!

Prior to ***GURPS*** *Fourth Edition,* all basic attributes used this progression:

Score	*Point Cost*	*Score*	*Point Cost*
6 or less	-10 points/level*	13	30
7	-20	14	45
8	-15	15	60
9	-10	16	80
10	0	17	100
11	10	18	+25
12	20	or more	points/level*

* Cost per additional level below 7 or above 17; e.g., -60 points for 3 or 200 points for 21.

That worked for 18 years. Many gamers liked it. If *you* like it, use it!

Indeed, you can write any point cost you like next to each score, leading to infinite possible progressions. These fall into some general categories:

Flat: A fixed price per ±1. ***Alternate Attributes*** adopts this approach because it has many useful properties: It's easy to remember. Racial modifiers are fairly priced for everyone; e.g., if ST is always 10 points/level, ST+1 clearly costs 10 points. Secondary characteristics and advantages that are effectively modifiers to *parts* of attributes are likewise fair at flat rates.

Increasing: Per-level cost goes up as the score gets larger – as for scores of 9-18 on the table above – to curb abuse of high attributes. This is harder to remember. It makes racial modifiers unfair for some characters; e.g., using that table for ST, if we price ST+1 at 10 points, that's a discount for someone who buys ST 13+ (ST 14 costs 40 points, not 45), a rip-off for someone with ST 8-9. Modifiers to *parts* of attributes have similar issues; e.g., if HP cost 2 points/level, they get progressively cheaper relative to the cost of ST.

Decreasing: Per-level cost goes *down* as the score gets larger – presumably under the assumption that high values give diminishing returns. This has similar problems to an increasing progression.

Mirror: A progression might increase or decrease not at *higher* values but as one gets *further from the center* (10, for attributes). An example is a progression like that on the table, with the change that it prices scores of 9 to 1 (-1 to -9 to 10) just like 11 to 19 (+1 to +9 to 10), with a minus sign: -10 at 9, -20 at 8, and so on down to -150 at 1. This has all the problems mentioned already.

Irregular: The progression differs depending on where you're at. It may even be arbitrary. The table above is irregular: flat at 1-7, briefly decreasing for 8-9, and then increasing at 10-18 before flattening again – and certainly not mirrored. ***GURPS*** *Third Edition* proposed using that for ST up to 15, but 10 points/level at ST 16-23, 5 points/level at ST 24-30, and 0.5 point/level at ST 31+; thus, ST threw in *another* decreasing segment after ST 15. Such schemes have all the problems mentioned above – especially "hard to remember"!

If you *want* to use triangular numbers, doubling, the Fibonacci sequence, or whatever – perhaps several things in different places – it's your game. Just be aware of the drawbacks!

First, *only* flat progressions price racial modifiers fairly. Non-flat progressions work best when everybody belongs to the same race – or when racial modifiers are retired in favor of required or suggested racial levels that have their usual cost.

Secondary characteristics – and advantages like Acute Senses, Lifting ST, and Talents, which work similarly – have the same problem as racial modifiers unless they're priced as a fraction of the cost difference (probably the fraction they represent for someone with dead-average scores in the standard rules). For instance, you could rule HP, Lifting ST, and Striking ST have 20%, 30%, and 50% of the cost of the corresponding ST difference rather than a cost per level. With the table above, someone with ST 11 who takes HP 8 would pay 20% of the -25-point difference between ST 8 and 11, or -5 points, while Striking ST 3 would cost 50% of the 35-point difference between ST 11 and 14, or 18 points. But these things *still* won't work out fairly as racial traits!

Also, the progression won't be easy to remember. The math will be tougher. Players will ask more questions and find more loopholes.

You can avoid some difficulties by using flat progressions for secondary characteristics and/or attribute-like advantages, but then there *will* be places where they're too cheap or too expensive.

Or you can avoid *all* of this trouble by using flat progressions for attributes, which is why ***Alternate Attributes*** (and Fourth Edition) does exactly that!

Cheaper HT

Like ST and DX, HT might at first seem too expensive in campaigns where the heroes take few personal, physical risks – but breaking down its point cost to determine a fairer price is tricky. In the standard rules, +1 to HT gives +1 FP (3 points) and +0.25 to Basic Speed (5 points). The ***Basic Set*** lists 13 HT-based skills, compared to 235 DX- and IQ-based skills which contribute a total of 25 points/level to their attributes; that suggests a contribution of 1-2 points/level for skills. All that stuff *can* squeeze into 10 points/level.

But it's a tight fit, especially if the GM wants to base further secondary characteristics on HT. Worse, it omits HT *rolls,* which are the most important basic attribute rolls in the game, as they protect against poison, disease, stun and knockdown, unconsciousness, crippling, death, and lots of other awfulness. That's definitely worth something! One could (whimsically) treat "Failing HT Rolls" as a "Very Common" category of Resistant that costs 10 points for +3 or 15 points for +8, for 1.9 to 3.3 points per +1 to HT rolls – which should probably round to 3 or 4 points/level, or who'd take Hard to Kill or Hard to Subdue?

In light of all this, it's usually best not to make HT cheaper – it might be too cheap as is! The GM would be within their rights to *raise* its cost to as high as 14 points/level; see *More Expensive HT* (p. 12).

Yet if FP are isolated from HT (*Independent Fatigue Points,* pp. 22-23) or omitted (*Doing Away with Attributes,* pp. 37-40) because the PCs and everyone else built on points are entities without FP – or if the GM finds tracking FP tedious and doesn't bother to do so (common in campaigns that lack superhuman abilities) – one can use 5 points/level for Basic Speed + 2 points/level for skills + 3 points/level for HT rolls = 10 points/level, or alternatively 5 points/level for Basic Speed + 1 point/level for skills + 4 points/level for HT rolls = 10 points/level. Anything that doesn't seem relevant can disappear, lowering HT costs.

This shouldn't be common! It mostly suits campaigns where all the PCs are undead, constructs, or machines without FP, with fixed physical capabilities that are unaffected by learnable skills such as Body Control, Breath Control, Hiking, Lifting, Running, and Swimming. Then it *might* be acceptable to charge 8 or 9 points/level for HT.

Notably, cheaper HT isn't actually a great fit to "cerebral" campaigns like those about spirits or heads of state. The heroes might not burn FP (though spirits often have powers which require that), but Basic Speed is still useful when answering "Who acts first?" and "Can I dodge the assassin's knife?"; Carousing, Sex Appeal, and a few other HT-based skills remain relevant; and HT rolls continue to matter, whether to resist hostile powers or to survive assassins who prefer poison.

Cheaper Secondary Characteristics

There are two main reasons to reduce the cost of secondary characteristics. One is to adjust them to better suit campaign needs, following principles similar to those discussed at length in *Cheaper Basic Attributes* (pp. 4-7). The other is to accommodate reductions in the cost of the attributes from which they're calculated.

The following advice pertains to the secondary characteristics described in the ***Basic Set,*** but the concepts apply even if the GM tinkers with those characteristics or adds new ones using the guidelines in Chapter 2.

> *One size does not fit all.*
> *– Frank Zappa*

Cheaper Hit Points

The top reason to reduce the cost of HP is because ST was made cheaper. Scale HP by the same factor as ST. For simple math, round *up.* Thus, HP cost 2 points/level when ST costs 6-10 points/level, or 1 point/level when ST costs less.

Math-tolerant gaming groups may prefer to keep fractional *per-level* costs and round *purchase* costs; e.g., if ST costs 6 points/level, or 0.6× as much as usual, HP cost 1.2 points/level, so +3 HP costs 3.6 points, which rounds up to 4 points (not 6 points). This is strongly recommended in campaigns where ST is nigh-cosmetic and costs 1 point/level; each +1 HP costs 0.2 points, so +1 to +5 HP rounds to 1 point. When many values have the same price like this, the GM is free to rule that the points buy the maximum possible HP (in that example, every point buys +5 HP).

Occasionally, HP might seem too expensive even when ST doesn't. In certain takes on ***Supers,*** superheroes can absorb damage out of whack with even their high ST; ***Action*** martial-artists can take a lot of punches; and ***Dungeon Fantasy*** heroes traditionally have mountains of HP. In that case, just discount HP – probably to 1 point/level instead of 2 points/level, though two, three, or more HP *per point* is simple enough. This may or may not affect the price of ST, reducing its cost. If so, don't then apply the advice about scaling HP cost to ST cost – pick one direction or the other!

Any such changes apply *before* the Size limitation, where applicable.

Cheaper Will

Will has two cost components. First, it controls 12 skills. A calculation similar to that in *Cheaper HT* (above) suggests that this element contributes 1-2 points/level. Of those skills, one, Intimidation, is "mundane"; the others range from the esoteric (Autohypnosis, Dreaming, Meditation, Mind Block), through the cinematic (Mental Strength and Power Blow), to the outright supernatural (Exorcism and the Enthrallment skills).

Second, Will is used to resist many things. If Fearlessness costs 2 points/level, Will's bonus to Fright Checks is worth *almost* as much (a little less, as Fearlessness subtracts from Intimidation while Will doesn't). Being resistant to mind-affecting abilities like magic and psi is valuable – the best comparison is to the 4 points/level of Mind Shield, which *also* hides you and aids IQ-based resistance. Will resists a few mundane skills as well, notably Brainwashing and Hypnotism (which are uncommon), and Interrogation and Influence skills (which are usually used *by,* not *on,* PCs). A "generic" breakdown of the resistance component might be 1-2 points/level for Fright Checks, 2-4 points/level for exotic powers, and 1-2 points/level for mundane skills.

So the math here suggests that in some campaigns, Will might be too cheap; the GM could easily justify up to *10* points/level in a game with lots of weirdness, like a ***Horror*** campaign where people routinely use and resist strange powers, roll Fright Checks, and confront cannibalistic forensic psychiatrists and other manipulative psychos. See *More Expensive Will* (p. 13).

On the other hand, many campaigns feature few or none of these things. In a "hard" science-fiction game or a modern-day ***Action*** one without cinematic martial-arts skills, all that might matter is making Intimidation rolls (1 point/level) and resisting mundane skills (1-2 points/level), reducing the fair cost to 2 to 3 points/level (and ensuring that nobody spends more than 1 or 2 points on Intimidation, which is fine given how easy it is to get big bonuses for behaving like adventurers behave anyway).

In between, add or subtract what suits the campaign – but the generic 5 points/level is a nice average. For instance, ***Dungeon Fantasy*** heroes often have Will-based skills (1-2 points/level) and routinely resist spells, curses, and other supernatural influences (3-4 points/level), but are largely too tough to care about Fright Checks (except when caused by the supernatural influences already accounted for) and live in a world that lacks the social subtleties that would see them resisting mundane skills (bad guys just cast spells, also counted among supernatural influences).

Don't reduce the cost of Will because IQ was made cheaper! If Will costs less than 5 points/level, however, reduce the cost of IQ by the same amount.

Cheaper Perception

Like Will, Per has two cost components. It, too, controls 12 skills; calculating what this is worth relative to DX- and IQ-based skills works as shown in *Cheaper HT* (p. 7), and puts the contribution at 1-2 points/level. Most of these skills are fairly ordinary ones: Fishing, Lip Reading, Observation, Scrounging, Search, Survival, Tracking, and Urban Survival apply across many genres – as do Body Language and Detect Lies, even if they seem slightly cinematic. Only Blind Fighting and Esoteric Medicine truly deal in the exotic.

More important, Per is the basis of all Sense rolls (p. B358). To price this, start with Acute Senses at 2 points/level and swipe inspiration from alternative abilities (***GURPS Powers,*** p. 11): Use full price for the first sense, and 1/5 price, rounded *up,* for the rest; for costs this small, round up at the very end. The standard rules treat Acute Hearing, Taste/Smell, Touch, *and* Vision this way, for 2 + (2 + 2 + 2)/5 = 3.2 points, rounded up to 4 points, per level. Tacking on an extra Acute Sense for unusual-but-not-superhuman senses – like Danger Sense – gives 3.6 points/level, which *still* rounds to 4 points/level. Unless everyone in the campaign has lots of extraordinary senses, 4 points/level is fine, while even in a strange campaign where all the PCs have but a single channel of sensory input, 2 points/level is an absolute floor (as a campaign where nobody senses anything would be boring!).

Thus, 5 points/level is fair in most campaigns. Even in a highly abstract social game where the PCs are mainly the minds behind big decisions, Lip Reading, Body Language, and Detect Lies are likely to arise during meetings and interviews (players *will* ask, "Did I overhear that?", "Can I trust him?", etc.), while Scrounging might influence resource acquisition; 1-2 points/level for skills is recommended. Charging 2 points/level for what amounts to an abstract Acute Sense added to IQ for spotting impostors, assassins, etc. suggests 3 or 4 points/level.

As with Will, don't reduce the cost of Per because IQ was made cheaper – but if Per drops below 5 points/level, reduce the cost of IQ by the same amount.

> *The cost of a thing is the amount of what I will call life which is required to be exchanged for it, immediately or in the long run.*
>
> *– Henry David Thoreau,* ***Walden***

Cheaper Fatigue Points

As *Cheaper HT* (p. 7) discusses, HT is valuable and unlikely to drop in cost. This is a function of its far-reaching benefits, of which FP aren't a leader – in fact, isolating FP from HT (*Independent Fatigue Points,* pp. 22-23) could be what makes HT at 10 points/level reasonable, avoiding *More Expensive HT* (p. 12). This militates against scaling down the cost of FP with that of HT in the manner suggested for HP when ST is made less expensive.

Yet in campaigns where FP aren't tracked, they're worth *nothing.* This happens most often when there are no interesting special abilities that consume FP (such as cinematic martial-arts skills, psionics, and spells) and the gaming group finds FP costs for hiking, missed sleep, etc. tedious. The swiftest fix is to eliminate FP from the game (*Doing Away with Attributes,* pp. 37-40), but that isn't *entirely* satisfactory, as the GM may still want to use diseases, poisons, and afflictions that deplete FP – and players might want to use extra effort.

A fair compromise is to start at *4* points/level and subtract 1 point/level per element omitted: a HP analog that absorbs damage from a rare category of nonlethal attacks, fuel for extra effort, fuel for extraordinary abilities, and mundane fatigue (caused by missed sleep, skipped meals, and so on). Most campaigns require only *one* of the latter two – in games that feature magic, chi abilities, or superhuman powers, worrying about tedious mundane stuff seems petty and there are ways to work around it (e.g., the Recover Energy spell). If *all four* won't matter, get rid of FP; otherwise, use the adjusted price.

For instance, in a gritty game where soldiers and spies use extra effort, worry about chow and rest, and are subject to drugs and poisons, only special abilities are absent and the standard 3 points/level is fair. In a ***Dungeon Fantasy*** campaign where extra effort, special abilities, and fatiguing attacks are common, 3 points/level remains just. But in a "Papers and Paychecks" game where FP measure endurance during long meetings, 1 point/level would be fairer because nobody can spend FP on anything and the only losses are to tedium.

Generally, FP cost reductions shouldn't affect HT cost – think of them as a way to keep HT reasonably priced in campaigns where the *other* aspects of HT are worthwhile. But in the rare cases where much of the value of HT comes from FP, reduce the cost of HT and FP by the same number of points.

Cheaper Basic Speed

Basic Speed is yet another characteristic with multiple components. In the standard rules, +1.00 to Basic Speed gives +1 to Basic Move (5 points) and +1 to Dodge (worth 15 points as Enhanced Dodge).

In an abstract campaign where moving around a battle map won't happen *and* travel is a function of suitable transportation resources, the Basic Move element becomes near-meaningless. This could be because *all* PCs are disembodied minds (any vehicles, robots, possessed slaves, etc., they control have Move unrelated to their master's Basic Speed), grand-strategic administrators (whose displacements depend on logistics, not athletics), or completely sedentary (enchanters might never leave the Wizards' Guild Hall). In such a game, subtract 5 points/level from the cost of Basic Speed.

Dodge is trickier – even in the examples above, assassins can strike! When one failed roll means death, defensive considerations remain important. Still, the GM may lower this component's value to reflect rarity. Suggested values are 10 points/level for military leaders, AIs that control war machines, and others in the line of fire, or just 5 points/level for people who are *nearly* out of danger's reach. If there's *no* risk, consider *Doing Away with Attributes* (pp. 37-40).

Basic Speed also determines who acts first. The *dominant* situation here is the combat sequence, which is cyclic; "going first" loses its value after a turn. Thus, this is deemed a zero-cost feature of Basic Speed, though to keep gamers who want to exploit it honest, it can be considered a leveled perk, worth 1 point per +1.00; see, for instance, *Blinding Strike* (***GURPS Dungeon Fantasy Denizens: Swashbucklers,*** p. 22). If going first is a bigger deal – and it might be, for those controlling decisive first-strike capabilities – this component can *increase* in value, perhaps to 5 points/level.

Price Basic Speed using the sum for these campaign assumptions. For instance, in a fairly abstract "traveling merchants" game where Basic Move is relevant (the merchants travel) and Dodge helps avoid occasional assassination attempts, it could be worth 10 points/level. In an equally abstract campaign about generals, Basic Move *won't* matter but Dodge rolls are more common; 10 points/level is *still* fair. And if the PCs are all AIs, Basic Move is irrelevant but acting first may be crucial, suggesting 5 points/level for completely nonphysical campaigns on up to the usual 20 points/level if Dodge rolls for controlled robots and vehicles are important.

Skill Contributions as Talents?

This chapter pays repeated visits to the subject of divvying up skills into categories and weighing their importance to attribute prices. A canny gamer might ask whether the values estimated for those "skill contributions" would be reasonable costs for Talents covering the associated skill categories.

The answer is a resounding "No!"

For one thing, Talents include accelerated learning, reaction bonuses, and/or alternative benefits (***GURPS Power-Ups 3: Talents***), not just skill bonuses. For another, much as skill bonuses cost less than skills as part of a Talent (***Talents*** recommends 1 point per skill per level) or racial template (*Racial Skill Bonuses and Penalties,* p. B452, suggests 2 points per +1), skill bonuses in attributes are cheaper than those other skill bonuses. This keeps skills relevant and prevents players from too easily creating one-trick characters.

None of which means attribute prices can't affect Talent costs . . .

Talents

Talents should cost less per level than attributes or nobody will buy them! It's easiest to scale a Talent in proportion the attribute that governs *most* of its skills, dropping fractions to keep it competitive; e.g., Animal Friend has five IQ-based skills and one DX-based one, and costs 5 points/level, so if IQ is lowered from 20 to 15 points/level, Animal Friend's cost scales to 3.75 points/level, rounded to 3 points/level.

Alternatively, get fancy and use a weighted average. Writing attribute cost per level as [Attribute], the formulas for price per level for the Talents in the ***Basic Set*** are:

Animal Friend: [DX]/24 + (5/24)×[IQ]
Artificer: [IQ]/2
Business Acumen: [IQ]/2
Gifted Artist: [DX]/10 + (3/20)×[IQ]
Green Thumb: [IQ]/4
Healer: (4/9)×[IQ] + (2/9)×[Per]
Mathematical Ability: [IQ]/2
Musical Ability: [IQ]/5 + [HT]/10
Outdoorsman: (2/7)×[IQ] + (6/7)×[Per]
Smooth Operator: (27/52)×[IQ] + (3/13)×[HT] + (3/13)×[Will] + (3/13)×[Per]

That's terribly complex – but then, the GM has to do it only once, at the start of the campaign. Again, drop fractions. If you reprice a Talent, change the skills a Talent covers, or move skills to other attributes, you'll have to redo the math!

Don't worry about how much of a repriced attribute's new cost has to do with skills, unless the answer is "none, because those skills don't exist." In that case, cut the Talent along with the skills.

Talents – and advantages that work similarly, like Charisma and Magery – might instead be promoted to attributes. See *Promoting Advantages to Attributes* (pp. 23-27).

Under the standard rules, cost reductions should affect DX and HT pricing. Divide cost by 4 get the contribution per level to those attributes. A suggested rounding: +1 point/level if Basic Speed costs 5 points/level, +2 points/level at 10 points/level, +4 points/level at 15 points/level, or the usual +5 points/level at 20 points/level. Going the other way – scaling Basic Speed cost in proportion to DX or HT cost – isn't advised.

Cheaper Basic Move

Basic Move is "all or nothing" in most campaigns: Important characters either move around or they don't. If they don't, consider eliminating the characteristic (*Doing Away with Attributes,* pp. 37-40). If they do, keep 5 points/level.

For those unafraid of complexity, Basic Move can be broken down into tactical and logistical facets. The tactical aspect is about movement on a battle map. The logistical element is about traveling from one interesting place to another in "fast time" (p. B497).

Tactical movement is generally so decisive that if it matters at all, 5 points/level remains a fair cost. But if it won't *ever* be important in the campaign – while travel from A to B will be – a lower cost is probably fair. Suggested costs are 4 points/level if travel on foot (but not combat!) is the game's focus, 3 points/level if horses or *unreliable* vehicles (stagecoaches, trains that often derail, primitive steam cars, etc.) start to render such movement less relevant, 2 points/level in campaigns where reliable vehicles make such situations rare adventures, and 1 point/level if Basic Move settles only "How long to dash from my quarters to the bridge of the huge vehicle we're on?" If everyone moves at the speed of thought or matter transmission, that's *Doing Away with Attributes* again.

That said, the prevalence of tactical *combat* (fighting involving turn-by-turn decision-making) doesn't always determine the importance of tactical *movement* (moving around on small-scale battle maps). If weapons are long-ranged enough that most engagements happen at distances where a Move maneuver rarely affects the range penalty (say, at 30+ yards), and powerful enough that getting to cover lighter than true fortifications doesn't meaningfully enhance survival, tactics remain important but depend weakly on running speed. This describes open warfare at TL6+. In games like that, the cost for travel alone – 1 or 2 points/level at TLs where "tactical movement" means "maneuvering in military vehicles" – is fairer, though the GM may add 1 or 2 points/level if close-quarters battle is, respectively, an occasional or routine occurrence.

Cost reductions for Basic Move lower the cost per level of Basic Speed, with knock-on effects for DX and HT.

More Expensive Basic Attributes

Attributes (DX and IQ at least) are *already* costly, yet there are situations where the GM may want to raise their price. When doing so, be aware that many people find five-point chunks most pleasing (see *Aesthetic Pricing,* p. 15) – that is, ST or HT at 15 or 20 points/level rather than 10 points/level, and DX or IQ at 25, 30, 35, etc. points/level rather than 20 points/level.

But again: Why change the cost?

More Expensive ST

Though it's common to feel that ST is too expensive, particularly in TL5+ and ***Supers*** campaigns, it's rare to find it too *cheap.* Still, in games about early hominids (which may posit "TL -1") or set in the Stone Age (TL0) – or in the post-apocalypse genre, where the TL might be higher but technology is scarce or unreliable – ST is exceedingly valuable: Damage-dealing is a matter of muscles more than weapons; equipment is primitive and cumbersome, and there may not be domesticated animals, much less vehicles, to haul it; and with minimal armor, HP are vital for absorbing injury. Strength is also likely to be underpriced in an unusual game about competitive athletics (say, "***GURPS Boxing***") and nothing else.

In those and similar situations, the GM may want to raise the price of ST. There's no easy formula, but in games where few to no IQ-based skills matter, there's a decent case to be made for pricing IQ at 10 points/level and "redistributing" the other 10 points/level between ST and HT as seems fitting (usually, if one of these is unusually important, so is the other!). Raising ST to 15 points/level is *probably* the sensible upper limit – and if *More Expensive HT* (p. 12) raises HT to 16, 17, or 18 points/level, ST might go up to only 14, 13, or 12 points/level.

When raising the cost of ST, increase the price of HP (*More Expensive Hit Points,* pp. 12-13) and of Arm ST, Lifting ST, and Striking ST (*Attribute Costs and Advantages,* p. 11) as well. Scale the costs of all these things by the same factor; e.g., if ST is 15 points/level, charge 3 points/level for HP, 4 or 5 points/level for Lifting ST, and 7 or 8 points/level for Striking ST. Round prices in whatever direction best suits campaign assumptions; in the example above, if there's little equipment to carry, consider 4 and 8 points/level, respectively.

An alternative approach is to adjust the prices of HP, Lifting ST, and Striking ST to better fit the campaign and then make the cost per level of ST equal to the sum of +1 to each. For instance, in a game with an unusual focus on heavy lifting, Lifting ST may be worth twice as much (6 points/level), meaning ST costs 2 + 6 + 5 = 13 points/level; in ***GURPS Boxing,*** both HP and Striking ST could double in value while Lifting ST rarely matters and drops to a leveled perk, resulting in ST at 4 + 1 + 10 = 15 points/level. You could also use this method for *Cheaper ST* (p. 4), but it provides more latitude here – there's no limit on how *high* a price can go.

More Expensive DX

Dexterity isn't cheap. Yet as *Cheaper DX* (p. 5) explains at length, it may merit its high price tag in classic adventure gaming, as it contributes to Basic Speed *and* controls almost every "action" skill. That section proposes breaking down +1 to DX as +0.25 to Basic Speed (5 points), +1 to combat skills (9 points), +1 to athletic skills (3 points), +1 to transport skills (2 points), and +1 to sneaky skills (1 point).

Those skill categories and their assigned point values are subjective, however, and the GM may exploit that subjectivity if certain classes of skills are unusually important. The quickest way to do this is to offer (new) Talents that boost action skills, and increase the cost of DX to make those competitive.

Attribute Costs and Advantages

The following advantages are effectively *parts* of basic attributes or secondary characteristics. Advantage pricing is beyond the scope of ***Alternate Attributes,*** but if you adjust the cost of the trait in **boldface,** consider altering the cost of the associated advantage(s). If you *eliminate* the attribute (see *Doing Away with Attributes,* pp. 37-40) – or reduce its cost to 1 point/level – eliminate the advantage, too!

Acute Senses: When repricing **Perception,** reprice these traits. Proportional scaling works: 1 point/level if Per is 2-3 points/level, 2 points/level if it's 4-6 points/level, 3 points/level if it's 7-8 points/level, 4 points/level if it's 9-11 points/level, 5 points/level if it's 12-13 points/level, 6 points/level if it's 14-15 points/level. If Sense rolls disappear but Per remains, eliminate Acute Senses. *Discriminatory Hearing* and *Sensitive Touch* include Acute Hearing 4 and Acute Touch 4, contributing 8 points of their value; *Discriminatory Smell* and *Taste* give Acute Taste and Smell 4 between them, so each gets 4 points from that. Scale these cost components, too.

Arm DX and *High Manual Dexterity:* If **DX** matters for things other than Basic Speed, scale the costs of these advantages proportionally. If it doesn't, eliminate these traits.

Arm ST, Lifting ST, and *Striking ST:* Costs of these things should generally scale proportionally with **ST;** e.g., if ST is 6 points/level, use 2 points/level for Lifting ST and 3 points/level for Striking ST. It's pleasing if +1 HP, +1 Lifting ST, and +1 Striking ST add up to the price of +1 ST; try rounding to ensure this. If ST pricing changes because these specific aspects of ST are deemed more or less important, use the "hidden cost" estimated for that component of ST. Any cost changes here apply *before* the No Fine Manipulators or Size limitations, where applicable.

Enhanced Dodge: This is a huge part of the value of **Basic Speed.** If that side of Basic Speed changes in value, use its cost for this trait.

Fearlessness: If **Will** changes price, price this trait proportionally: 1 point/level if Will is 2-3 points/level, 2 points/level if it's 4-6 points/level, 3 points/level if it's 7-8 points/level, 4 points/level if it's 9-11 points/level, 5 points/level if it's 12-13 points/level, 6 points/level if it's 14-15 points/level. *Unfazeable* should scale similarly; use three times the per-level cost of Will. If Fright Checks won't matter, eliminate both advantages!

Fit/Very Fit: These include +1 and +2 to **HT** rolls, which *Cheaper HT* (p. 7) pegs at 3 or 4 points/level; thus, Fit costs 1-2 points for FP effects and 3-4 points for +1 to HT rolls, while Very Fit costs 7-9 points for FP effects and 6-8 points for +2 to HT rolls. If HT changes price, adjust the part of advantage cost associated with HT rolls – only – proportionally.

Hard to Kill and *Hard to Subdue:* Cost of these traits should scale with **HT;** e.g., if HT costs 15 points/level, consider 3 points/level for these.

Mind Shield: This should usually scale in proportion to **Will,** rounded to cost less per level. If Will costs 2-7 points/level, a point less per level (1-6 points/level) works; if Will costs 8-10 points/level, *two* points less per level (6-8 points/level) is better. If strange mental powers don't exist, eliminate this trait whatever Will is worth.

Rapid Healing/Very Rapid Healing: Rapid Healing is a circumstantial +5 to **HT;** scale its cost proportionally with HT. Very Rapid Healing adds a separate effect on top, and always costs 10 points more.

Talents: These are complicated enough to merit their own discussion. See *Talents,* p. 27.

Telekinesis

While functionally ST at a distance, this might remain even if the campaign doesn't use ST from muscles, so its cost doesn't *have* to scale with ST. If ST is altered in price for supers – usually meaning "cheaper" – consider scaling Telekinesis similarly. For added detail, use 5/3 of the cost of Lifting ST, its most usual application.

Disadvantages

Many traits above have more-or-less opposing disadvantages: Easy to Kill (**HT**), Fearfulness (**Will**), Ham-Fisted (**DX**), Hard of Hearing (**Per**), Missing Digit (**DX**), Unfit (**HT**), etc. These can follow the same scaling advice. If *increasing* the cost of an attribute, though, related disadvantages don't *have* to give back more points – players are experts at working around their characters' flaws! Be aware that many "opposites" have effects unrelated to attributes; e.g., Slow Healing is not a HT penalty.

Recommended costs are 10 or 15 points/level for Talents for broad clusters of combat skills, and 5 points/level for Talents for groups of related athletic, transport, or sneaky skills. Raising the cost contribution of one or more DX components to equal the associated Talent costs makes Talents more attractive and individual skills *much* more attractive – a good thing if the campaign is about specialists. This results in DX at 21 to 35 points/level.

For instance, in a ***Car Wars*****-**inspired game, Basic Speed, athletic skills, and sneaky skills may not need tweaking, but Talent at skills for violence could rate 10 points/level (probably not 15 points/level, as melee skills don't matter much), while vehicle-handling Talents merit 5 points/level, leading to DX at 5 + 10 + 3 + 5 + 1 = 24 points/level. Going all the way to 35 points/level would be extreme but not completely crazy in campaigns that use wildcard skills (p. B175), as such skills plateau at 12 points/level, making them a bad deal next to DX.

The (illogical?) extreme is to apply the tripling used for wildcard skill costs to the skill-based component of DX, making that 45 points/level and DX *50* points/level. In a game where almost everybody is a cinematic specialist, a generalist is a de facto superhuman and should pay for the privilege!

If the price or formula for Basic Speed changes – or if DX affects *other* secondary characteristics – this contribution might change as well. Add it to the adjusted skill contributions to get the new price of DX.

Keeping Skills Relevant

After the campaign begins, players might improve DX or IQ not because it fits character concepts but because it's the cheapest way to raise a bunch of skills. That suggests another reason to make attributes more expensive: To encourage players to spend points earned in play on skills used in play. The ideal markup is a question of GM fiat, not math, but don't go too far ("You all have at least 20 IQ-based skills, so I'm making IQ cost 80 points/level!") – realistically, someone who exercises a wide range of skills probably *would* build up the underlying qualities they share.

More Expensive IQ

Like Dexterity, Intelligence is costly. *Cheaper IQ* (pp. 5-6) explains the reasons for this. There, +1 to IQ is presented as +1 to Will (5 points), +1 to Per (5 points), +1 to academic skills (3 points), +1 to social skills (2 points) +1 to technical skills (2 points), and +1 to the brainier kinds of "adventure" skills (3 points).

As *More Expensive DX* (pp. 10-12) discusses for DX-based skills, these skill categories and their assigned point values are subjective, so the GM has leeway to tweak them to better suit the campaign. Also as explained there, the recommended way to make such adjustments is by increasing the price of skill components to make Talents competitive. While the above categories are broad, often governed by 10- and 15-point Talents in the ***Basic Set,*** don't use *actual* Talent costs (to understand why, see *Skill Contributions as Talents?,* p. 9); the four categories above are best made comparable to 5 points/level Talents. This makes IQ cost from 22 to 30 points/level.

For example, if a campaign is about science and invention, but the PCs *also* test their theories and gadgets in the field, Will, Per, social skills, and "adventure" skills might be priced as usual, but academic and technical skills could contribute 5 points/level apiece, making IQ worth 5 + 5 + 5 + 2 + 5 + 3 = 25 points/level. The upper end, 30 points/level, is once again best saved for campaigns where everyone has wildcard skills (p. B175), to keep those skills attractive despite their cost of 12 points/level. Applying the triple cost of wildcard skills to the skill-based part of IQ would lead to IQ at *40* points/level.

If Will or Per changes in price, use the new cost when calculating the contribution to the price of IQ. In particular, *Cheaper Will* (pp. 7-8) and *Cheaper Perception* (p. 8) suggest 1-2 points/level for the parts of Will and Per that govern skills; if one or both of those skill components are repriced to make 5 points/level Talents competitive, the price of Will and/or Per goes up by 3-4 points/level, pushing IQ cost into the 23 to 28 points/level range. And if skill components are tripled in cost to make wildcard skills competitive, that could put IQ as high as *48* points/level. Gamers who value symmetry between DX and IQ (see *Aesthetic Pricing,* p. 15) could easily fudge these point costs into the ranges suggested for DX.

More Expensive HT

As *Cheaper HT* (p. 7) notes, HT is a bit of a bargain at 10 points/level. One possible breakdown of +1 to HT is +1 FP (3 points), +0.25 to Basic Speed (5 points), +1 to HT-based skills (1-2 points), and +1 to HT rolls (3-4 points), suggesting a "fair" price of 12 to 14 points/level in *any* campaign. The standard 10 points/level is fine in campaigns that minimize the importance of FP – but that's almost a special case!

Even in campaigns with lots of special abilities and extra effort that consume FP, generous HT pricing isn't *necessarily* a problem. Many things in ***GURPS*** are "package deals" – including any Talent or attribute relative to buying all the skills it boosts. Still, the GM might *want* to charge more if every one of the above components is going to be important.

Moreover, it wouldn't be unfair to *also* do what was suggested for DX and IQ, and price the skill contribution to make Talents competitive; here, 5 points/level would be fine. That would raise the cost of HT to 16 or 17 points/level. Similarly, if wildcard skills are central to the campaign, tripling the cost of the skill component to 3-6 points/level would lead to 14 to 18 points/level.

Finally, if either FP or Basic Speed changes in price, that component will also affect the final cost of HT.

More Expensive Secondary Characteristics

Increasing the cost of secondary characteristics could be an effort to better fit those traits to the campaign, for reasons similar to those proposed in *More Expensive Basic Attributes* (pp. 10-12). If you've made attributes more costly, raising the price of secondary characteristics based on them might instead be necessary for the math to work out.

For definiteness, this discussion focuses on secondary characteristics calculated and priced as in the ***Basic Set.*** The ideas remain valid if the GM alters those assumptions, however.

More Expensive Hit Points

When HP get more expensive, that's most often to keep pace with increased ST cost. Use the factor applied to ST and round *up.* Thus, HP cost 3 points/level if ST costs 11-15 points/level, 4 points/level if ST costs 16-20 points/level, and so on. But as with *Cheaper Hit Points* (p. 7), it's reasonable to retain fractional *per-level* costs, rounding only after buying HP; e.g., if ST costs 12 points/level, or 1.2× as much as usual, HP should cost 2.4 points/level, in which case +6 HP costs 14.4 points, which rounds up to 15 points (not 18 points).

Yet it isn't inconceivable that HP feel too cheap in their own right. Reasons for this might have little or nothing to do with the *direct* role of HP in absorbing injury. They could instead be tied to such rules as *Burning HP* (p. B237), *Slam* (p. B371), and *High HP and Healing* (p. B424).

For instance, in a fantasy campaign with standard magic (pp. B234-253), HP may be unusually valuable because on top of soaking up injury – which the standard rules rate at 2 points/level – they can be spent as FP that usually cost *3* points/level. The penalty caused by using HP to cast spells means they're not *quite* as good, but there's still extra utility relative to a game without magic. In the same campaign, doughty warriors *also* get great value from HP: At HP 20, 30, and so on, they receive double, triple, or greater benefit from healing spells!

In a campaign where everyone is a vehicle (entirely reasonable for, say, ***Transhuman Space***), ST mostly grants HP, determining toughness, and Lifting ST, determining cargo capacity. Although there might be no equivalent to Striking ST *as such,* HP effectively replace it, as they determine damage done by the usual "melee attacks" of vehicles: rams and overruns. This can justify a value as high as 5 points/level (perhaps with Lifting ST increased to 5 points/level, too, to keep ST at its usual price).

In cases like these, HP at 3 to 5 points/level make sense. This won't always affect the price of ST. If HP are more useful regardless of other traits, their cost per level may go up and raise that of ST by the same number of points; if they "steal" some of the value of ST's other components, their cost could increase while that of ST remains fixed. Either way, don't also apply the advice about scaling HP cost to ST cost – the influence here is in the other direction!

Changes to HP cost always apply *before* the Size limitation.

More Expensive Will

Will can rise in price for many reasons. First, it controls 12 skills – a component that *Cheaper Will* (pp. 7-8) rates at 1-2 points/level. Yet as *More Expensive IQ* (p. 12) remarks, it's sometimes desirable to reprice this element at 5 points/level, like a Talent, to keep *actual* Talents competitive; that adds 3-4 points/level to cost. Similarly, if wildcard skills are central to the campaign, the skill contribution could be tripled (like the price of the skills) to 3-6 points/level so *those* remain competitive, adding 2-4 points/level to cost.

Then there's Will's resistance component. This has facets similar to Fearlessness (2 points/level) and Mind Shield (4 points/level), and there's also a bonus to resist mundane skills (Brainwashing, Hypnotism, Interrogation, Influence skills, etc.), which could be eyeballed at 2 points/level relative to Indomitable (15 points) to mirror Fearlessness at 2 points/level relative to Unfazeable (*also* 15 points). As *Cheaper Will* notes, these aspects vary somewhat in actual utility: 1-2 points/level, 2-4 points/level, and 1-2 points/level, respectively.

The ***Basic Set*** quietly takes the low end of all of these ranges: 1 point/level for Will-based skills, 1 point/level against Fright Checks, 2 points/level against exotic powers, and 1 point/level against mundane skills. That gives the standard 5 points/level. But if *any* of the above aspects are particularly important to the campaign, the high end might be more suitable. The conceivable maximum is 6 points/level for (wildcard!) skills, 2 points/level vs. Fright Checks, 4 points/level vs. the paranormal, and 2 points/level vs. mundane skills. That's *14* points/level!

Reasonable values fall somewhere in between, depending on campaign assumptions. ***Monster Hunters*** has near-mandatory wildcard skills with many Will-based applications (6 points/level is fair) and *lots* of paranormal stuff (4 points/level is definitely justified); Fright Checks happen, but champions get to ignore "mundane" ones (1 point/level seems sensible); and the heroes aren't likely targets for mundane manipulation (1 point/level is justifiable there, too). That could explain 12 points/level. As *Cheaper Will* notes, more typical ***Horror*** games might go with 10 points/level. And in a ***Martial Arts*** campaign with lots of Autohypnosis, Meditation, Mental Strength, and (especially) Power Blow, 5 points/level for the skill contribution might seem wise, plus 4 points/level for the usual "resistance package" (martial artists get help from special skills, already accounted for): 9 points/level.

Don't increase the cost of Will merely because IQ got more expensive! If the cost of Will goes up, though, increase that of IQ by the same amount.

More Expensive Perception

While Perception is less likely than Will to need a cost increase, it could happen. Like Will, the dozen skills it controls contribute to its price. *Cheaper Perception* (p. 8) pegs this element at 1-2 points/level, but it could be set at 5 points/level to keep Talents that aid Per-based skills competitive, or at 3-6 points/level so wildcard skills with Per-based applications stay viable. In an espionage or investigative game (such as ***Mysteries***) where Body Language, Detect Lies, Lip Reading, Observation, Search, and Tracking are vital – or a wilderness campaign where Fishing, Survival, and Tracking are universal – it might be fair to make Per more expensive so it isn't *too* good a deal compared to Talents and skills.

Perception is also the basis for Sense rolls (p. B358). *Cheaper Perception* calculates this contribution by using the full 2 points/level of an Acute Sense for the first sense and then 1/5 price, rounded *up* at the end, for the others. The sensory contribution is fairly 4 points/level in campaigns where four to six senses are common *for all characters,* but might creep up to 5 points/level for seven or eight senses, 6 points/level for nine to 11 senses, or 7 points/level for 12 or 13 senses. It's hard to imagine everybody having that many senses – it would call for every human sense along with most of Danger Sense and multiple forms of Detect, Scanning Sense, and Vibration Sense!

The most likely scenarios are ones like that ***Mysteries*** game, where 5 points/level for skills keeps Talents relevant, or an ***Action*** campaign, where wildcard skills with regular Per-based applications suggest 6 points/level; either would then add the human-normal 4 points/level for senses to get 9-10 points/level. If every PC is a cyborg, robot, or vehicle with a sensor array, or a super with a basic "mutation package" that enhances senses, the math is more like the usual 1-2 points/level for skills but 5-6 points/level for senses, for 6-8 points/level. It would take a specialized campaign to require both corrections – say, a story about cyborg or mutant detectives who use their amazing senses with a wide range of investigative skills, leading to 10-12 points/level.

Per shouldn't increase in cost because IQ did. The arrow points in the *other* direction: If +1 to Per gets more costly, add the same number of points to the cost of +1 to IQ.

> *What we obtain too cheap,*
> *we esteem too lightly.*
>
> *– Thomas Paine,*
> ***The American Crisis***

More Expensive Fatigue Points

Increasing the point cost of FP only because HT has been made more expensive isn't recommended. If FP get pricier, that should usually be because they're more valuable *in their own right*.

This is most likely in campaigns that offer many superhuman abilities that burn FP. Cinematic martial-arts skills, Enthrallment skills (pp. B191-192), Imbuement Skills (***GURPS Power-Ups 1: Imbuements***), and powers constructed to use FP are possibilities, but magic that consumes FP is the most common reason for this. In the standard magic system (pp. B234-253), the FP costs of spells are the primary control on their use, by far more influential than point costs or casting times.

After special abilities come optional rules that make FP valuable. The best examples are extra effort in combat (p. B357) and cinematic combat rules (like *TV Action Violence,* p. B417), both expanded in many places, notably ***GURPS Action 2: Exploits,*** pp. 37-38 and ***GURPS Martial Arts,*** pp. 131-132. In games that feature powers, there's also extra effort with those, plus temporary enhancements, using abilities at default, and further stunts defined in ***GURPS Powers*** – with *Godlike Extra Effort* (***Powers,*** p. 161) being *especially* powerful.

Less common than either of those things are campaigns that add many dangers that blow away FP, or games that aggressively track FP lost to ordinary hazards and exertion. In those, FP end up being as important as HP – even buffering HP loss to such troubles (see *Lost Fatigue Points,* p. B426) – and so merit a little cost increase, for much the same reason why *More Expensive Hit Points* (pp. 12-13) proposes adding 1 point/level to the cost of HP when they'll often be spent as FP.

Cheaper Fatigue Points (pp. 8-9) suggests subtracting 1 point/level per key element omitted, so it would be reasonable to *add* 1 point/level for each consideration above – superhuman abilities, optional rules, and unusually common attacks or perils – that's exceptionally important in the campaign. Some could be worth even more! Magic can get potent enough that +2 points/level is fair; in effect, this plus the built-in 1 point/level for "fuels special abilities" adds up to the 3 points/level for Energy Reserve (see ***GURPS Thaumatology,*** p. 50). Powers that justify +1 point/level because they consume FP and another +1 point/level for potent stunts may add a further +1 point/level for synergies between the two. And if FP-depleting attacks and aggressive FP tracking will both play major roles, they might be worth +1 point/level *each*.

Add up what really matters in the campaign to find a fair cost. In ***Dungeon Fantasy,*** where magic is extremely powerful (+2), extra effort is neither more nor less important than usual (no effect), magic and poison that sap FP are widespread (+1), but mundane FP aren't tracked rigorously (-1), 5 points/level might work. In a ***Supers*** game with every FP-draining ability under the sun (+1), expanded extra effort and stunts for powers (+1), synergies between the two (+1), lots of FP-draining attacks (+1), but no attention paid to realistic fatigue (-1), even *6* points/level could fit. Going beyond this – that is, doubling cost – isn't recommended.

Add increases to the price of FP to the price of HT. As HT borders on underpriced as is – largely because FP so often *are* ignored, or nearly so – it needs to be more expensive in campaigns where FP are derived from it and extremely valuable.

More Expensive Basic Speed

At 15 points/level, Enhanced Dodge already feels expensive next to Combat Reflexes (15 points for +1 to Dodge . . . *and* to Block and Parry, not to mention bonuses to many other things) – and that accounts for 3/4 of the price of Basic Speed. Basic Move rarely seems underpriced at 5 points/level, and often looks *overpriced* if air Move or Enhanced Move is available; that's the other 1/4 of the price tag. As neither aspect of Basic Speed shouts for a cost increase, the 20 points/level in the standard rules is probably fine "as is" for action-and-adventure campaigns, which is most of them.

Basic Speed also determines who acts first, and *that* can suggest a higher price. The standard rules consider this a zero-cost feature, and various supplements rate it at 1 point per +1.00 at most. In an "all combat, all the time" campaign where such a leveled perk is in use, the GM might mark up Basic Speed to 21 points/level so everyone pays for what they get – no free lunches. This fits the most violent ***Action, Dungeon Fantasy, Gun Fu,*** and ***Martial Arts*** games, though most are so high-powered that nobody would care about an extra point!

Cheaper Basic Speed (pp. 9-10) notes that acting first can be worth up to *5* points/level if the campaign assumptions make the first strike decisive and perhaps the only attack that matters. This is often true in game worlds with TL11^ or TL12^ weaponry from ***GURPS Ultra-Tech;*** the trigger of a graviton, disintegrator, displacer, or death-beam weapon, or anything that lobs a mininuke, micro-antimatter, stasis, or vortex warhead, is an "I win!" button. Some high-powered ***Supers*** games (which doesn't always mean capes and code names – extreme psionics are fight-stoppers) are functionally no different. In those cases, it's fair to price Basic Speed as high as 25 points/level.

When otherwise using the standard rules, such increases should affect DX and HT pricing. It's up to the GM to distribute the extra point cost, but an even split is fairest. To avoid round-off issues, consider going with *24* points/level (making the cost for +0.25 to Basic Speed an even 6 points) and adding +1 point/level to DX and HT cost. Setting the price of DX or HT and scaling Basic Speed cost proportionally isn't recommended.

More Expensive Basic Move

As *Cheaper Basic Move* (p. 10) notes, Basic Move is probably fair at 5 points/level if it's important enough to keep in the game. Also discussed there is the difference between *tactical* and *logistical* movement, used on the battle map and for hiking, respectively.

Tactical movement is what justifies 5 points/level. It might even be overpriced, as its value is muted at higher encumbrance levels: Basic Move 1-9 all boil down to Move 1 at Extra-Heavy encumbrance, Basic Move 5-7 all give Move 2 at Heavy encumbrance, and so on. Marking up cost isn't advisable, *especially* in games where Flight is common and air Move is available for 2 points/level, as in ***Supers*** campaigns and those where players can buy templates for flying races (pixies, winged aliens, uplifted eagles, aircraft, etc.).

Still, enough Basic Move grants a step (p. B368) larger than one yard, which is a real game-changer in a campaign about warriors who run around at No or Low encumbrance (***Martial Arts*** comes to mind), as it enables a fighter to dance into and out of reach with impunity. Step distance increases by one yard per +10 to Move, and would be bought as something like "Basic Move +10 (Only for step, -80%) [10]" – that is, it's 1 point of the 5 points for +1 to Basic Move. Basic Move should cost more if the GM feels -80% is too generous: -70% gives 1.5 points/level, -60% gives 2 points/level, and -50% gives 2.5 points/level (actually *moving* should count for at least half the value!). Subtracting the usual 1 point/level gives an extra 0.5, 1, or 1.5 points/level. As Basic Move determines jumping distance, which is also important in such games, especially if the Flying Leap skill is used, round *up:* +1 or +2 points/level to Basic Move.

Travel is what makes the slightly high 5 points/level fair, not something that justifies an *extra* contribution. In a TL0 campaign where feet are the only transportation, though, it *might* be worth slightly more. Using logic similar to that above, decide what "Only for long-distance hiking" is worth and increase cost to match reduced limitation value; that probably means going from -80% to around -70% or -60%, so +1 point/level is the suggested ceiling.

Increases to Basic Move cost increase the cost per level of Basic Speed by the same amount, which in turn implies more expensive DX and HT.

Aesthetic Pricing

Alternate Attributes takes an analytical approach to pricing basic attributes and secondary characteristics, but "look and feel" can matter as much as math and logic!

Pentaphilia. Or, "Love of the number 5." Will, Per, and Basic Move cost ±5 points/level; ST and HT, ±10 points/level; and DX, IQ, and Basic Speed, ±20 points/level. Many advantages and almost all disadvantages use multiples of 5 points, too. Most enhancements and limitations come in 5% chunks. All that is because many people find the math easier with fives and tens (blame it on five-fingered hands). If the rules recommend a cost like 6, 18, or 23 points/level, and that rubs you the wrong way, remember it's *your* game – round to the *nearest* multiple of 5 (that's unambiguous with an odd-numbered interval like 5) to get 5, 20, or 25 points/level.

Symmetry. Many gamers like how ST costs the same as HT, DX as IQ, Will as Per, and so on. Some would prefer ST, DX, IQ, *and* HT to cost the same (as in previous editions of ***GURPS***). A love of symmetry is another human quirk, and we'd be lying if we claimed nothing in the ***Basic Set*** was priced for that reason. If you want the values of two traits to be identical "just because" – again, it's *your* game!

Fortunate Sums. Some people are attached to the way things add up. Buying +1 to all of ST, DX, IQ, and HT costs 60 points under the standard rules. There are doubtless people who would like *revised* attribute costs to total 60 points, too – and others who'd prefer 50, or 100. Feel free to fine-tune pricing to get the sum you like. The simplest method is to divide the difference from your target by the number of attributes and apply the same adjustment to each score. If you can't do so evenly, tweak the cost(s) you feel happiest changing.

If aesthetic changes undo your efforts to adjust costs to better suit your game, you can either stomach less-than-pretty numbers or make *further* corrections to get numbers you like better. If you lowered 20 to 18, going back to 20 would be counterproductive but 15 might be tolerable. If you raised DX to 25 points/level without changing IQ, maybe you can keep the new price of DX and justify IQ at 25 points/level, too. If +1 to four attributes adds up to 64 points and -1 point/level apiece would break what you just fixed, consider making something you've already reduced in cost even cheaper.

Finally, be aware that aesthetically pleasing basic attribute costs might require changes to secondary characteristics, or vice versa, so that everything adds up. You may have to accept *some* ugly numbers if making the math work out is also important to you!

Chapter Two
Changing the Game

There are games – and doubtless, gamers – that have issues with how ***GURPS*** defines a character's most fundamental traits. When the impasse is the interaction between or *the very existence of* certain traits, or the absence of those that seem crucial, playing around with basic attribute and secondary characteristic costs isn't the solution (at least, not the whole solution!).

Reformulating Secondary Characteristics

The problem might not be with the standard set of basic attributes and secondary characteristics, but rather with how the latter are derived from the former. Or perhaps an attribute was eliminated (*Doing Away with Attributes,* pp. 37-40), meaning the characteristics calculated from it need rethinking. Or maybe a *new* attribute (*Adding Attributes,* pp. 23-36) would make sense as the basis for an existing characteristic. In all cases, the solution is to change the formula!

These guidelines address the *standard* secondary characteristics. Adding new ones is the subject of *Adding Attributes.*

Hit Points Reformulated

The logic behind **HP = ST** is sound: Natural creatures absorb damage at a level tied to how well they inflict it with their ST-based attacks, and can therefore battle their peers for food, mates, or territory without the first solid hit winning the fight – possibly with a kill. At *all* ST values, average damage is too low to guarantee a major wound against a rival with the same ST and HP; at ST 15+, the numbers are stable at *roughly* three blows to pose the risk of a knockout, and while the variation is greater at lower ST, it's in the direction of battles lasting longer, not being settled by the opening attack. Moreover, HP stand in for mass when factoring slam damage, which one expects to be tied to physical power (that is, ST).

Yet prior to ***GURPS*** *Fourth Edition,* the formula was **HP = HT.** Thus, HT controlled both how much injury someone could sustain *and* how likely they were to be able to soak that up and stay in the fight. That doesn't model nature as well as HP = ST, but it *does* have the convenience of tying survivability to a single stat. Before Fourth Edition, altering HP from their base was a highly optional rule, so this formula avoided puzzlers like, "What helps more in a fight: +1 to HT or +5 to HP?", by answering, "Raising HT boosts HP and HT rolls." Those who prefer that approach are welcome to revert to it!

Without new attributes, other potential formulas are more complicated ones involving ST and HT, as it's hard to see basing HP on DX or IQ!

Adjusting Attribute Value Without Changing Cost

Reformulating Secondary Characteristics (above) states an important principle many times in passing. It's useful enough to mention yet again in explicit terms:

If a basic attribute seems **overpriced,** one way to solve the problem without lowering its cost is to reformulate a secondary characteristic that wasn't formerly derived from it to depend on it, making it *more valuable* for the points. Likewise, if a basic attribute seems **underpriced,** one way to deal with that without raising its cost is to reformulate a secondary characteristic that used to be calculated from it to no longer depend on it, making it *less valuable* for the points.

This lets reformulation do double duty: It changes a secondary characteristic to depend on things that make more sense for the campaign *and* makes a basic attribute seem fairer for its cost without resorting to the measures in Chapter 1.

Tying HP to other mathematical powers of ST changes the number of solid blows needed for a muscle-powered knockout on someone of comparable ST; e.g., **HP = (ST × ST)/10, rounded up,** places it at "about five or six hits" in the human ST range, and makes it somewhat easier for tiny creatures (especially below ST 7) to end fights without dozens of blows. Such changes aren't advised because they force *a total rescaling of all non-ST-based damage.* Making HP depend on ST *and* HT – as in **HP = (ST + HT)/2, rounded down** – delivers neither the logic of HP = ST nor the convenience of HP = HT, and also isn't recommended.

When shifting HP from ST to HT, adjust attribute prices accordingly. If the only change is what HP depend on, ST should be 2 points cheaper per level while HT should be 2 points more costly. This change often accompanies ST-based FP (see *Fatigue Points Reformulated,* p. 18), in which case ST gets 1 point more expensive while HT gets 1 point cheaper. That said, if the attribute that *should* get cheaper or more expensive is, in the GM's opinion, under- or overpriced, leaving its cost alone offers a way to rectify that.

Will Reformulated

Though **Will = IQ** won't satisfy everyone, it's hard to imagine a better base for Will without *Adding Attributes* (pp. 23-36). It may tempt some GMs to declare that all "grit" is a question of HT and then posit a formula that implicates HT instead of IQ (**Will = HT**) or as well as it (for instance, **Will = (IQ + HT)/2, rounded down**), but that blurs mental and physical resistance, and is *strongly* discouraged. It means revisiting spells, powers, and even a lot of gear – across dozens of game supplements – to see if hostile effects are still balanced at their current character-point and cash costs when HT is a one-stop shop for resistance.

On the other hand, it's fair to ask how much willpower has to do with being good at brainy skills – that is, with IQ. *Independent Will* (p. 21) is the simplest way to go here, but it isn't *too* complicated to use a formula like **Will = (IQ + 10)/2, (IQ + 20)/3, or (IQ + 30)/4, rounded down.** Such math pulls Will closer to 10. For beings with IQ in the 1-20 range:

IQ	*(IQ + 10)/2*	*(IQ + 20)/3*	*(IQ + 30)/4*
1	5	7	7
2	6	7	8
3	6	7	8
4	7	8	8
5	7	8	8
6	8	8	9
7	8	9	9
8	9	9	9
9	9	9	9
10	10	10	10
11	10	10	10
12	11	10	10
13	11	11	10
14	12	11	11
15	12	11	11
16	13	12	11
17	13	12	11
18	14	12	12
19	14	13	12
20	15	13	12

This has the positive side effect of reducing the large racial Will modifiers that beings less intelligent than humans need in order to have sensible scores. That reduces the cost of racial templates for ordinary beasts with IQ 2-5 and Will 10-12, and thus the price of many common Allies and Alternate Forms.

If using such a formula while keeping Will at 5 points/level, the contribution of Will to IQ is smaller. In the examples above, Will contributes 1/2, 1/3, or 1/4 as much – or 2.5, 1.7, or 1.25 points – per level. However, if IQ seems like too good a deal (see *More Expensive IQ,* p. 12), its price needn't drop; leaving IQ at 20 points/level even though it contributes less to Will might be a way to balance the game without changing attribute pricing.

If it's Will that seems underpriced (see *More Expensive Will,* p. 13), such a formula can bring *it* under control without altering the price of IQ. For example, if Will feels like it should cost 10 points/level, using Will = (IQ + 10)/2 lets Will continue to contribute 5 points/level to IQ, and having enough Will to be functionally immune to Fright Checks, mind control, etc. gets costly; even mighty IQ 15 wizards and psis get only Will 12, and must pay 10 points to "max out" *The Rule of 14* (p. B360) and 40 points to exploit *The Rule of 16* (p. B349), where formerly the first was automatic and the second cost just 5 points. If Will is 15 points/level, Will = (IQ + 20)/3 lets Will contribute 5 points/level to IQ – but now IQ 15 characters get only Will 11 and must pay 30 and 75 points to push the limits of the Rules of 14 and 16. The Rule of 14 might not even be necessary if Will works this way – one less thing to remember!

The formula "Two and two make five" is not without its attractions.
– Fyodor Dostoevsky

Perception Reformulated

Many gamers have difficulty with **Per = IQ,** too. Unlike for Will, a formula like **Per = (IQ + HT)/2, rounded down,** is defensible: HT rates the *physical* condition of the sense organs (eyes, ears, nose, etc.), while IQ stands in for the *mental* ability to process sensory input. This won't seem as logical if the campaign features numerous mystical senses with mental or spiritual explanations, but those can be redefined to rely on IQ (see *Reassigning Advantages and Disadvantages,* p. 42) or a new attribute that governs the paranormal (see *Adding Attributes,* pp. 23-36).

When using (IQ + HT)/2, if Per is still 5 points/level, it contributes 2.5 points/level to IQ and to HT, which should lower the cost of IQ by 2 or 3 points/level (GM's decision) while raising the cost of HT by the remaining 3 or 2 points/level. That is, unless IQ feels underpriced (a commonly held opinion; see *More Expensive IQ,* p. 12) and/or HT seems overpriced (rarer; see *Cheaper HT,* p. 7). In those cases, the attribute can keep its price and the revised Per formula can be seen as a "correction." It's absolutely fine to change one cost but not the other; the most probable scenario is IQ remaining at 20 points/level despite the smaller contribution from Per, while HT becomes 2 or 3 points/level more expensive.

Going to **Per = HT** might be justifiable. Animals without the benefits of technology or complex society *are* naturally selected for both health and their ability to avoid danger, and while that hardly means the two are linked, tying them into a package may be good enough for gaming. The above discussion applies, but now the cost of IQ *might* drop by as much as 5 points/level while that of HT should almost certainly increase by the same amount.

Just as speculatively, **Per = DX** may make sense if the capacity to process incoming information (Per) is symmetric with the capacity to react to it (DX). In that case, the cost of IQ might against drop by as much as 5 points/level, but now it's the cost of *DX* that ought to increase by the same amount. See *OODA* (p. 19) for a different way to link Per to physical reactions.

If neither HT nor DX seems to fit, yet another method of weakening the influence of IQ on Per without resorting to *Independent Perception* (p. 21) is to use a formula like **Per = (IQ + 10)/2, (IQ + 20)/3, or (IQ + 30)/4, rounded down;** see *Will Reformulated* (p. 17) for the mathematical effects. If using such a formula while retaining 5 points/level as the price of Per, Per might contribute less to IQ – again, as discussed for Will. But as mentioned for formulas that involve HT, the price of IQ needn't drop if it seems overly generous. If *Per* is what seems underpriced (*More Expensive Perception,* pp. 13-14), such a formula can correct that problem without changing IQ pricing; e.g., adopting Per = (IQ + 10)/2 while charging 10 points/level for Per means Per still contributes 5 points/level to IQ but high-IQ heroes don't start with astronomical Per and need to pay more to have it.

Using any of the above methods reduces the size of the racial Per modifiers given to animals, who often have IQ 2-5 but Per 11+. The resulting reduction in the cost of racial templates benefits those buying ordinary beasts as Allies or Alternate Forms, which often seem overpriced.

> *I have no satisfaction in formulas unless I feel their arithmetical magnitude.*
>
> *– Lord Kelvin*

Fatigue Points Reformulated

In the standard rules, **FP = HT.** This follows from the *definition* of HT on p. B15: HT "measures energy and vitality" and "represents stamina." It would be possible to replace FP with HT rolls for feats of endurance – modified for how draining the deeds are and the number attempted recently – to avoid negative effects similar to those of afflictions and injury. All that dice-rolling and record-keeping would be no more convenient than marking off FP, though!

In earlier editions of ***GURPS,*** the formula was **FP = ST** for largely historical reasons: ***GURPS*** was heavily influenced by ***The Fantasy Trip,*** which had only ST, DX, and IQ – and ST made the most sense as the score to reduce when burning energy for things like spellcasting. Yet prior to ***GURPS*** *Fourth Edition,* because buying FP separately from ST was considered optional, fatigue usually depleted ST directly, weakening the character much as when they have less than 1/3 of their FP left in Fourth Edition (p. B426), so it wasn't totally unrealistic – it just had unrealistic implications like tiny (low-ST) creatures tiring quickly while huge (high-ST) ones lasted forever, and like muscle (ST) rather than fitness (HT) benefiting endurance, leading to wizards who could outwrestle warriors. If those warts don't bother you, go right ahead!

Shifting FP from HT to ST implies adjusting attribute prices. If you do this while keeping HP with ST, ST should grow 3 points more expensive per level while HT gets 3 points cheaper. But this usually goes with HT-based HP (see *Hit Points Reformulated,* pp. 16-17), in which case ST becomes 1 point more costly while HT is 1 point cheaper. As always, the GM never *has* to change the attribute cost if it already seems too high or low.

Making FP depend on ST *and* HT – as in **FP = (ST + HT)/2, rounded down** – is somewhat more reasonable here than for *Hit Points Reformulated.* That's because in many campaigns, FP serve as an artificial resource for powering special abilities, so they can be based on almost anything. And there's some appeal to big, strong people containing a *bit* more "life energy." At 3 points/level for FP, this theoretically raises the cost of ST by 1.5 points/level and reduces that of HT by the same amount, with the GM rounding in any way desired – or ignoring it to "fix" an over- or underpriced attribute.

Stranger formulas are possible, like **FP = (ST × HT)/10, rounded up,** although this makes setting fair price contributions to ST and HT a headache! Indeed, in a campaign that uses FP strictly to fuel IQ- and/or Will-based abilities such as spells or psionics, **FP = IQ** or **FP = Will** might make sense. In that case, IQ or Will both boosts success rolls with remarkable capabilities and allows those things to be used more often, and the 3 points/level should *definitely* increase the cost of IQ or Will. *Independent Fatigue Points* (pp. 22-23) is often preferable in this situation.

Basic Speed Reformulated

Basic Speed = (DX + HT)/4 is a relic of ***GURPS'*** beginnings in ***Man to Man,*** whose rules proclaimed, "Your Basic Speed score is figured from your HT and DX attributes, and shows how fast you can run without encumbrance." Combatants took turns in order of descending Move (*not* Speed), and Dodge equaled Move. The Running skill, based on HT even then, granted a bonus to Basic Speed for every one of these purposes. As Basic Speed was all about Move, tying it to factors vital to running – agility (DX) and fitness (HT) – made sense.

Fourth Edition still calculates Move from Basic Speed, by way of Basic Move, but it quietly associates 3/4 of Basic Speed's point cost with Dodge. It also uses Basic Speed – not Move – in the turn sequence (p. B363). Thus, Basic Speed mainly measures reflexes. Its HT dependence is tricky to justify, and remains only because Basic Move is figured from Basic Speed; HT is a poor fit to what Basic Speed does *in its own right.*

Below are a few of the many possible ways to reformulate Basic Speed to remove HT dependence without invoking *Independent Basic Speed* (p. 23). As in the standard rules, don't round off! In all cases, the price of HT should drop by 5 points/level . . . unless the GM decides against that because HT seems underpriced.

It's All In The Reflexes. That is, **Basic Speed = DX/2.** Dexterity *already* settles the turn sequence when Basic Speeds are tied, so elevating it to the primary determiner isn't a reach. Combat skill is DX-based, and Block and Parry are 3 + (combat skill/2), so these depend on DX/2; as Dodge = Basic Speed + 3, this reformulation means Dodge depends on DX/2, too, which is nicely symmetric. The downside is that DX is the "master combat attribute" even more than before; thus, it's prudent to keep the price of Basic Speed at 20 points/level, putting its contribution to DX at 10 instead of 5 points/level and increasing the price of DX by 5 points/level. Alternatively, dilute the importance of DX with **Basic Speed = (DX + 10)/4** and leave DX's price tag alone. If you're comfortable dealing with Basic Speed in chunks of 0.10 instead of 0.25, then there's also **Basic Speed = 3 + DX/5** or **Basic Speed = 4 + DX/10;** Basic Speed contributes, respectively, 4 or 2 points/level to DX instead of 5 points/level (lowering DX's price), and Basic Speed costs 2 points per +0.10.

OODA. Reflexes are at least in part mental. In ***GURPS***-speak, hand-eye coordination would be DX-Per coordination, and military research talks of "observe-orient-decide-act loops" ("OODA loops"), which concern how decisions – often high-level ones – involve watching conditions change in real time, acting swiftly in response, and taking stock of the results. That suggests **Basic Speed = (DX + Per)/4**, which doesn't affect the price of DX but adds 5 points/level to that of Per. If Per remains IQ-based, that *also* increases the price of IQ. This formulation suits campaigns where psis or wizards with high IQ, and hence Per, are meant to be competitive with warriors; it also grants animals sensible scores. It *might* be the best option everywhere!

I Can Kill You with My Brain. Fiction makes a big deal out of the "speed of thought," especially as pertains to psionics and natural-born strategists. Using **Basic Speed = (DX + IQ)/4** works as well as Basic Speed = (DX + Per)/4 for sapient characters; that doesn't alter the price of DX, but adds 5 points/level to that of IQ. **Basic Speed = Per/2** or **Basic Speed = IQ/2** is harder to swallow, as either makes being brainy essential to ducking blows and renders DX, which governs reflex-intensive tasks like fighting and driving, irrelevant to reaction time; these should reduce the price of DX by 5 points/level and raise that of Per or IQ by 10 points/level. As with purely DX-based formulas, watering these down might be wise; **Basic Speed = (Per + 10)/4, Basic Speed = 3 + Per/5,** or **Basic Speed = 4 + Per/10** adds 5, 4, or 2 points/level, respectively, to Per cost, while **Basic Speed = (IQ + 10)/4, Basic Speed = 3 + IQ/5,** or **Basic Speed = 4 + IQ/10** adds the same to IQ cost. In general, Per-based formulas are preferable to IQ-based ones, as they don't necessitate racial Basic Speed bonuses for low-IQ animals. In all cases, if Per remains IQ-based, raising its price *also* raises that of IQ.

When Basic Speed is strictly about reaction time like this, determining Basic Move independently of it is *strongly* recommended; see *Basic Move Reformulated* (below) and *Independent Basic Move* (p. 23). In theory, that should reduce Basic Speed's cost by 5 points/level, but that usually means Basic Speed contributes a fractional cost per level to DX, Per, or IQ, generating the need for a round-off. Formulas like 3 + DX/5, 3 + Per/5, and 3 + IQ/5 are exceptions; at 15 points/level for Basic Speed, they add a round 3 points/level contribution to attribute cost. Basic Speed is useful, though – there's no harm in ruling it costs 20 points/level regardless, especially in campaigns where acting first is crucial (see *More Expensive Basic Speed,* pp. 14-15).

Fancy Formulas

If you want *several* attributes to determine a secondary characteristic, go for it! If the math doesn't faze you, you can even weight the attributes differently. For example, if ST *mostly* determines HP, but HT has a minor impact, you might decide HP = (ST + ST + HT)/3. Weight point-cost contributions similarly; in that example, if HP cost 2 points/level, HP contribute 1.3 points/level to ST (lowering ST cost by 0.7 point/level) and 0.7 point/level to HT (raising HT cost by 0.7 point/level). For Basic Speed, remember to rescale! For instance, if Basic Speed depends on DX and Per, but DX is twice as important, start with (DX + DX + Per) and divide by 6 so that DX 10, Per 10 gives Basic Speed 5.00 – i.e., Basic Speed = (2×DX + Per)/6.

Basic Move Reformulated

As *Basic Speed Reformulated* (pp. 18-19) explains, **Basic Move = Basic Speed, drop fractions** is a historical accident: Earlier editions of ***GURPS*** – and its precursor, ***Man to Man*** – interpreted Basic Speed as running speed, which incidentally determined Dodge and the turn sequence. Fourth Edition kept Basic Speed as the basis for all this; what it added was the option to adjust ground speed from that starting point, naming it "Basic Move" (giving characters who adjusted it something to refer to) and dropping fractions (to avoid the fuss of fractional Move).

Yet it doesn't make much sense for ground speed to be related to reflexes. In nature, the former is often a function of leg or stride length, metabolic rate, or number of legs; the latter, of the lengths of neural pathways. These qualities are sometimes directly opposed! Setting that aside, there's no accepted correlation between being a competition sprinter and a fencing or karate champ. *Independent Basic Move* (p. 23) offers a solution – perhaps the most realistic one, given how body size, proportions, and morphology are more crucial than anything attributes measure – but the GM may prefer *some* attribute dependence to help heroes stand out.

For pricing purposes, the options that follow assume Basic Move is unrelated to Basic Speed – even if it uses an identical formula – so Basic Speed *may* become 5 points/level cheaper if the GM doesn't think it's still worth 20 points/level. Evaluate Basic Move's contributions to basic attribute and secondary characteristic costs alongside those from Basic Speed: Add up what Basic Speed *and* Basic Move contribute to each statistic, and if that's more or less than what Basic Speed contributes in the ***Basic Set*** (5 points/level to DX and HT, 0 points/level to everything else), you might want to raise or lower that stat's price; e.g., if Basic Speed = (DX + Per)/4 and costs 20 points/level, and Basic Move = (DX + HT)/4 and costs 5 points/level, these contribute 6.25 points/level to DX (+1.25 points/level), 1.25 points/level to HT (-3.75 points/level), and 5 points/level to Per (+5 points/level).

One option is **Basic Move = (DX + HT)/4, drop fractions.** Having agility and fitness matter makes sense for Basic Move in a way that it doesn't for Basic Speed. It may even be realistic! Established ***GURPS*** players will appreciate that it deviates the least from the standard rules.

Basic Move = HT/2, drop fractions bases ground speed on fitness. That's *possibly* more realistic than (DX + HT)/4; in humans, the ability to run fast seems to be strongly correlated with cardiovascular health. It also means everything to do with foot travel depends on HT, as Hiking and Running are based on it – some gamers may see that as elegant.

Going the other way, **Basic Move = DX/2, drop fractions** makes ground speed a matter of agility. That's how action fiction works: A gift for shooting or kung fu (Guns and Karate, based on DX) means being more mobile in battle It makes DX *worse* as a "god stat" for combat, so round any added contribution to DX cost *up*.

As with other secondary characteristics, there's the option of weighting values toward the human average (5) using formulas that are less sensitive to attributes:

- **Basic Move = (HT + 10)/4** (contributes 1.25 points/level to HT).
- **Basic Move = 3 + HT/5** (contributes 1 point/level to HT).
- **Basic Move = 4 + HT/10** (contributes 0.5 point/level to HT).
- **Basic Move = (DX + 10)/4** (contributes 1.25 points/level to DX).
- **Basic Move = 3 + DX/5** (contributes 1 point/level to DX).
- **Basic Move = 4 + DX/10** (contributes 0.5 point/level to DX).

And so on. In all cases, drop fractions in the formula.

Independent Secondary Characteristics

The extreme limit of reformulating a secondary characteristic is to decide that *there is no formula:* It doesn't depend on attributes! Every character starts with the human norm for free, and may adjust the value up or down from that using points. In effect, the trait is "promoted" to full attribute status, increasing the number of attributes without adding a new statistic to the game (compare *Adding Attributes,* pp. 23-36).

Per *Adjusting Attribute Value Without Changing Cost* (p. 16), declaring a secondary characteristic independent doesn't necessarily mean the attributes that formerly factored into it become cheaper. If the GM doubts the attribute remains worth its cost in the ***Basic Set,*** a price cut is fair. If it seems underpriced under the standard rules, however, that's unnecessary. (But be ready for *players* complaining about losing the cheap boost from an underpriced attribute!)

The price of an independent secondary characteristic is also left to the GM. Using the standard price is simplest. Still, if the campaign's starting character points won't change and must be spread further – or if attributes are no cheaper despite no longer boosting secondary characteristics – it might be fairer to mark down the cost.

It's all linked! As a guideline: When making a secondary characteristic independent, mark down *either* it *or* its former controlling attributes at least a little (although the total change needn't be zero). You could mark down both slightly less than you'd mark down just one or just the other, but it's less complicated if at least one score keeps its old price. Alternatively, retain the standard price of everything and give out more starting points; see *The Question of Point Budget* (pp. 45-47).

Independent Hit Points

Starts at 10

Deciding that HP start at 10 for everyone and everything has some major downsides! For one thing, every racial template for anything much bigger or smaller than a human then requires a racial HP modifier – unless you *believe* that ST 4 housecats and ST 45 elephants (and individual ants, and 60-kiloton battleships) should have HP 10. For another, it takes away an edge that brawny warriors probably *ought to* have over scrawny non-warriors in an area where the "combatant versus noncombatant" distinction matters: surviving violence.

Yet there are upsides: Things with ST 0, like every last machine without a motor and countless unnatural entities (slimes, beings of air or fire, many insubstantial spirits, etc.) *won't* need a racial HP modifier to have HP. As well, if the GM enforces the standard rule that HP cannot vary by more than ±30% from baseline for realistic beings (meaning HP 7-13 for HP 10 humans and their ilk), it's *far* easier to gauge what's a "lethal dose," "killing blow," and so on, as there won't be mighty-thewed barbarians stomping around with HP 26.

In a campaign where the only characters built on points – and hence requiring racial templates – are human (or close enough), independent HP might just work, as the change won't introduce extra math. Whether it's actually *superior* to ST-based HP depends on other considerations.

If the fragility of life is a theme, as it often is in ***Horror*** and darker ***Mysteries*** games, having offensive tackles with ST 18 be as mortal as prom queens with ST 8 is a feature; if the focus is all fighting, all the time, as in most ***Action*** and ***Martial Arts*** campaigns, it's a bug.

A special case bears mention: Games where HP are calculated from *weight* as 2×, 4×, or 8× the cube root of weight in pounds for beings in the living, Unliving/machine, and Homogenous/Diffuse categories, respectively. If ST is a function of what proportion of a living being's mass is muscle, how powerful a vehicle's motors are, or whatever, it may not end up close to HP. In that case, starting from HP 10 removes a misleading bias, and you *might as well* do that, because most things have HP different from ST anyway. This results in all 150-lb. humans having the same HP, all 1.8-ton sports cars having the same HP, and so on, which can feel more realistic. Actual realism depends on how you assess ST – real-world lifting and hauling capacity is one thing, "I want to swing a bigger axe!" is another. You could always leave HP equal to ST and calculate *ST* from weight instead!

A parting shot: In some campaigns, HP are more an expendable resource – like FP – than anything else. Some of the arguments in *Independent Fatigue Points* (pp. 22-23) may also be relevant there.

Independent Will

Starts at 10

I am a free human being with an independent will.
– Charlotte Brontë, ***Jane Eyre***

Most of *Will Reformulated* (p. 17) tackles the question "What does willpower have to do with being brainy?" – that is, "Why should Will depend on IQ?" However you phrase it, it's fair. The world is full of geniuses who can write software or build a nuclear bomb from scratch, but fall for Internet scams and startle if you slam the door. For that matter, plenty of idiots who are incapable of *using* logic are immune to persuasion based on it (good luck attempting Diplomacy!), not to mention out-and-out intimidation. Then there are animals famous for being obstinate despite having less than IQ 6; *some* might have Stubbornness, but not all. Making Will independent solves all these problems without fussy math.

In *any* campaign that uses independent Will, those happy to leave Will at 10 – which is a lot of characters – don't have to fuss with adjusting their score. High-IQ individuals needn't use up their disadvantage limit (p. B11) "selling back" undesired Will. And racial templates for nonsapient beings, like all natural animals, don't require racial Will bonuses to be able to stand up to intimidating rivals or, in fantasy, magic spells.

Independent Will is especially useful in campaigns where Will is more valuable than usual (*More Expensive Will,* p. 13), as the high cost of Will tends to amplify the above issues. Using independent Will with the standard 5 points/level for Will and 20 points/level for IQ is effectively identical to retaining IQ-based Will with 10 points/level for Will and 25 points/level for IQ – each +1 to IQ *and* Will is 25 points – but with the benefit of no unfamiliar costs that might trip up players. Charging 6-9 points/level for independent Will and 20 points/level for IQ isn't much different from charging 11-14 points/level for IQ-based Will and 26-29 points/level for IQ.

Once Will becomes independent of IQ, it might become more attractive for other uses – say, *Hit Points Reformulated* (pp. 16-17) and *Fatigue Points Reformulated* (p. 18). Realistic or not, it's *dramatic* to decide that "the will to live" justifies something like HP = (ST + Will)/2, or that "drive" rationalizes FP = (HT + Will)/2. The point cost of characteristics derived from Will should influence that of independent Will in such cases, and Will may absorb some of the price of other scores; e.g., if you were thinking of ST, HP, and Will at the standard prices, but HP = (ST + Will)/2, Will is probably fairer at *6* points/level and ST at *9* points/level.

Independent Perception

Starts at 10

Perception Reformulated (pp. 17-18) points out that Per's dependence on IQ isn't the most believable thing ever. This is most obvious for animals – all of which end up with large racial Per bonuses – but it's also true of people. Fiction is full of oblivious geniuses, and not-so-clever guards who are nonetheless challenging to sneak past. While those last two examples might not be *as* realistic as IQ 4, Per 14 wolves, stereotypes have some basis in reality. Independent Per offers a simple solution.

As with *Independent Will* (above), a basic benefit is that gamers are free to choose IQ without having to adjust Per; in particular, IQ increases don't lead to Per reductions that cut into the disadvantage limit (p. B11), if any. As just noted, racial templates for beasts don't require excessive racial Per bonuses to enjoy senses that are *at least* as sharp as those of humans; they may still need Per+1 to Per+4, but racial cost won't be as inflated. And in campaigns where Per is crucial (see *More Expensive Perception,* pp. 13-14), using independent Per with the standard 5 points/level for Per and 20 points/level for IQ is just like retaining IQ-based Per with 10 points/level for Per and 25 points/level for IQ, but with the benefit that the costs remain familiar.

Independent Per is more suitable for use with *Basic Speed Reformulated* (pp. 18-19), as there's no weirdness with brains (IQ) affecting who acts first and how well you dodge. In that case, the cost of Basic Speed should have some effect on that of independent Per, which might reduce the cost of *other* stats; e.g., if planning on DX, HT, Per, and Basic Speed at the standard prices, Basic Speed = (DX + Per)/4 suggests Per may be fairer at *10* points/level, though whether HT should go to 5 points/level is another matter, as it's somewhat underpriced (see *More Expensive HT,* p. 12).

Yet another thing to consider for independent Per – particularly if it costs more than 5 points/level – is basing more skills on it. Many skills feel like they "should" benefit from awareness: Criminology (searching for clues), Diagnosis (observing symptoms), Forward Observer (spotting targets), Shadowing, etc. If high IQ doesn't automatically give high Per and hence high levels with such skills, and especially if Per doesn't act like a cheap Talent for those skills, reassigning them to Per can help distinguish between character archetypes like "intelligence-gatherer" vs. "strategist" or "analyst," and can keep brainy scientists and wizards from being better spies and thieves than *actual* spies and thieves. This improves nearly *any* kind of campaign.

Independent Fatigue Points

Starts at 10

Fatigue Points *seem* to represent something realistic, plausibly calculated from HT . . . until you realize that they're depleted by physical exertion (digging, fighting, hiking, lifting, etc.), adrenaline-fueled frenzy (extra effort and several cinematic combat rules), terror (a few Fright Check results), starvation, dehydration, missed sleep, hypothermia, *hyper*thermia, suffocation, disease, and poison. Not all of those things sap the same kind of stamina, and many don't seem like matters that being healthy would affect, especially those that aren't completely physical – most people associate pushing your limits or not collapsing in fear with willpower rather than fitness. Then there are supernatural abilities (especially magic spells), which are neither real nor physical.

In fact, FP are an abstraction of every flavor of physical, psychological, and mystical energy. As *Independent Will* (p. 21) notes, there's a case for FP = (HT + Will). But in a campaign where their most important use is to energize superhuman feats, it may be most satisfactory to unlink FP from HT and every other attribute.

This has no real downside! With the standard rule that FP start equal to HT and must fall within ±30% of HT, if we posit that the animals in ***Campaigns*** represent the natural world well with their HT 10-14, the "believable" range for FP ends up being, say, 7-18. That's much tighter than the "anything larger than 0" necessary to encompass the HP of beings of arbitrary mass and size in even the most realistic games. If FP start at 10, few creatures need racial FP modifiers to stay realistic.

There are several upsides. Per *More Expensive HT* (p. 12), +1 to HT can be treated as +1 FP (3 points), +0.25 to Basic Speed (5 points), +1 to HT-based skills (1-2 points), and +1 to HT rolls (3-4 points), suggesting HT should cost 12-14 points/level; removing FP gives 9-11 points/level, making HT at the standard 10 points/level a better fit. Those rules suggest this pricing for campaigns where FP aren't very important – but it suits *all* campaigns that use independent FP. When FP aren't tracked faithfully and don't matter, almost everyone can leave FP at 10 with few consequences. When FP are crucial, as in campaigns with superhuman abilities, independent FP correct HT pricing and mean psis, wizards, and the like aren't encouraged to be super-fit; while they needn't all be fragile and pale, those who want to be vigorous will raise HT for that reason, not to get more energy for powers or spells.

Setting Limits

Changing secondary characteristic limits – and for that matter basic attribute limits – falls loosely under the definition of "alternate attributes" even when using the standard stats, prices, and formulas in the ***Basic Set*** rather than ideas from ***Alternate Attributes.*** In general, no special advice is needed beyond the usual "The GM decides." But when *Reformulating Secondary Characteristics* (pp. 16-23) – and especially when using *Independent Secondary Characteristics* (pp. 20-23) – it's wise to ask, "What are *reasonable* limits on secondary characteristics?" Here are some recommendations.

HP: For realistic humans, the range is within ±30% of ST. When reformulating HP, use ±30% of the new formula. When using independent HP, it's harder to judge what's best: ±30% of 10 (HP 7-13), of typical human ST 8-12 (HP 5-15), of possible human ST 1-20 (HP 1-26), or something else? It's the GM's call, but the same range used for the ST allowed to adventurers – say, 8-20 – is reasonable. Alternatively, individual ST may establish the *bounds* on HP but not the *value,* so ST 7 people can have HP 4-9 while ST 18 people can have HP 12-23, but both start at HP 10; if 10 falls outside the range, extend the range to it (e.g., HP 4-*10* and *10*-23 in those examples). If calculating HP from weight, use ±30% of that value and extend the range to 10.

Will: The standard "You cannot raise Will past 20, or lower it by more than 4, without GM permission" remains worthy. Independent Will (21) fixes that range at 6-20.

Perception: The advice for Will is equally valid here!

FP: Much of the advice for HP holds; just replace "ST" with "HT" and "HP" with "FP" in that discussion. Reformulated FP must fall within ±30% of their figured value, while independent FP in the 8-20 range are fair – although the GM may prefer to have individual HT establish the bounds but not the value of FP, and extend the range to 10. The notes on weight won't apply! If independent FP are mostly an energy pool for special abilities, the GM can set the upper limit by considering what feats suit the campaign; e.g., to see powerful wizards but not routine Instant Restoration and two-point Bless spells, set it above 20 but below 50.

Basic Speed: For realistic humans, the range is within ±2.00 of its calculated value. When Basic Speed is reformulated, the new base ±2.00 is fine. When it's independent, there might be nothing wrong with applying the ±2.00 to the starting 5.00 and calling the range 3.00 to 7.00. Still, this excludes the scores gamers are accustomed to for capable warriors, so since Basic Speed values are half as big as attribute values, it's fair to say that if adventurers can have attributes up to 20, Basic Speed can go up to 10.00.

Basic Move: For realistic humans, the range is within ±3 of Basic Speed. When reformulating Basic Move, the new range is within ±3 of what the formula gives. For limits on independent Basic Move, applying ±3 to the starting 5 to get a range of 2 to 8 is a good start. The world is full of mobility disorders that don't have specific disadvantages to cover them, so a lower bound of 1 is reasonable. In the other direction, the GM could research human land-speed records (Basic Move 11 allows Usain Bolt-level sprints), or follow the suggestion for Basic Speed and choose 10.

In short, using independent FP makes *any* campaign work better. The recommended pricing is 3 points/level. If supernatural energy is *incredibly* potent, FP can rise to 4, 5, or more points/level. In games that barely care about FP losses, 2 or even 1 point/level may work. In all cases, leaving HT at 10 points/level is fair – removing FP from HT, not repricing FP, is what justifies that price.

Independent Basic Speed

Starts at 5.00

Basic Speed is a trait that everybody feels is based on *something,* just not the *same* thing. Removing all connections to other scores means agility – physical (DX) or mental (IQ, on its own or via Per) – has no effect on reaction time, which seems unintuitive. It also means that many creatures require racial Basic Speed modifiers, unless you insist that cats (for instance) react no faster than humans.

Still, the GM may decide that a combat-heavy campaign where Dodge is essential, or an ultra-tech one where the first person to shoot a disintegrator wins, is more balanced if Basic Speed doesn't start high for those with good attributes – especially DX. In a highly abstract one that doesn't even *have* DX, say because everyone is an administrator and the "action" takes the form of budgets and policies, independent Basic Speed provides a way to rate Dodge against assassins, or even who speaks first in a debate! (Although the latter makes a stronger case for Basic Speed = IQ/2; see *Basic Speed Reformulated,* pp. 18-19.)

What independent Basic Speed should cost depends on what it affects. If it doesn't determine Basic Move, 15 points/level is fair – or the standard 20 points/level, if being the first to act is paramount. If Basic Move = Basic Speed, make that 20-25 points/level. Charging less than this is justifiable for the reasons in *Cheaper Basic Speed* (pp. 9-10). The GM decides whether this influences DX or HT pricing – DX may merit a price cut, but taking Basic Speed away from HT is yet another way to keep HT fair at 10 points/level (see *More Expensive HT,* p. 12).

Finally, if Basic Speed is mostly a question of Dodge (and perhaps who acts first in a fight), and doesn't affect Basic Move, it can be more intuitive and convenient to rename it Dodge and start it at 8 instead of 5. This is a special case of *Adding Attributes* (below) and *Doing Away with Attributes* (pp. 37-40): The game gains the Dodge attribute and loses Basic Speed.

Independent Basic Move

Starts at 5

As *Basic Move Reformulated* (pp. 19-20) discusses, movement speed in real life is about metabolic rate and body size, proportions, and morphology, which correlate weakly if at all with reflexes (Basic Speed), which in turn have little to do with DX (which rates such things as balance, flexibility, and motor skills) or HT (which measures general resistance and "grit"). This suggests that independent Basic Move may be the most realistic option. The main reasons to avoid it are "It breaks with tradition!", which is unlikely to concern those who bought a supplement titled ***Alternate Attributes***, and "It means more racial Basic Move modifiers!", which isn't true, because Basic Move for animals is *already* all over the map relative to Basic Speed.

Thus, independent Basic Move is another change for the better in most campaigns. Where it may come up short is in cinematic games in the vein of ***Action, Martial Arts,*** or ***Supers,*** in which everyone expects fighters with high DX to excel at running around – quietly ignoring that real-world martial artists move conservatively when fighting, and shooters prefer not to move at all except *between* shots. There, it's best to let attributes affect Basic Move.

Any price in *Cheaper Basic Move* (p. 10) or *More Expensive Basic Move* (p. 15) is defensible, with 5 points/level being a suggested minimum in campaigns where tactical movement on a combat map – particularly *Step* (p. B368) – matters. If that's irrelevant, even 1 point/level might work. In games with many flying characters (***Supers*** comes to mind once again, but so does the fairly realistic ***Transhuman Space*** setting), the GM could charge as little as 2 points/level to make ground movement competitive with air Move (p. B18). The cost probably shouldn't affect Basic Speed; if it and Basic Move seem too expensive together, making Basic Move a bit cheaper is less likely to upset game balance.

Adding Attributes

It isn't always possible to adapt ***GURPS*** to a campaign or style of play by juggling the costs of standard basic attributes and secondary characteristics, or by altering how the latter depend on the former. The next step up from declaring a secondary characteristic independent and *effectively* a new attribute is adding *completely* new attributes.

Promoting Advantages to Attributes

Advantages that boost attributes for specific purposes can be more attractive than the attributes themselves to gamers who want their characters to be capable in narrow areas. That's mostly because such traits offer a cheap way to get very good, very fast. Examples are Charisma, which aids all Influence rolls and several "social" skills for 5 points/level, and Talents that cost 5 points/level and grant bonuses to key skills. These cost much less than IQ or DX, which *seems* fair . . . right up until someone creates a one-trick-wonder that's no fun to play outside of a narrow context, and tries to force the game down that avenue.

At the same time, despite their price, attributes are almost too good a deal for those who aim to excel in several areas at once. The player of a wizard who's socially adept and an expert healer won't buy Magery, Charisma, and Healer; they'll just get IQ. This isn't a completely bad thing, but it does mean the wizard is good at *everything else* IQ affects – including Will and Per (unless reformulated or made independent), and skills unrelated to magic, social activity, and healing – which can invade niches claimed by other players.

A solution to both problems is to assign skills, spells, or tasks that are important to the campaign to a new attribute that begins at 10. The advantage that formerly governed those things goes away, replaced by improvements to the attribute. Doing so puts an end to bargain-hunting and comparison-shopping, as there are no longer two distinct ways to improve broad capability in an area. At the same time, it removes the temptation to turn all specialists into broad generalists who step on other characters' toes merely because it costs only a few points more.

This isn't necessarily as simple as it sounds. Here are a few important examples. For traits not discussed here, pick the ideas that seems most applicable and adapt them as needed.

Acute Senses

Replacing Perception with Hearing, Taste/Smell, Touch, and Vision stats has several downsides: It adds *a lot* of new traits to character sheets. Being above-average across the board – a valid niche for detectives, scouts, spies, etc. – is likely to get expensive. And a number of skills become harder to handle. The upside is added realism: Each sense *does* involve different organs and areas of the brain!

This works best in games where Per, if kept, would be independent. See *Independent Perception* (p. 21) for more on that – particularly advice on repricing (or not repricing) IQ. Starting each of these scores at 10 and charging ±2 points/level could work, but it's probably fairer to acknowledge that some senses are more valuable; e.g., Vision is ±4 points/level, Hearing is ±2 points/level, and Taste/Smell and Touch are ±1 point/level. These might have different upper limits, too; perhaps humans are limited to 15 rather than 20 in Taste/Smell.

When doing this, it's best to retire sensory disadvantages like Bad Sight, Blindness, Deafness, and Hard of Hearing. Loss of senses becomes a matter of degree, although the GM can make 0 *actual* loss of the sense – not permitting rolls even with bonuses – and forbid scores of 1-2. For example, for Vision at ±4 points/level, a Vision attribute of 4 is worth -24 points (vs. -25 points for Bad Sight, which gives a Per 10 human a Vision roll of 4), 3 is worth -28 points, but nobody can have 2 or 1 – after 3 comes 0, for -40 points, replacing Blindness at -50 points.

Impaired senses also have important effects that aren't directly related to Sense rolls. This is primarily an issue for Vision. The GM could rule that Vision gives -1 to combat skill rolls per level below 10. There needn't be a corresponding bonus!

The question of what to do with Per-based skills is trickier. It might be best to base them all on a flat 10 and modify rolls depending on what sense governs the specific use. For instance, a *visual* use of Search might be at +2 for Vision 12 while a *pat-down* is at -1 for Touch 9. If only one sense ever matters, base the skill on that sense; e.g., Body Language and Lip Reading take Vision modifiers, so it's fair to call them Vision-based skills. And if the sense isn't obvious, it's fine to move the skill to IQ – that suits Esoteric Medicine.

Adding Secondary Characteristics

Essentially all of the advice that *Adding Attributes* (pp. 23-36) offers regarding new basic attributes also applies to adding secondary characteristics. Like basic attributes, secondary characteristics require uses in play (e.g., the rolls and skills they govern, and other functions such as movement speed or serving as *New Resources,* p. 36), point costs, limits, and evocative, easily remembered names. Yet there are differences:

Formula: Secondary characteristics require formulas to compute them. A dependence on basic attributes or other secondary characteristics is *why* they're "secondary"! Such a formula needn't be realistic, least of all for a trait tied to the supernatural, but it shouldn't perplex the players (as "Magic Points = DX" surely would) or be unduly complicated (for instance, "Magic Points = square root of (IQ^2 + $Will^2$)/2"). New secondary characteristics needn't depend on new basic attributes ("Magic Points = IQ" is fine), but this is common, *especially* for new resources (e.g., "Magic Points = Spirit").

Limits: Minimum and maximum permitted scores require extra consideration for secondary characteristics. Basic attributes need only a range of values. That *can* work for secondary characteristics, but it's more universal to express limits *relative to the governing basic attributes,* like "the GM should not allow HP to vary by more than ±30% of ST." It's sometimes reasonable to combine these approaches; e.g., in "You cannot raise Will past 20, or lower it by more than 4," the upper limit is absolute but the lower one is relative.

Cost Interdependencies: Examine the interactions between the point costs of the new secondary characteristics and their governing basic attributes. A basic attribute's price must take into account cost contributions from the secondary characteristics it governs; existing basic attributes may require repricing if they suddenly factor into additional secondary characteristics. A new secondary characteristic's price should be such that raising the score by a level directly costs less than obtaining +1 by improving the governing basic attributes in any combination.

Existing Secondary Characteristics, New Basic Attributes

Inverting all this, new attributes might be more logical – or at least *preferable* – bases for existing secondary characteristics. The above considerations hold: A revised formula is needed, tying such a secondary characteristic to the new basic attributes; limits defined relative to existing basic attributes must be rethought in terms of the new ones; and a new basic attribute that governs an existing secondary characteristic must cost more than that characteristic, while existing basic attributes that no longer govern existing secondary characteristics should get cheaper unless they were underpriced before.

Finally, there's the challenge of exotic senses. It's probably simplest to declare that these have built-in rolls for use that start at 10 and can be improved by paying more for the advantage. For instance, Danger Sense might cost "15 points + 2 points per +1," so someone with Danger Sense (12 or less) would pay 19 points.

> *A sharp sense of empathy can make a huge difference and with it an ability to manipulate, to gain cooperation, and to deceive.*
>
> *– E.O. Wilson,* ***The Social Conquest of Earth***

Charisma

A common complaint among ***GURPS*** fans is that tying almost all "social" skills to IQ makes it tricky to play socially awkward geniuses, charmers who aren't wizards or rocket scientists, and other archetypes with a gap between "traditional" and social intelligence. The Charisma advantage offers a workaround, giving +1 per level to rolls against the six standard Influence skills and the levels of four other skills. In fact, at 5 points/level, it does the work of a Talent that would typically cost 10 points/level. One Talent, Smooth Operator, covers almost the same ground but costs *15* points/level . . . and consequently isn't competitive with Charisma *or* IQ.

Retiring Charisma *and* Smooth Operator, and promoting Charisma to an attribute that starts at 10 and costs 10 points/level, offers a workable solution in a game with a deep social dimension. At a minimum, it should become the controlling attribute for the skills those advantages assist: Acting, Carousing, Detect Lies, Diplomacy, Fast-Talk, Fortune-Telling, Intimidation, Leadership, Panhandling, Politics, Public Speaking, Savoir-Faire, Sex Appeal, and Streetwise. The GM is free to add other skills that have an interpersonal dimension; e.g., Interrogation or Psychology. See also *Social Intelligence* (p. 43).

Players may feel this approach is overpriced – especially if they're used to Charisma at 5 points/level. The misgiving might even be warranted, as the discussions in *Cheaper HT* (p. 7), *Cheaper Will* (pp. 7-8), and *Cheaper Perception* (p. 8) place the contribution of this number of skills to an attribute's price at 1-2 points/level. To merit 10 points/level, the attribute ought to do other things, too.

One possible solution is two-pronged. First, use the Charisma attribute for *resistance* against the skills it governs, the logic being that manipulating and resisting manipulation both reflect social aptitude; *Cheaper Will* rates this contribution at 1-2 points/level. This has the nice side effect of taking some pressure off Will, which might merit more like 10-14 points/level in psychologically complex campaigns; see *More Expensive Will* (p. 13). Second, rule that each level gives ±1 to general reactions (e.g., -2 at Charisma 8 or +3 at Charisma 13); comparison with Reputation, Social Regard, and the like suggests 5 points/level for this. To make a round 10 points/level fair, add extra skills (e.g., "bardic magic" as Charisma-based Enthrallment skills), declare telepathic gifts (such as the Mind Control and Mind Probe advantages) Charisma-dependent, and toss in the occasional raw Charisma roll to "snap out of" the effects of Influence rolls.

Think carefully about whether a Charisma attribute *actually* justifies making IQ any cheaper, as IQ already does an awful lot and less-social characters (most of them, if the players prefer action, stealth, magic, etc.!) won't suffer any real loss if they're suddenly not so great at social interactions. There's no especially good reason to make any other score cheaper, either. As mentioned above, this could easily keep Will from seeming too *under*priced, and the tiny number of HT- and Per-based skills aren't worth worrying about.

Magery

If, as in the ***Basic Set,*** magic involves IQ-based skills ("spells") that receive a bonus from Magery, IQ isn't necessarily more costly than Magery. Taking +1 to IQ [20], -1 to Will [-5], and -1 to Per [-5] costs the same 10 points as one level of Magery, grants the same +1 to spells, and *also* benefits loads of mundane skills, while leaving Will and Per unaffected. If the GM doesn't enforce a disadvantage limit (p. B11) or count reduced basic attributes and secondary characteristics against it – or routinely gives permission to lower Will and Per by more than 4 – there's little incentive to take Magery except as a prerequisite. Even if the GM is strict here, many players of wizards take high IQ because it does all the stuff it does for non-magic-users *and* aids hundreds of spells! That leads to wizards upstaging all manner of characters whose concepts call for them to be smart but not use magic.

Moving spells to a Magery *attribute* solves these problems and gives the GM another "hook" on which to hang world-building concepts (e.g., a world in which magic-working is a profession rather than an accident of birth). Its price shouldn't be *less* than the 10 points/level of the standard Magery advantage. Depending on how you count, there are 800-900 spells in ***GURPS Magic.*** As discussed earlier in this work, the 235 skills based on DX and IQ in the ***Basic Set*** justify a combined contribution of 25 points/level to DX and IQ, so a naive calculation suggests that Magery is worth 85 to 95 points/level! There are diminishing returns in a game where nobody has 800-900 points for spells, but even so, the GM who believes it's too easy to become an archmage could easily rationalize 20 points/level – just like IQ.

Making Magery an attribute means answering many questions:

Who can cast spells? If everybody has the Magery attribute, an implication is that all people can cast spells; some are just better at it than others. If that doesn't suit the game world, it's straightforward to say that an Unusual Background functionally equivalent to Magery 0 – and mutually exclusive with Magic Resistance – is required to work magic. That can cost 5 points, 10 points, or whatever the GM believes "I can work magic; most people can't!" is worth.

What are the limits? If IQ can attain the human limit of 20 *and* the Magery advantage would normally add to that, there are arguments that the Magery attribute ought to go to some astronomical level, but the GM is free to cap it at 20, like IQ.

On the low end, it's a bad idea to let players *reduce* this attribute unless they've paid extra points to "switch on" spell-casting ability . . . and even then, as reducing Magery can pay for this and grant a whole new set of abilities, the GM might forbid scores less than 10. If substandard Magery gives some serious penalty, that's another matter; e.g., if beings resist spells with the *worst* of their Magery attribute and the usual one (generally HT or Will), and every spell-caster can sense this, players will be reluctant to lower it in a high-magic setting.

External Social Attributes

Attributes rate capabilities of the mind, body, spirit, etc., making them *internal*. By contrast, social traits describe one's place in an *external* society. That's why they're advantages or disadvantages – not attributes – such as Contacts, Duty, Enemies, Gizmos, Signature Gear, and other acquired resources or problems.

Yet some social traits come in levels that define a scale on which even people without an advantage or disadvantage have a rating (e.g., Status 0 or Average wealth), exactly as basic attributes describe a range on which those who spend no points receive a 10. The GM might feel this makes such traits suitable for *Promoting Advantages to Attributes* (pp. 23-27) – and indeed, many RPGs handle social standing this way. Here are some thoughts on doing so in ***GURPS.***

Status

The easiest way to handle Status as an attribute is to add the advantage level to 10. In a society where the *advantage* ranges from -2 to 8 (as p. B28 assumes is typical), the *attribute* has a floor of 8, a ceiling of 18. Nobody can have a score outside this range!

Subtract 10 from the attribute level to determine effective advantage level for rules that require it – most notably for reaction modifiers (p. B29). And if that's all Status does, it should cost the standard 5 points/level . . . and it's worth asking whether it even needs to be an attribute.

More interestingly, it seems fair to base Savoir-Faire (High Society) on Status rather than IQ – and perhaps to do the same with Connoisseur, Current Affairs (Business, High Culture, People, and Politics), and Heraldry on the grounds that the high-and-mighty are more exposed to such things. The GM might also "float" Diplomacy, Intimidation, Leadership, Politics, Propaganda, and Public Speaking rolls to Status whenever social standing is more important than eloquence. Raw Status rolls could grant access to exclusive people, places, and events, and serve as job rolls for high office. If all *those* things hold true, Status is a better candidate for an attribute, fairly priced at 6-10 points/level.

Wealth

Wealth is trickier to convert into an attribute. One approach is to treat Average as 10 and each step away from that as one level, at the usual cost. In a society with Dead Broke through Multimillionaire 4 – implied as standard on p. B517 – this means the Wealth attribute ranges from 7 (Dead Broke) at -25 points to 18 (Multimillionaire 4) at 150 points.

Alternatively, replace the existing progression with a smooth sequence of starting wealth and monthly pay multipliers at a uniform per-level cost. Here's one possibility:

Level	*Point Cost*	*Multiplier*
7	-30	×0
8	-20	×1/5
9	-10	×1/2
10	0	×1
11	10	×2
12	20	×5
13	30	×10
14	40	×20
15	50	×50

And so on, at 10 points/level. At high levels, every +3 gives another ×10. For instance, +15 means an additional ×100,000, so compared to Wealth 13, Wealth 28 grants ×1,000,000; this is like Multimillionaire 4, but costs 180 points, not 150.

If all this does is re-label the Wealth advantage, why bother? But the Wealth attribute might control skills, *particularly* Finance: Landing deals and raising capital are much easier when you have good credit! Rolls against Administration, Carousing, Fast-Talk, Gambling, Market Analysis, Merchant, Politics, Savoir-Faire, and Streetwise might "float" to Wealth when the goal is bribery or solving problems with cash. The GM could even do away with tracking money for small purchases; a successful Wealth roll acquires the item. There might be a penalty for price (e.g., -1 at 10% of campaign-average starting money, -2 at 20%, -3 at 50%, -4 at 100%, and so on), allowing richer characters to buy more costly stuff.

None of that needs to affect point cost. Wealth is already expensive for what it does in most settings. Giving it ongoing worth in play at no extra charge is a way to remedy this.

Combined Status and Wealth

In societies where Status and Wealth are closely related – ones where *Wealth and Status* (p. B26) would apply – the above ideas can be combined in a single attribute, call it Social Standing (SS). Each level different from 10 shifts money *and* Status away from Average by one line on the table on p. B517; e.g., SS 16 gives ×10,000 money and Status 6. This attribute also controls *all* the skills, rolls, and reaction modifiers mentioned above. Working from standard costs, SS 7-14 averages 15 points/level, while SS 7-18 averages 19.5 points/level, so 15-20 points/level seems fair.

How do Magery-based limits on effect work? Magery and Effect (p. B237), *Missile Spells* (pp. B240-241), and several individual spells base the maximum level of certain spell parameters on Magery. The direct translation is to use the amount by which the Magery attribute exceeds 10; e.g., a Magery attribute of 15 is like a Magery advantage of 5. If that seems too generous, the GM can vary it – say, by setting the equivalent Magery advantage level at attribute/3, dropping fractions (so 3 at 10-11, 4 at 12-14, 5 at 15-17, and 6 at 18-20).

Can Magery be limited? Sure, why not? If it's possible to take limitations on ST and DX, it seems fair to allow a Magery attribute of 11+ to have the limitations on p. B67.

What else does Magery govern? A Magery attribute doesn't have to do anything but govern spells and replace rolls against Perception + Magery advantage to sense magical phenomena. It *might* also have that resistance effect noted above, if anybody can reduce it. The only skill that merits consideration for being based on it is Thaumatology (which could instead remain IQ-based). Finally, the Magery attribute might replace rolls against other attributes to use advantages that have been turned into abilities of magical powers.

What about other magic? If the campaign features several varieties of magic – as in ***Dungeon Fantasy,*** which distinguishes clerical, druidic, and wizardly magic – the GM must decide how they interact with the Magery attribute. Perhaps each kind requires its own Unusual Background but all spells are Magery-based; the gift of casting differs by power source, but having a "head for magic-use" is universal. The Unusual Background is what controls accessing multiple types of magic, so the GM can set its price as high as feels right for the game, or make such traits mutually exclusive. Or maybe each class of magic has its own attribute, corresponding to Magery, Power Investiture, and so on. That shouldn't make those attributes cheaper, but it might fairly lower Unusual Background costs.

Mathematics is the art of giving the same name to different things.

– Henri Poincaré

Talent

While few Talents are generic enough to spin off as independent attributes in most campaigns, there are always exceptions! If a single class of activities is the campaign's *focus* – or one of a few key areas – Talent for the associated skills might work better as an attribute that controls those skills and any others that seem to fit.

The GM may wish to convert Talents that cost 5 or 10 points/level into attributes that cost 5 points/level, and turn only 15 points/level Talents into 10 points/level attributes. Alternatively, add something extra to make the Talent-turned-attribute attractive even to those who lack the skills. Perhaps scores above or below 10 give bonuses or penalties to something important, such as reaction rolls or certain combat rolls. Maybe the attribute is used to resist something. Retiring a closely related advantage and making its capabilities a function of a roll against the new attribute works especially well; the table on pp. 23-24 of ***GURPS Power-Ups 3: Talents*** is inspirational. Some examples (with the name of the Talent in **boldface**):

Animal Empathy: Replaces **Animal Friend** and Animal Empathy. Controls Animal Handling, Falconry, Packing, Riding, Teamster, and Veterinary – all listed for Animal Friend – as well as Disguise (Animals) and Mimicry (Animal Sounds and Bird Calls). Each level gives ±1 to reactions from animals; e.g., -1 at Animal Empathy 9 or +2 at Animal Empathy 12. Make a basic attribute roll to read the motivations and emotional state of an animal, to know whether it's under supernatural control, etc. Magic-users learn Animal spells based on this score, not IQ.

Empathy: Replaces **Empath** and Empathy. Controls Body Language, Detect Lies, Diplomacy, Fortune-Telling, and Psychology. Gives -1 to all reaction rolls per level below 10 (there's no corresponding bonus above 10). Make a basic attribute roll to "read" someone, with results as described for Empathy (p. B51). Magic-users learn Communication and Empathy and Mind Control spells based on this score, not IQ.

Faith: Replaces **Close to Heaven** and True Faith. Controls Exorcism, Meditation, Religious Ritual, and Theology, as well as religious specialties of Ritual Magic and Symbol Drawing. Each level gives ±1 to reactions from divine emissaries, like angels. Make a basic attribute roll to repel malign supernatural entities; this works just like the Will roll for True Faith (p. B94). Replaces HT or Will when resisting "evil powers" of demons and the undead. Clerics learn their spells based on this score, not IQ.

The GM decides the point value. Looking over the examples above, Animal Empathy and Empathy are probably worth 5-10 points/level. Faith is comparable to Magery turned into an attribute (pp. 25-27), and could easily be worth 10-20 points/level.

Power Talents

Talents for powers could be worthy generic attributes in campaigns where everyone has a power and/or where that power source underlies a significant skill list. All of the advice for skill Talents remains valid. In particular, don't hesitate to add enough to the attribute that even those without special powers or skills might want to improve it. An example:

Chi: Replaces **Chi Talent.** Controls *all* "cinematic martial-arts skills" and is the score to roll against whenever an ability with the Chi power modifier calls for an attribute roll. Make a basic attribute roll to sense people, places, or things unusually imbued with *chi*. Replaces other attributes when resisting Hypnotic Hands, Invisibility Art, Kiai, Pressure Points, or any offensive capability with the Chi power modifier. Also replaces Will when attempting extra effort.

In many ways, Magery is the power Talent for magical powers. Much of the advice on turning it into an attribute (pp. 25-27) is generally applicable.

Dividing Up Existing Scores

Another matter that troubles some ***GURPS*** players is the *breadth* of attributes. Many of the descriptions on pp. B14-18 lump together lists of qualities that not everyone feels are closely related, with ramifications that are particularly evident for skills (e.g., a high DX means you're a natural at cycling, escaping handcuffs, hitting targets, and sewing). This makes it challenging to create characters who aren't equally gifted at every aspect of a trait. These different facets may seem distinctive enough to merit separate treatment, and important enough that their combined price tag should exceed that of the "package deal."

Which suggests the solution: Split apart the package so the attribute becomes *several* scores that can be modified from their base – usually 10 – independently. Doing so raises two serious questions.

What Does It Cost?

The "obvious" way to price the new attributes is so that their *collective* cost per level equals the cost per level of the standard attribute. That isn't a *good* solution, though! A lot of players will use the points they'd have spent anyway to improve the new scores lockstep, erasing the distinction; even more will raise only the parts that do something they want, getting everything that mattered to them under the standard rules for far too few points.

It's recommended to make the new attributes more-or-less comparable to one another in price, with a *collective* cost that falls being between marginally more than the original (e.g., if splitting DX in two, 11 points/level apiece rather than 10) and twice as much (in that example, 20 points/level apiece). That suggests the values listed in the *New Attribute Cost* table, below.

The GM is free to use *any* cost, possibly influenced by *Aesthetic Pricing* (p. 15). For instance, DX might end up split into three attributes that cost *15* points/level because 14 points/level isn't pleasing. As a guideline, it's better to err on the high side – that makes players choose what to focus on, which leads to better characterization.

What Goes with What?

How to assign the skills and tasks covered by the standard attribute to the new ones is topical for Chapter 3, but in brief: Try to split things up more-or-less evenly. If that isn't possible, use the contributions discussed in Chapter 1 to get an idea of what each part is worth, and adjust costs accordingly.

Dividing Up ST

Splitting up ST according to these guidelines is *not* recommended, mostly because ST doesn't control any skills. Arm ST, Lifting ST, Striking ST, and (if still based on ST) Hit Points do an adequate job of distinguishing the most important aspects of ST.

A GM who *loves* simulations could promote Arm ST to an attribute, add Core ST and Leg ST to accompany it, and even introduce scores like Bite ST, Neck ST, and Hand ST. It wouldn't be *wrong,* but it would bring in a bewildering number of traits, and assigning costs and tasks to these would be a chore: How much of melee damage, lifting ability, or the ST used in a Contest comes from each body part? What's the formula for that – and does it change with the circumstances? If a newcomer to ***GURPS*** asks to play "a mighty warrior" or "a wiry acrobat," what do you recommend they buy? We're not going to try to answer those questions here!

On the whole, splitting up ST into slow (Lifting) and fast (Striking) elements is a fair simulation of reality – and if HP don't seem to fit, there's *Independent Hit Points* (pp. 20-21).

The control of large numbers is possible, and like unto that of small numbers, if we subdivide them.
– Sun Tzu, ***The Book of War***

Dividing Up DX

On the other hand, DX is a bona fide catchall: "a combination of agility, coordination, and fine motor ability" . . . and flexibility (every skill the Flexibility advantage boosts is DX-based), balance (as are the skills and dice rolls Perfect Balance aids), reflexes (DX contributes to Basic Speed and controls Fast-Draw), speed (Basic Speed, in turn, gives Basic Move – and many DX-based skills are about going fast), and other things besides. The GM could easily use *Independent Basic Speed* (p. 23) and *Independent Basic Move* (p. 23) and still have enough left for four or five attributes!

The biggest challenge is *Reassigning Skills* (pp. 41-44). While DX may be a catchall, a lot of skills legitimately use multiple aspects of it, meaning that they might end up based on a formula involving several attributes. After skills come DX rolls – but most of these are more single-purpose, so it's "just" a matter of matching them to the chosen attributes.

New Attribute Cost

Original Cost	*Examples*	*Cost of Each New Attribute If There Are:*				
		2	*3*	*4*	*5*	*6*
5 points/level	Will, Per	3-5 points/level	2-4 points/level	2-3 points/level	2 points/level	1-2 points/level
10 points/level	ST, HT	6-10 points/level	4-7 points/level	3-5 points/level	3-4 points/level	2-4 points/level
20 points/level	DX, IQ	11-20 points/level	7-14 points/level	6-10 points/level	5-8 points/level	4-7 points/level

Reasonable options include Balance (for general athletics like Acrobatics, Bicycling, Dancing, Jumping, and Riding, and DX rolls to keep your feet), Coordination (covering most weapon and vehicle skills), Flexibility (seems applicable to Climbing, Erotic Art, Escape, Wrestling, etc., not to mention DX rolls when grappling), and Manual Dexterity (for the skills under High Manual Dexterity and Ham-Fisted, and DX rolls for a steady hand or fine work). Those are just examples – no breakdown is perfect. For instance, if you chose those four, where would you put Stealth? Perhaps Balance should be renamed Agility to include it, or maybe both need to exist . . . and you'll run into dozens of similar puzzles.

Dividing Up IQ

Intelligence is even more of a smorgasbord than DX! It includes "creativity, intuition, memory, perception, reason, sanity, and willpower" – take a breath – and rules "sciences, social interaction, magic, etc." Is there anything IQ *can't* do?

Arguably, if you're going to split up just one basic attribute, it should be IQ: ***GURPS*** has *three* physical scores (ST, DX, and HT) yet just one mental one (IQ). The decision to use *Independent Will* (p. 21) and *Independent Perception* (p. 21) can balance things a bit, as that in effect leads to three autonomous mental attributes. That's a suggested first step for anyone splitting up IQ.

After that, everything depends on the campaign's needs. *Promoting Advantages to Attributes* (pp. 23-27) suggests a Charisma attribute for social skills, a Magery attribute for magic, and any number of Talent-inspired attributes for other intellectual pursuits. There could be Creativity (covering Artist, Jeweler, Musical Composition, Musical Instrument, Performance, Photography, and suchlike, as well as invention rolls), Logic (controlling Mathematics and scientific skills, general IQ rolls, and the Intuition advantage), Memory (the base for skills like Area Knowledge, Current Affairs, and Hidden Lore, with high levels replacing Eidetic Memory), and more. Some games might split hairs – say, using Creativity for *arts* but Innovation for STEM disciplines – or let education, philosophy, psychology, or neuroscience suggest divisions (like Emotional Intelligence, Practical Intelligence, and Social Intelligence). And the names could change; e.g., Imagination, Reason, and Knowledge instead of Creativity, Logic, and Memory.

It's possible to go far here – perhaps replacing IQ, Will, and Per with *six* scores. Cost for each would be in the 6-10 points/level range; with skill and non-skill uses more-or-less equally split up among them, 10 points/level would be defensible. Doing this would make it *much* easier to play characters who are different kinds of "smart." What those six scores are would still depend on campaign needs; a science-fiction game could run with Charisma, Creativity, Logic, Memory, Perception, and Willpower, while a ***Horror*** one might prefer Empathy (see *Talent,* p. 27), Imagination, Reason, Stability (Will renamed), Sensitivity (for mystical forces and abilities), and Vigilance (Per with a new name).

As with DX, *Reassigning Skills* (pp. 41-44) is a big deal, especially as some skills would draw upon multiple aspects of what was formerly IQ. This could lead to basing skills on formulas – but not necessarily. The GM might instead record a skill level based on a flat 10, per *Using Skills Without Attributes* (p. B172), and "float" the roll to whatever mental attribute suits the task, as in *Using Skills with Other Attributes*. For instance, a Physics roll would be Creativity-based to do research, Logic-based to solve physics problems, or Memory-based to recall facts.

Dividing Up HT

It's easy to accept one figure rating the state of the body, given the interdependence of its parts that doctors tout. Yet HT does several things that differ significantly in *game* terms. It measures athleticism (controlling Hiking, Lifting, Running, Skating, Skiing, and Swimming, and contributing to Basic Speed and thus Basic Move), resistance to physical menaces (disease, poison, radiation, temperature, etc.), stamina (mainly through FP), the "will" to remain conscious and alive, and some sort of visible vitality that aids Carousing and Sex Appeal.

When splitting up HT, start by implementing *Independent Fatigue Points* (pp. 22-23) and either *Basic Speed Reformulated* (pp. 18-19) or *Independent Basic Speed* (p. 23). Since HT tends toward the underpriced side, use its full 10 points/level when pricing replacement attributes; e.g., after taking away FP and Basic Speed, if splitting HT into three scores, make each worth 4-7 points/level. The things HT does are so useful that 5 points/level is a suggested floor.

What should the new attributes be? That depends on the campaign, but it would work to pick, say, Athleticism or Fitness for skills, and for body control such as breath-holding time and any HT rolls needed for extra effort, shutting the eyes in time, or recovering FP; Fortitude or Resistance, used whenever a hazard, weapon, or supernatural ability offers a "saving throw"; and Resilience or Toughness for HT rolls to avoid, minimize, or recover from injury effects (stun, knockdown, crippling, unconsciousness, death, etc., including rolls to regain lost HP), high levels of which may replace Hard to Kill, Hard to Subdue, and/or Rapid Healing.

Clearly, the challenge is less about splitting up a small handful of skills (13) and more about dividing up HT rolls, which are legion. This involves considerable work – though the decision could be made as HT rolls arise on adventures. This requires the GM to be open to player input; unilaterally ruling that Resistance covers a situation that everyone bought Toughness to withstand *won't* be popular!

Dividing Up Hit Points

In real life, various kinds of injury accrue and heal at dissimilar rates, and affect the body differently: 8 HP from a blow, 8 HP inflicted by poison, and 8 HP due to negative FP don't look the same, and perhaps shouldn't add up to 24 HP of injury. That seems to suggest HP need splitting up.

In the game, this creates significant work. The GM is free to do this, though! Perhaps physical injury is marked off against Body Points, Injury Points, or Trauma Points, while metabolic harm from disease, poison, negative FP, etc. costs Shock Points or Metabolism Points. The GM could further decide that impacts differ from burns, burns by fire differ from those by acid, and so on, though that isn't recommended.

The complications don't end there: The GM must decide what kind(s) of injury *every* hazard and attack causes. Some dangers may inflict several sorts, like a spiked mace that crushes tissue *and* causes blood loss. With this comes the need to rule on what heals each sort of injury – what each treatment, potion, spell, etc. does.

Each kind of HP also needs its own set of effects – what happens at attribute/2, at 0, at fully negative values, etc. It's simplest if these resemble the effects of HP loss in the standard rules.

And there should probably be rules for interactions; it's hard to believe that a plague victim with Shock Points at 0 would survive a stabbing as easily as a healthy person. A suggested rule is that all injuries of one type *slightly* ablate all other kinds of HP – say, by 1/5 or 1/10 as much. Being severely depleted in one area might also give a moderate penalty to HT rolls related to resisting or recovering from losses in the others, perhaps -1 at 0, -2 if fully negative, and another -1 per full negative multiple.

All this works best when using regular, ST-based HP to absorb gross physical trauma, but *Hit Points Reformulated* (pp. 16-17) – perhaps to depend on HT – or just *Independent Hit Points* (pp. 20-21) for all the other kinds. A point cost of 1 or 2 points/level for each type of HP is best, saving 1 point/level for campaigns that introduce four or more varieties.

Stun Points

In ***Supers*** and truly over-the-top ***Action*** and ***Martial Arts*** campaigns, the GM may want to let everyone have Stun Points (SP) that are *N* times HP. *N* = 5 works well.

Injury is compared to HP/2, HP/3, etc. as usual, to determine stun, knockdown, and crippling. But *while the character is conscious,* losses come off SP, with only 1/*N* of that, rounded down, coming off HP. Unconsciousness is automatic after any attack takes SP to 0; SP can't go negative. At that point, further injury comes off HP at full value, which can lead to death.

Example: The Incredible Sponge has ST 15 in a campaign that uses HP = ST and SP = 5×HP; she has HP 15, SP 75. Any injury of 8 points or more is a major wound and enough to cripple a limb. She sustains a laser blast for 27 points, which leaves her with 48 SP; then an Übersoldat punches her for 33 points, which leaves her with 15 SP; and *then* she's shot for 50 points, which takes her SP to 0 (but not below, because she's still conscious) and knocks her out. These injuries *also* do 27/5 = 5, 33/5 = 6, and 50/5 = 10 HP of injury, so she's lost 21 HP, too, and is at -6 HP. Further harm comes off HP, and even a 9-HP wound could put her at -1×HP and kill her.

Anything that restores HP also restores SP at *N* times that rate. In the above example, Sponge ended up at -6 HP and 0 SP. If she received first aid that healed 2 HP of injury, she'd be at -4 HP and 10 SP. Recovery from unconsciousness depends only on HP, as in *Recovering from Unconsciousness* (p. B423) – it's possible to be at full SP but comatose due to serious HP loss.

A fair price is 1 point per *N* SP, to a maximum of double original SP. That way, every 2 points grant *either* +1 HP and +*N* Stun Points, *or* +2×*N* Stun Points, which amounts to choosing between being harder to kill or harder to knock out. In the example, Sponge could spend up to 15 points for SP 150, whereas 14 or 16 points would give her HP 22 or 23 and SP 110 or 115.

This rule is completely unrealistic, and intended for campaigns where combat is a matter of "Biff! Bam! Pow!" and people mostly don't die.

> *Nothing is particularly hard if you divide it into small jobs.*
>
> *– Henry Ford*

Dividing Up Will

It's dramatically consistent for everything Will does to occur together. In a campaign where those elements are *supposed* to differ, however – often true for ***Horror*** – review the components outlined in *Cheaper Will* (pp. 7-8). There's skills (mostly arcane), Fright Checks, withstanding mundane foolery (Brainwashing, Hypnotism, Interrogation, and Influence skills), and resisting the supernatural.

When splitting these facets up, start from the stance of *Independent Will* (p. 21): None of this stuff *necessarily* depends on IQ! Then address the individual parts.

The skills might depend on IQ even if Will doesn't. This works especially well when *Dividing Up IQ* (p. 29) leads to attributes like Charisma (ideal for Intimidation and the Enthrallment skills), Chi (especially fits Meditation, Mental Strength, and Power Blow), Faith (perfect for Exorcism), and Sensitivity (suits Dreaming). Not all skills need move to the *same* attribute.

Then decide how many pieces to hack the remainder into. This, too, works best when *Dividing Up IQ*. It's fitting to use Charisma to withstand social influence; Faith, Magery, Sensitivity, or the like to resist the supernatural; and Willpower against Fright Checks, brainwashing, hypnotism, interrogation, etc. If *not* splitting IQ, Will may be separated into Resistance (if HT is divided up, go with Mental Resistance and Physical Resistance) for the supernatural and Sanity or Stability for the psychological. If Fright Checks are *crucial,* it may be worth going with, say, Resistance (vs. the weird), Sanity (vs. Fright Checks, probably replacing Fearfulness, Fearlessness, and Unfazeable), and Willpower (vs. social and antisocial influence, which may retire Indomitable).

Pricing depends on the path taken. When splitting up IQ and redistributing Will's role among its parts, which also have many other functions, use the costs recommended there. If making Will independent of IQ and dividing up only its role, 3-5 points/level for two attributes or 2-4 points/level for three is fine.

> *There is nothing in the intelligence which did not first pass through the senses.*
>
> *– Aristotle*

Dividing Up Per

The most intuitive division is into attributes corresponding to individual senses. This typically means Hearing, Taste/Smell, Touch, and Vision, and works best in campaigns that would otherwise use *Independent Perception* (p. 21). Pricing is tricky, as the senses overlap (with effects on cost discussed at length in *Cheaper Perception,* p. 8) and aren't equally useful. Instead of the generic price ranges recommended when splitting up most attributes – 2-3 points/level for each sense if Per would cost the standard 5 points/level, or 3-5 points/level for each sense if Per would cost 10 points/level as in *More Expensive Perception* (pp. 13-14) and *Perception Reformulated* (pp. 17-18) – consider using 3-5 points/level for Vision, 2-3 points/level for Hearing, but just 1 point/level for Taste/Smell and Touch. See *Acute Senses* (pp. 24-25) for advice on limits, interactions with other traits (advantages, disadvantages, and especially skills), and combat effects when taking this route.

Other divisions are more campaign-dependent. For instance, the GM of a ***Mysteries*** campaign could keep Perception – perhaps renaming it Alertness or Attention to avoid confusion – for Sense rolls, and introduce a Canniness or Insight attribute for detective skills like Body Language, Detect Lies, Lip Reading, Observation, Search, and Tracking. The latter might also control Criminology (for finding clues), Diagnosis (for autopsies), Shadowing (for trailing suspects), etc.

A game with major supernatural elements might retain Perception, too, but split off Awareness. Awareness would replace IQ and Per for esoteric advantages (e.g., Blessed, Clairsentience, Danger Sense, Empathy, Intuition, Mind Reading, Oracle, Precognition, Psychometry, Spirit Empathy, Telesend, and Visualization), control skills like Blind Fighting and Esoteric Medicine, and be the basis for Information spells and/or spells of the Knowledge college. Perhaps *anyone* gets an Awareness roll to sense ghosts, magic, and so on!

In cases like these, both attributes are worth at least 5 points/level. The campaign-specific one may even cost *10* points/level if the GM moves many skills or spells to it. Such divisions work best if these scores are independent of IQ – though "regular" Per could remain based on it.

Dividing Up Fatigue Points

As all of *Cheaper Fatigue Points* (pp. 8-9), *More Expensive Fatigue Points* (p. 14), and *Independent Fatigue Points* (pp. 22-23) point out, FP have a badly split personality: They're stamina depleted by hazards and nonlethal attacks, energy for mundane feats, a resource to power superhuman abilities, and much more. These categories are unalike, and even within them there are divisions – starvation isn't missed sleep, redlining running speed isn't pushing lifting capacity, and cinematic martial-arts skills aren't spells. This presents an excellent case for splitting up FP!

The GM can introduce as many categories of FP as suit the campaign's goals. That part is easy. The devil is in the details.

One option is for points that take *involuntary, physical losses* (to dehydration, drugs, exertion, illness, intense heat or cold, missed sleep, suffocation, etc.) to retain the name Fatigue Points and work exactly as in the ***Basic Set.*** The points available for *voluntary, physical feats* (notably cinematic combat rules, extra effort, and going past Extra-Heavy encumbrance) get a name like Heroic Reserves (HR); there are no negative effects at low values, but at 0 you can't push further, or are forced to spend HP. And the points used by *voluntary, superhuman abilities* are Energy Reserve (see ***GURPS Thaumatology,*** p. 50) promoted to an attribute; they work like HR, with a floor of 0 below which HP must be spent, but they're for special gifts only. All three recover independently at the rate of one point every 10 minutes in the absence of special abilities (so 1 FP, 1 HR, and 1 ER per 10 minutes) – but while FP and HR require rest, ER do not.

Divisions within a category are possible! A single score for true FP works best, but the GM could split FP into short-term losses that recover after minutes of rest and long-term ones that require food, water, or sleep; see ***GURPS After the End 1: Wastelanders,*** p. 24 for an implementation. Different categories of superhuman gifts may have separate Energy Reserves: Chi Points for cinematic martial-arts skills and advantages with the Chi power modifier, Faith Points for spells that require sanctity and advantages with the Divine power modifier, Magic Points for spells that need mana and advantages with the Magical power modifier, and so on. Even people *without* special powers have a starting value in these, so to avoid abuse, the GM should allow only characters who have suitable "core traits" (e.g., Trained by a Master for Chi Points, Power Investiture for Faith Points, or Magery for Magic Points) to modify the score – perhaps it can't be lowered and/or raised by more character points than were spent on the enabling traits.

Then there's the question of which points are based on HT, follow the guidelines in *Fatigue Points Reformulated* (p. 18), and use *Independent Fatigue Points* (pp. 22-23). It isn't a bad idea to use FP = HT for true FP. Heroic Reserves may do the same, begin equal to ST or (ST + HT)/2 so mighty warriors can pull off mighty feats, or start at 10. Energy Reserves might start from 10, but it's also possible to make the base value equal to IQ, Will, or a new attribute split off from these, like Faith or Magery. Different ERs can use different formulas; Chi Points may start equal to HT, Magic Points equal to the Magery attribute, Psi Points equal to Will, and so on.

Pricing is a question of utility. Mundane FP depleted by physical tribulations should follow the guidelines in *Cheaper Fatigue Points,* going as low as 1 point/level if players can't spend them and the GM mostly plans to ignore them – but in a gritty special-ops or post-apocalypse campaign with aggressive FP tracking, 3 points/level is fair even if FP are good *only* for this. Other kinds of points are best kept at 3 points/level, as they're resources, and anyone looking to raise them is planning to exploit them.

As for limits, the standard ±30% from baseline suits regular FP. The GM should limit other varieties of points in accordance with how much power the PCs are supposed to wield; see *Setting Limits* (p. 22). Remember that these are *instead of* rather than *as well as* FP, and can't go negative, so if the GM would allow ER 20 in a campaign where FP were useful for such things, it's fair to allow 30, 40, or more in one where they aren't.

Finally, while *Dividing Up Hit Points* (p. 30) proposes rules for interactions between different kinds of HP, similar measures *probably* aren't necessary when splitting up FP. The entire motivation for dividing up FP is that FP represent many things that shouldn't influence one another! An exception is for an ***After the End-***style short-term/long-term split; see those rules for how *that* works.

What's In a Name?

Sometimes, the "problem" with an attribute isn't its rules but what it's called. Changing its name – and perhaps nothing else! – can make it better match the campaign's "feel."

Names are important when *Dividing Up Existing Scores* (pp. 28-33), too. It's often advantageous to pick synonyms – or *near*-synonyms – for the original attribute's name. This reminds everyone that the attributes are related, while the terms' connotations and nuances (and the fact they're different words!) differentiate them. The biggest challenge can be coming up with *evocative* names for all the new scores, which also arises when *Splitting Up the Universe* (pp. 33-36).

Some suggestions, presented alphabetically and without judgment:

Strength: Brawn, Might, Muscle, Physical Power, Physical Strength, Physique, Power.

Dexterity: Adroitness, Agility, Balance, Coordination, Deftness, Flexibility, Hand-Eye Coordination, Manual Dexterity, Motor Ability, Nimbleness, Poise, Precision, Reflexes.

Intelligence: Astuteness, Brainpower, Brains, Cleverness, Cognition, Craftiness, Creativity, Cunning, Education, Imagination, Ingenuity, Innovation, Inspiration, Intellect, Intuition, Judgment, Knowledge, Logic, Memory, Mind, Reason, Recall, Resourcefulness, Shrewdness, Smarts, Understanding, Wisdom, Wits.

Health: Athleticism, Condition, Constitution, Durability, Endurance, Fitness, Fortitude, Grit, Hardiness, Physical Resistance, Resilience, Resistance, Robustness, Stamina, Sturdiness, Toughness, Vigor, Vitality.

Hit Points: Body Points, Damage Points, Injury Points, Life Points, Shock Points, Stun Points, Trauma Points, Vitality Points, Wound Points.

Will: Backbone, Bravery, Courage, Determination, Drive, Ego, Guts, Mental Resistance, Mental Strength, Mettle, Nerve, Pluck, Psyche, Resistance, Resolve, Sanity, Self-Control, Self-Discipline, Spirit, Stability, Tenacity, Willpower, Wits.

Perception: Acuity, Alertness, Attention, Attentiveness, Awareness, Canniness, Caution, Insight, Perspicacity, Sensitivity, Vigilance, Watchfulness.

Fatigue Points: Endurance Points, Energy Points, Stamina Points.

Basic Speed: Alacrity, Celerity, Dodge, Quickness, Reactions, Reflexes, Sequence, Speed.

Basic Move: Foot Move, Ground Move, Pace, Running Move, Swiftness.

Many terms suit several attributes; e.g., this list reuses Reflexes, Resistance, and Wits, and sticks "Points" after things used elsewhere. So if you want to use Athleticism for ST and Physique for HT, go for it! The words offered for IQ, Will, and Per are *especially* interchangeable.

Two further categories become important when new or spinoff attributes fall outside the largely mental and physical realms of standard ***GURPS*** ones:

Interpersonal Attributes: Control social skills and may grant reaction modifiers. Options include Character, Charisma, Charm, Empathy, Fascination, Magnetism, Personality, and Presence. Many suggestions for IQ, Will, and Per work, too: Canniness, Cunning, Drive, Ego, Resolve, Sensitivity, etc.

Mystical Attributes: The power Talent or modifier associated with the exotic or supernatural advantages, cinematic skills, or spells the attribute controls often suggests a name: Chi, Magery (or just Magic), Spirit, etc. Some sound nicer with a name change, like Faith or Holiness (instead of Divine or Power Investiture). For a general "weird stuff" attribute, the suggestions for IQ, Will, and Per again offer ideas, notably Awareness, Intuition, Psyche, Sensitivity, and Spirit. Also, Power always works. To name an associated resource (like FP), stick "Points" after the attribute name: Chi Points, Faith Points, Magic Points, Psi Points, Spirit Points, etc.

Dividing Up Basic Speed

Basic Speed probably shouldn't be split up according to these guidelines. It isn't a resource (like HP or FP), nor does it control skills (like DX, IQ, HT, Will, and Per); it's an open-ended measure of raw ability, like ST. It's *already* possible to improve its parts separately in the standard rules, using Enhanced Dodge, Basic Move, and the Blinding Strike perk (***GURPS Dungeon Fantasy Denizens: Swashbucklers,*** p. 22).

Some gamers may find noting Dodge, Basic Move, and Sequence on character sheets more intuitive, though. If all three start from Basic Speed, as in the standard rules, it's a bit strange *not* to list Basic Speed, yet at the same time that's almost meaningless clutter. If the parts are calculated differently (see *Basic Speed Reformulated,* pp. 18-19, and *Basic Move Reformulated,* pp. 19-20) or are totally independent (see *Independent Basic Speed,* p. 23, and *Independent Basic Move,* p. 23), making the scores explicit is more productive. In that case, Dodge, Basic Move, and Sequence start at whatever they start at – if independent, that's 8, 5, and 5.00, respectively – and are adjusted from there. Use 15 points/level for Dodge and 5 points/level for Basic Move, unless you'd reprice Basic Speed and Basic Move anyway. Sequence is worth anything from 1 to 5 points/level, depending on the campaign.

Dividing Up Basic Move

Basic Move doesn't have parts to divvy up! In campaigns where it matters, though, it can be worth noting Water Move and/or Air Move separately. Then Basic Move might seem more intuitive if renamed Ground Move. When listing these scores, Water Move is normally Basic Move/5 but the GM may prefer to make it independent, starting at 1. Air Move is 0 for those *without* special traits; again, the GM might prefer to start it at a flat 10 for those with Flight or 5 for those with Walk on Air, rather than have it depend on other scores.

Health is a state of complete physical, mental and social well-being.

– Constitution of the WHO

Splitting Up the Universe

The most radical approach to adding new attributes is to replace the existing set with an array the GM feels better describes people – or all of reality, or at least the campaign's focus. The usual goal is to end up with a structure more pleasing than ***GURPS'*** ratio of three physical attributes (ST, DX, and HT) to one mental one (IQ). Much of the work can be done using the advice in *Promoting Advantages to Attributes* (pp. 23-27) and *Dividing Up Existing Scores* (pp. 28-33), perhaps with a dash of *Doing Away with Attributes* (pp. 37-40), but in the end it's often necessary to introduce completely new scores by fiat.

And where do ideas for how to go about all this come from? In the end, the campaign and the gaming group – but the recommended way of getting there is split things up among realms (below), and optionally to build a grid that puts those along one edge and aspects (pp. 34-36) along the other. That way, large-scale priorities are identified first, and attributes are defined by filling in blanks. If you're at a loss for names for the resulting scores, see *What's In a Name?* (p. 32).

Realms

These are the broadest areas of competence important to the campaign. In most cases, two or three of the following will do – but some games might use all four, or even invent further realms.

Physical (or Body): The character's material being, including what the standard rules term ST, DX, HT, HP, FP, Basic Speed, and Basic Move. Nearly every campaign needs this realm, which is why ***GURPS*** privileges it – but it might be absent in a game about AIs or spirits, or rulers who operate through decrees and underlings rather than personal acts of heroism. When choosing what belongs here, it's useful to think about not what's included but what would be left behind if a person obtained a new body (say, through possession or neural uploading).

Mental (or Mind): The character's thoughts, including what the standard rules mean by IQ, Will, and Per. Though any character interesting enough to play has a mind, not all campaigns need the mental realm; e.g., a game entirely about combat, like ***Man to Man,*** could drop it and make this side of life a matter of pure roleplaying. Normally, qualities in this realm *would* remain with a person who obtained a new body.

Social: Interactions with other sapient beings – and with the surrounding civilization, culture, or society – may be so important to the campaign that they rate their own realm. Introducing the social realm is especially useful when the physical or mental one seems overloaded, particularly when seeking to have equal numbers of attributes in each realm. Thus, it might include qualities that would otherwise be physical (notably appearance) or mental (e.g., social intelligence or resistance to manipulation). It could even touch on the external, as discussed at length in *External Social Attributes* (p. 26).

Supernatural, Mystical, or Spirit: In campaigns where using and resisting exotica like magic or psionics is central, this might be made a realm of its own. Like the social realm, it may encompass qualities that would otherwise be mental – once again with the goal of taking some pressure off that realm. More rarely, it could cover something more-or-less physical, like *inheritable* supernatural ability or strong *chi*.

The GM has to decide not only what realms exist but also what qualities each realm encompasses. The latter isn't always self-evident! For instance, DX and Per have both physical and mental components – and as suggested above, the social and supernatural aren't entirely distinct from the mental and physical. When choosing what goes where, it's helpful to aim to have each realm include the same number of attributes, then assign the "obvious" attributes, and finally distribute the remaining attributes in a way that makes the realms equally large.

Realms as Attributes

A *highly* optional idea is to have the *realms themselves* serve as attributes of sorts. There are a couple of reasonably straightforward ways to do this.

Attributes and Subattributes: The realm score itself might be raised or lowered like a basic attribute under the standard rules. All the "subattributes" in the realm start equal to it, and are adjusted from it like secondary characteristics in the standard rules. When doing this, price the subattributes as attributes – ***Alternate Attributes*** offers many guidelines! – and the overarching realm score as the sum of their costs. Such an approach makes creating archetypes quick and easy: warriors have a high Physical score, thinkers raise Mental, wizards buy up Supernatural, etc. As realm attributes will be expensive, players who have specific character concepts in mind will want to tinker, meaning that adjusting subattributes is likely to be the rule rather than the exception. This is *much* easier if all the subattributes have the same cost per level, as then customization is just a matter of moving levels between them.

Formulas: Realm scores might instead be figured from the attributes that fall under them, and not be adjustable in themselves. They could use the average (so ST 11, DX 12, HT 13 gives Physical 12), average weighted by point cost, lowest value, or some other formula or statistical notion of the GM's choosing.

If realm scores themselves will be rolled against, govern skills, serve as prerequisites, or otherwise matter in play, the GM needs to take a rigorous approach to them. When using the attributes-and-subattributes method, subattributes should be treated much like secondary characteristics under the standard rules, with reductions subject to a "floor" and counting against any disadvantage limit; it might be best not to permit reductions, meaning most players will raise a realm score only to the level of the lowest subattribute they want in a realm. For instance, if Physical covers ST, DX, and HT at standard costs, and costs 40 points/level, there *is* a difference between buying Physical 11 [40] and ST 11 [0], DX 12 [20], and HT 13 [20], and buying Physical 13 [120] and ST 11 [-20], DX 12 [-20], and HT 13 [0]; the latter character is simply *better.* If using a formula, "average weighted by point cost" is usually fairest; e.g., ST 11 [10], DX 12 [40], HT 13 [30] gives Physical = (11×10 + 12×40 + 13×30)/(10 + 40 + 30) = 12.25, rounded to 12.

If realm scores have no direct use in play, the GM can permit considerable trading within a realm if using subattributes, or adopt whatever formula seems fun. The realm scores are merely a shorthand for a character's broad capabilities. They're still useful for judging how "good" a hero or party is, but won't affect what anyone can do.

Aspects

Optionally, the GM can classify the most important ways a character can interact with a realm. Each such "aspect" exists in every realm, and implies an attribute in each realm. For instance, if you specify three aspects and have three realms, you'll end up with 3 × 3 = 9 attributes. Common aspects are:

Power: The amount of raw force or influence the character can apply in that realm.

Control: The degree of precision with which the character can apply whatever power they possess in the realm – and also the ability to evade (rather than endure) the power of others and harmful forces in that realm.

Resistance: The character's ability to stand up to the power of others and harmful forces in that realm. This is generally the same as overall fitness in the realm.

Resources: The energy, stamina, or other battery that's depleted by using abilities or being subject to hostile actions in that realm. See *New Resources* (p. 36).

It's almost never logical to use rules similar to *Realms as Attributes* (above) to define aspects as attributes for use in play; aptitude in one realm is seldom linked to aptitude in another in any coherent way. The GM might still calculate aspect scores that cut across realms purely for storytelling purposes. Although these shouldn't affect game play much, *which one is highest* – or *lowest* – may influence NPC reactions. For instance, it would be fair for an NPC who appreciates finesse to react slightly better to people whose best aspect score is Control and slightly worse to those who highest is Power, while someone who values forcefulness reacts in the opposite fashion.

Power Is Nothing Without Control
– Pirelli slogan

Building the Grid

When using aspects with realms, the result is a grid. In a perfect world, each realm has one attribute per aspect. Deciding what these traits do, whether any are secondary characteristics calculated from other scores, how to price them, and what to name them demands considerable creativity. ***Alternate Attributes*** presents substantial advice on all of these matters that can be reworked for this purpose.

Example: For a campaign of modern-day action and intrigue, the GM picks the realms Physical, Mental, and Social, and the aspects Power, Control, Resistance, and Resources. Making use of *External Social Attributes* (p. 26), *What's In a Name?* (p. 32), and *New Resources* (p. 36), the resulting grid is:

	Physical	***Mental***	***Social***
Power	Strength (ST)	Knowledge (KN)	Social Standing (SS)
Control	Dexterity (DX)	Intelligence (IN)	Charisma (CH)
Resistance	Health (HT)	Will (WL)	Ego (EG)
Resources	Hit Points (HP)	Sanity Points (SP)	Resource Points (RP)

ST, DX, HT, and HP mean what they do in the standard rules (and HP start equal to ST). Standard IQ is split into KN for skills and dice rolls related to knowing things, and IN for those tied to figuring things out. Will is divided into WL for Fright Checks and Will-based skills, and EG for resisting Influence skills, brainwashing, interrogation, and so on. CH controls all social skills. SP are a new resource that start equal to EG (in another realm!), SS is a new external social attribute, and RP start equal to SS and are a resource *and* external social attribute. The GM plans to spread skills across DX, HT, KN, IN, WL, and CH. Some of these things are squeezes – is knowledge *really* power, is a person's ego more a social construct than a mental one? – but close enough is good enough.

The GM shouldn't feel compelled to hammer square pegs into round holes to achieve perfection. If certain realms lack some aspects – or have more than one attribute for an aspect – that's fine. For instance, the GM might prefer a single Will score for resisting all non-physical threats (mental, social, and supernatural), so the Resistance aspect might be defined only in the Physical and Mental realms, the latter understood as "not Physical."

Things can exist *outside* the grid if they don't fit nicely onto it. The GM can do this to maintain a pleasing grid when an aspect doesn't exist for every realm, or implies several attributes for a realm; to accommodate a trait that involves multiple realms or aspects; or to add something that isn't part of *any* realm or aspect.

Example (cont'd): On the grid above, there's no equivalent to Per, FP, Basic Speed, or Basic Move. The GM consults *Perception Reformulated* (pp. 17-18) and goes with Per = (IN + HT)/2, rounded down; Per is simply "off the grid." Going with FP = HT as in the standard rules seems fine; FP amount to an extra score that exists only in the Physical realm, effectively giving that realm a split Resources aspect. Finally, rather than mess with formulas, the GM opts to take the advice of both *Independent Basic Speed* (p. 23) and *Independent Basic Move* (p. 23); Basic Move is another extra score in the Physical realm, in effect, while Basic Speed affects how fast the character reacts in *all* realms.

Why Human Norms?

Like changing *limits* on basic attributes and secondary characteristics (*Setting Limits,* p. 22), choosing a zero-cost *starting value* different from the human norm can be seen as exploring "alternate attributes" even when otherwise sticking to the ***Basic Set.***

Giving everybody superior or inferior stats to begin with amounts to running a higher- or lower-powered game in which character-point totals measure deviation from *the campaign's* baseline rather than the ***GURPS*** baseline. As "the ***GURPS*** baseline" is a human being, altering the basic array of starting scores also offers a way to simplify record-keeping in games where nearly every PC and important NPC *isn't* human: If everyone has the same racial template, why not eliminate it and assume that race's abilities as the norm?

This does raise a few considerations:

● *Exporting characters is harder.* ***GURPS*** is designed to facilitate cross-world and cross-genre gaming. Characters coming from a campaign with nonstandard baseline assumptions have to be adjusted; e.g., someone who paid 0 points for ST 11, DX 11, IQ 11, HT 11 is underpriced by 60 points in a standard game. Of course, *everything in this supplement* creates similar issues! This happens even without ***Alternate Attributes;*** notably, High TL and Low TL need adjusting when moving between campaigns at different TLs. But unlike straight-up repricing or a half-dozen new attributes, this change is subtle and easily missed, as characters look the same at a glance and traits with [0] next to them are often overlooked.

● *There are hidden ramifications.* ***GURPS*** tacitly assumes baseline attributes in many places. *Using Skills Without Attributes* (p. B172) is an example: It uses 10, but in a campaign where everybody starts from DX and IQ 11, the GM might prefer to use 11 with that rule. And if there are racial templates in the campaign, they'll need to be adjusted – in a game where almost everyone is an elf with DX 11 at no point cost, felinoids (p. B261) with DX 11 don't need "DX+1 [20]" and cost 20 points less to play.

● *Secondary characteristics may need reformulation.* If the goal is to adjust basic attributes but *not* secondary characteristics, formulas need to change. Subtract the offset caused by the altered basic attributes. For instance, in a campaign where DX starts at 9, HT starts at 12, but Basic Speed and FP start at the human norms of 5.00 and 10, Basic Speed = (DX + HT)/4 - 0.25 and FP = HT - 2. If the goal is to adjust secondary characteristics, the formula *also* needs to change. *Add* the desired offset; e.g., if attributes are unchanged but everyone starts at FP 12, FP = HT + 2. The GM might even venture into *Reformulating Secondary Characteristics* (pp. 16-23) in ways that depart from the human norm.

● *Limits may need adjustment.* If everyone is human and the shift is a quick way to change power level, the GM may keep the limits on basic attributes and secondary characteristics on pp. B14-18. Those are for humans, though – if the shift facilitates a campaign where everyone who matters is a nonhuman, don't forget to change the limits. For basic attributes, and secondary characteristics with *absolute* limits, add or subtract the offsets; e.g., if everyone starts at IQ 12, maximum IQ, Will, and Per should be 22 instead of 20. Optionally, the limit might change multiplicatively rather than additively; for instance, if everybody starts at IQ 12, this could be seen as ×1.2, increasing the upper limit to IQ 24, instead of as +2, increasing it to IQ 22. Leave *relative* limits on secondary characteristics alone: HP are still limited to ±30% of ST, Will and Per can't be lowered by more than 4, FP are still limited to ±30% of HT, Basic Speed can't be altered by more than ±2.00, and Basic Move can't change by more than ±3.00.

The GM intends to come back to pricing after distributing skills across the attributes, and deciding which tasks and rules are important to the campaign. As a first cut, though, the GM aims to make ST, HT, KN, IN, and CH cost 10 points/level; DX, SS, and Basic Speed cost 20 points/level; WL, EG, Per, and Basic Move cost 5 points/level; and HP, SP, RP, and FP cost 2 points/level.

New Resources

Under the standard rules, HP and FP are consumable quantities to be spent on useful outcomes (like spells and extra effort) and depleted by harmful external effects (such as hazards and attacks). Over time, or with healing, they recover. Some campaigns require more such "resources." Whereas adding most new attributes is a matter of redistributing existing success rolls and skills, resources don't work that way; when adding them, it's important to answer *all* of the following questions:

Is the resource calculated or independent? Some resources start equal to an attribute (e.g., HP = ST and FP = HT) and are adjusted from there using character points; others have a more complicated formula. In cases like these, the attribute(s) involved should be closely related; *Dividing Up Fatigue Points* (pp. 31-32) offers suggestions. A few resources aren't logically related to other scores, and start from a flat 10. Ones most people don't have – say, a barbarian's "Rage Points" or vampire's "Blood Points" – might even start at 0.

Can the resource be spent – and if so, on what? This is of greatest importance for resources inspired by FP, like the Chi Points, Faith Points, Magic Points, Psi Points, etc. mentioned in *Dividing Up Fatigue Points*. These can be spent on particular categories of superhuman abilities and *maybe* related forms of extra effort. But something that works more like HP *might* be spendable in emergencies!

Can the resource be depleted – and if so, by what? Any resource may be subject to depletion by external forces like attacks. This is the main role of a resource inspired by HP . . . but the weird powers a resource fuels might include spells or abilities that can drain or steal that resource when it's otherwise immune to depletion.

What are the effects of low scores? Resources that can be depleted (exclusively or as well as being spent) need bad effects at low values and *worse* effects at 0 and below, and may "spill over" and deplete other resources if they go negative; review *General Injury: Lost Hit Points* (p. B419) and *Lost Fatigue Points* (p. B426) for inspiration. Sometimes, losing any points at all – or too many at once – has a transient effect like *Shock* (p. B419) or *Major Wounds* (p. B420). Resources that exist *exclusively* for spending usually don't stun, slow, or otherwise weaken the character when expended, and in most cases can't go negative; instead, they're simply gone at 0, the "bad effect" of which is being unable to use whatever abilities they fuel.

How does recovery work? Most resources regenerate on their own. Those modeled on FP should do so in minutes, though "one point per 10 minutes" can be tweaked; those that work more like HP should take days, and "one point per day" is also negotiable; and meta-game resources (like the Impulse Points in ***GURPS Power-Ups 5: Impulse Buys***) should recover at a meta-game rate, like "one point per game session." The GM might require a roll for recovery, like the HT roll to heal HP naturally. For resources other than meta-game ones, there may also be abilities that heal missing points or accelerate natural recovery; model these on the relevant spells (like Major Healing and Recover Energy) or advantages (like Healing and Regeneration). Generally, the higher the resource's cost in character points, the higher the point cost to buy abilities that restore it and/or the higher the resource cost to use those abilities. For resources that exist exclusively to be spent, there's the option of saying the resource is normally at 0 but can be temporarily charged up by something like blood-drinking; in that case, the character's score is the maximum *capacity* and the GM must specify which special traits charge it up, and it has a bleed-off rate rather than a recovery rate.

What does the resource cost? For HP or FP reinvented, the standard 2 or 3 character points per level for those traits is a good starting place. Something extremely specialized that can't be spent, only depleted, might cost a mere 1 point/level, while a high-powered resource, like Impulse Points (which can be spent just like character points on powerful meta-game effects!), could cost as much as 5 points/level.

See the earlier discussions of Hit Points and Fatigue Points – particularly *Dividing Up Hit Points* (p. 30) and *Dividing Up Fatigue Points* – for ideas. For a detailed worked example of a HP-like quantity specific to a game setting, see *Radiation Threshold Points* (***GURPS After the End 1: Wastelanders,*** p. 24). Other examples might be Sanity Points that are based on Will, lost to missed Fright Checks (producing similar effects), and recovered slowly over time or by therapy; Blood Points that start at 0, can only be raised by vampires, power vampire abilities, and are restored by Vampiric Bite (p. B96); and Resource Points that start equal to Social Standing (*Combined Status and Wealth,* p. 26), can be spent like money for gear or favors (the GM determines the "exchange rate"), and regenerate by making a monthly job roll against Social Standing.

Doing Away with Attributes

In some cases, *removing* a basic attribute or secondary characteristic (hereafter simply "attribute," to save space) is what's best for the campaign. Reasons for this include:

The attribute is of ***no*** *importance.* If no function of the attribute will ever matter to the campaign – if the GM has no intention of using *any* quantity calculated from it, *any* rule involving it, *anything* it governs at all – the solution is self-evident: Drop the attribute! That way, it won't be cluttering up character sheets.

The attribute is of little importance. If only a minuscule fraction of an attribute's uses will matter to the campaign – or if its uses will arise exceedingly rarely in the adventures the GM intends to run – making the trait cheaper to reflect its diminished utility is a fair solution. Yet whatever its point cost, it's still something that vies for space on character sheets and in the players' minds. Eliminating it can make life easier, though this involves *Keeping What Matters* (below).

There are too many attributes! Perhaps everything the attribute does is important, but the GM realizes that in their zeal to adjust the rules to the campaign, they've created too many scores to keep track of comfortably. Getting rid of some of them isn't a question of them being useless – it's a matter of sanity! In that case, reassigning the important stuff is another variation on *Keeping What Matters.*

A new attribute has superseded an old one. In the process of tweaking attributes to suit the campaign, a new trait may emerge that would logically do the work of a standard one. When this results from renaming an existing score (see *What's In a Name?,* p. 32) or *Dividing Up Existing Scores* (pp. 28-33), the old attribute isn't truly "eliminated." But this could also be the outcome of an ambitious GM reassigning all the skills, rolls, and other rules associated with one or more standard attributes – perhaps even rewriting ***GURPS*** around a whole new array of attributes! – and discovering that everything an attribute used to do is now covered by another trait. That, too, amounts to *Keeping What Matters,* though perhaps from the top down ("Here's a new attribute – what does it cover?") rather than the bottom up ("Here's all the stuff the old attributes handled – what new attributes cover it?").

> *"Does this spark joy?" If it does, keep it. If not, dispose of it.*
>
> *– Marie Kondo*

Keeping What Matters

If a function of an attribute is likely to matter in the campaign, it must be retained somewhere, usually meaning other attributes. While some choices are more logical than others, there are no objectively "right" or "wrong" ones (although there's no guarantee your players won't abuse the heck out of your decision, or revolt!) . . . if you really want to eliminate ST and shift everything it does to DX and HT, go ahead. What *is* important is to ensure that *every* use is either ruled out as irrelevant to the campaign or assigned to another trait. This is an arduous process that involves combing through the ***Basic Set*** for mentions of the attribute – consider using a digital version that lets you computerize the search.

Below are lists of *many* things to look out for. These are extensive but not exhaustive! They're useful even if not eliminating attributes – consider rereading the next few sections when using *any* idea in ***Alternate Attributes*** to change the array of stats.

Attribute Rolls

The most fundamental uses of attributes that fall on the 1-20 scale for humans are success rolls against those scores. The GM who's certain that a roll won't crop up in the adventures they have planned can ignore it – but they must ensure that any roll that *is* likely to arise is assigned to an attribute. To save time searching, and to have a ruling on hand for overlooked rolls, it's often best to think in terms of *categories* of rolls. Some examples of both specific rolls and general categories:

ST: Many rolls related to grappling – takedown, pin, choke, break free, etc. – in some cases including "ranged grapples," as with bolas and lariats. • Rolls to yank a stuck pick or harpoon out of a victim. • Any Contest that pits people against one another in a brute-force struggle (like arm wrestling).

DX: Many close-combat rolls, including those for evading foes, readying weapons, and hitting with unarmed attacks if you're unskilled. • Rolls to avoid falling down or being knocked down (such as after suffering knockback). • Rolls to disentangle yourself from things like bolas and nets. • Rolls for athletic tasks for which skills are optional: catching, jumping, throwing, etc. • Rolls for *Pushing the Envelope* (p. B395). • Rolls to avoid fumbling and accidents – including the effects of the Klutz disadvantage.

IQ: Rolls for *many* advantages and perks – including Animal/Plant/Spirit Empathy, Autotrance, Blessed, Clairsentience, Common Sense, Deep Sleeper, Discriminatory Hearing/Smell/Taste, Eidetic Memory, Empathy, Healing, Intuition, Jumper, Mimicry, Mind Control, Mind Probe, Mind Reading, Oracle (for interpretation), Possession, Precognition, Psychometry, Racial Memory, Snatcher, Telecommunication, Visualization, and Warp – which the GM might sort by type for quicker reassignment to different attributes. • Rolls to recover from mental stun. • Comprehension rolls following Sense rolls. • Rolls tied to languages (for Broken comprehension, accents, etc.). • Rolls for quickly learning (p. B292) and maintaining (p. B294) skills. • Rolls for dirty tricks (p. B405) and otherwise outsmarting others. • Almost any roll required by the rules or the GM to "know," "locate," "realize," or "deduce" something that doesn't depend on a skill; e.g., rolls to find hirelings and jobs (pp. B517-518).

HT: Rolls for disadvantages, including Addiction (if dependence is physiological), Alcoholism, Bad Back, Cold-Blooded, Combat Paralysis, Epilepsy, Fragile, Insomniac, Light Sleeper, Motion Sickness, Revulsion, Susceptible, and Timesickness; for these and all other attribute-dependent disadvantages, the GM may want to adapt *Self-Control for Mental Disadvantages* (pp. B120-121) *instead* of reassigning the roll to an attribute.

● Rolls for endurance, whether at long tasks (p. B346) or for physical feats like running and swimming. ● Rolls to resist a wide range of attacks and hazards: disease, poison, acid in the eyes, harsh environments, locks and chokes in close combat, Afflictions, attacks modified with Side Effect (including an arsenal of high-tech and ultra-tech weapons), and myriad spells. ● Arguably most important, rolls to avoid injury effects such as stun, bleeding, unconsciousness, and death – including accidental injury through things like extra effort. ● Rolls to recover from effects in the previous two categories, especially to naturally heal HP, recuperate from unconsciousness and crippling, and survive mortal wounds. ● Aging rolls. ● Rolls to use Metabolism Control – and Fit and Unfit give very broad HT-roll adjustments to reassign.

Will: Most important are rolls to resist external manipulation, especially by Influence skills and supernatural abilities (foremost among them magic like Mind Control spells). ● Fright Checks – eek! ● Rolls required by advantages: Channeling, Neutralize, Single-Minded (to avoid ill effects), True Faith, and any attack enhanced with Malediction. ● Rolls for a few disadvantages: Absent-Mindedness (to remain focused), Addiction (if dependence is psychological), Guilt Complex, and Manic-Depressive. ● Rolls for most sorts of extra effort. ● Rolls to avoid distraction, such as during Aim and Concentrate maneuvers, and when subjected to dirty tricks.

Per: Sense rolls (of course!) – which can show up in the darnedest places, such as for target discrimination (p. B390) and when fighting unseen opponents (p. B394). ● Rolls for sensory advantages such as Danger Sense, Detect, Magery (to sense magic), Oracle (for discovery), Scanning Sense, and Vibration Sense. ● Rolls to notice your surroundings if you suffer from Absent-Mindedness.

As well, any of the above attributes might be the basis of a job roll (p. B516). If the campaign offers jobs defined in ***GURPS*** books, the GM should vet these to ensure they don't call for rolls against traits that no longer exist.

Direct Applications

Other attributes are direct, numerical ratings of the character's capacities, limits, or resources – not numbers to roll against. Here, too, the GM can drop anything that isn't germane to the campaign, but must reassign anything that *will* matter. These things are fewer in number and easily checked:

HP: By-and-large a resource used to absorb injury. Unless the campaign presents *no* risk of physical harm, this must be assigned somewhere . . . but in a game about spirits, AIs, etc., HP may be replaced by an equivalent resource that's depleted by *nonphysical* attacks (see *New Resources,* p. 36).

FP: This resource can be spent on cinematic combat rules, extra effort, and numerous special abilities (spells, cinematic martial-arts skills, exotic and superhuman advantages, and so on), and depleted by physical exertion, privation, a long list of hazards (disease, poison, temperature extremes, etc.), and some attacks (including strangulation, ultra-tech weapons, and various spells and abilities). *Dividing Up Fatigue Points* (pp. 31-32) discusses ways to allocate these aspects, and FP per se might go away if the only facets that matter aren't actually "fatigue."

Basic Speed: The sole *direct* use is to determine someone's place in the combat turn sequence. It's therefore necessary to reassign this function only if there will be combat – although this might look more like computer hacking or ritual in some campaigns, and thus fit a mental or spiritual attribute better than a physical one.

Basic Move: This rates movement speed, and is necessary if people will be running around. If movement won't come up at all (a very unusual campaign!), cut the function and with it the whole attribute.

> *I am a minimalist. I like saying the most with the least.*
>
> *– Bob Newhart*

Skills

If the attribute being removed governs *any* skills – which is true of DX, IQ, HT, Will, and Per (but not of ST, HP, FP, Basic Speed, or Basic Move) – apply *Reassigning Skills* (pp. 41-44) to find new homes for them. The same goes for techniques that default directly to attributes (here, ST *is* used, for Neck Snap). It isn't important to move every skill that a retired attribute controls to the same destination, however. Especially when *Dividing Up Existing Scores* (pp. 28-33), the GM might replace an attribute with several related ones specifically to spread weakly related skills across multiple controlling attributes!

Changes here also affect skill defaults to attributes; e.g., if IQ is retired in favor of a wide selection of narrower mental attributes, and Fast-Talk is reassigned to the new Charisma attribute, the former IQ-5 default becomes a Charisma-5 default. Defaults to attributes a skill isn't based on needn't change if the attributes used for those defaults remain. In particular, Piloting is *based on* DX but *defaults to* IQ-6.

Finally, consider situations where a skill governed by an attribute that's being kept would be used with an attribute that's being cut, as per *Using Skills with Other Attributes* (p. B172); e.g., the IQ-based weapon skill roll to clear a jammed gun. The GM can *probably* get away with deciding this on the fly, but it never hurts to be prepared.

Prerequisites and Cutoffs

Attribute minima are sometimes required to buy traits or use gear correctly. If such an ability or item will appear in a campaign – but the attribute won't – these functions must be reassigned. Some important cases:

ST: This is used directly as a cutoff for effective weapon use. It's *highly unlikely* that ST won't be used in a campaign where weapons appear! If the GM wants that, however, they must decide whether to enforce minimum ST for weapons – and if so, using what attribute.

IQ: Many spells require a minimum level of IQ (and sometimes other scores). This must be reassigned if IQ goes away – and though it's *easiest* to assign this to the same attribute that governs spells, that isn't mandatory. For instance, if IQ is replaced with a Magic attribute for spells and a Knowledge attribute for book-learned skills, it would be fair to rule that Magic governs spell levels but Knowledge is used for prerequisites.

HT: Rapid Healing requires a minimum HT, while Hemophilia specifies a *maximum* HT; in a game where characters have a physical existence but not a HT score, the GM might reassign these and similar limits to whatever attribute governs physical wellbeing. Intensive training (p. B293) specifies a HT minimum; if HT goes away, it wouldn't be unrealistic to move this to Will (or whatever replaces Will).

Derived Quantities

Existing secondary characteristics that are kept must be reformulated (*Reformulating Secondary Characteristics,* pp. 16-23) – perhaps made independent (*Independent Secondary Characteristics,* pp. 20-23) – so they don't depend on any attributes being cut. Such thinking applies to anything else derived from an attribute via an equation or table look-up. Examples include:

ST: Determines HP, Damage, and Basic Lift (and BL in turn determines carrying, digging, and lifting capacities, and how heavy a weapon you can parry). ● Determines throwing distance and muscle-powered missile ranges. ● Determines damage needed to do one yard of knockback (ST - 2). ● Determines equivalent weapon weight of unarmed attacks (p. B376). ● Even determines how much you can drink (p. B439)!

DX: Helps determine Basic Speed. ● Determines unarmed parry for those who lack unarmed combat skills (3 + DX/2).

IQ: Determines Will and Per. ● Sets required Complexity of computers for beings with Digital Mind (IQ/2).

HT: Determines FP, and helps determine Basic Speed. ● Determines breath-holding time (pp. B351-352). ● Often used in formulas to determine how long the bad effects of afflictions and similar unpleasantness endure (e.g., "20 - HT minutes"). ● Determines the temperature comfort zone for those with Temperature Tolerance.

HP: Numerous injury effects use thresholds based on HP (like "2×HP" and "HP/2") – including special cases for traits like Berserk, Supernatural Durability, and Unkillable, and hostile effects that work like the Symptoms enhancement (common for disease and poison). ● Instrumental in calculating damage in slams and falls. ● And HP/10, dropping fractions, is used as a multiplier for shock (p. B419) and healing (p. B424).

FP: Some fatigue effects use thresholds based on FP (like "2×FP" and "FP/2").

Basic Speed: Determines Basic Move and air Move. ● Used to calculate Dodge (3 + Basic Speed).

Basic Move: Used in formulas for water Move, long-distance hiking speed, jumping distance, and step in combat. It's extremely unlikely that these will matter in a campaign where basic ground movement won't . . . but if the GM dreams up a way, dropping Basic Move means these other functions must be reassigned.

Filling the Gaps

When slogging through the process of *Keeping What Matters* (pp. 37-39), even the best GM is bound to miss a few things. What do you do when the adventure is rolling along nicely and suddenly, a rule arises that *is* pertinent to the campaign but involves a trait that was eliminated because it *wasn't?* Fortunately, the ***Basic Set*** offers several ways to handle rolls that feel like attribute rolls but aren't, which can be adapted here.

Frequency of Appearance (p. B36): Advantages that involve NPCs conveniently (or inconveniently!) intervening call for a roll of 3d against 6, 9, 12, or 15, with 9 being the baseline. Something similar is reasonable in circumstances where a roll against a deleted attribute is needed for *social* success. The GM must decide whether 9 is too stingy – but in a campaign where, say, IQ doesn't exist because all that matters is fighting, it isn't hard to accept that the average warrior would have IQ 10 and no more than a point in an Influence skill under the standard rules, buying a level of 8-10.

Unreliable (p. B116): This limitation means the affected advantage requires a roll to work – but instead of relying on an attribute, the odds are a flat 5, 8, 11, or 14 or less on 3d. This kind of thing is fair whenever an *advantage* requires a roll against a nonexistent attribute. The suggested score is 11 in most cases – but the GM may prefer to adapt the next method (self-control rolls) to beneficial traits and go with 12.

Self-Control for Mental Disadvantages (pp. B120-121): Disadvantages that produce effects similar to external afflictions resisted by Will or HT often use a roll of 3d against a fixed 6, 9, 12, or 15 instead, with 12 being the "default." This approach works well in situations where a roll against a missing attribute is effectively a *resistance roll.* The recommended target is 12, but the GM is free to use 6 for "very hard," 9 for "hard," 12 for "average," and 15 for "easy" resistance.

Using Skills Without Attributes (p. B172): Skill rolls that aren't obviously based on any attribute assume a base of 10. This is suitable where a roll against an absent attribute is required to succeed at a *task* – even an unskilled one. Again, the GM may desire some variation; skills vary from Easy to Very Hard, with each step giving ±1. Thus, it would be fair to use 8 for "very hard," 9 for "hard," 10 for "average," and 11 for "easy" actions.

Rather than use a different number in each case, the GM might note that the human average for basic attributes is 10 – and that 10.5 is the average of the 9, 11, 12, and 10 suggested above – and always use that. This is the recommended technique in situations where attributes show up in formulas. For scores that use *half* the scale of attributes, like Basic Speed and Basic Move, go with 5.

N/A?

In some cases, specific categories of beings don't have an attribute – their score is given as "N/A" ("not applicable"). Many ***GURPS*** supplements do this for AIs, machines, spirits, undead, and other entities that aren't alive in the biological sense but share a world with PCs who are. When the PCs and most important NPCs lack an attribute, that trait might not appear on character sheets even if it still exists in the campaign, making it marginally topical for ***Alternate Attributes.***

The meaning of N/A generally falls into one of two cases:

Zero: If the capacity *would* be useful but not only do such beings not have it, they *can't* have it (it's a taboo trait; see p. B261), treat "N/A" as 0 for point-cost purposes. That's -100 points for ST or HT, or -200 points for DX or IQ; when a secondary characteristic is 0 regardless of basic attributes, sell it down to 0 for the usual points. Common examples include machines without sentience (IQ 0), and immaterial spirits or diffuse elementals (ST 0) – but more rarely, creatures that are more like objects might have "DX N/A" or "Basic Speed N/A." If values greater than 0 are extremely rare campaign-wide, it's less cluttered to redesign the character sheet to leave out the attribute and simply write "IQ 0 [-200]" or "ST 0 [-100]" in the "Disadvantages and Quirks" section (or "IQ 10 [0]" or "ST 12 [20]" or whatever in "Advantages and Perks"). This is a cosmetic change.

Irrelevant: If the capacity wouldn't be useful – or if the upsides and downsides of its absence balance out – treat "N/A" as being worth 0 points, just as if the trait were left at its baseline value. This is almost exclusive to FP for constructs (like golems), machines, undead, and so on, which don't have FP to spend . . . but which are also *immune* to FP drains and all their ill effects. Leaving the FP box off character sheets for important characters can save space, but this isn't just cosmetic; it's a fundamental shift in how the score works.

Gap-Filling Perks and Quirks

Some gamers may want their alter-egos to be more capable than the above guidelines recommend in rare situations where attributes normally irrelevant to the campaign briefly matter. As circumstances like this might *never* come up if the GM did their homework, it would be reasonable to sell "insurance" of this kind as leveled perks. Similarly, being unusually incapable isn't worth much if the quality is unlikely ever to matter, but the GM may allow it as a quirk.

This approach differs from making attributes extremely inexpensive in two regards. First, *most* character sheets won't be cluttered with unnecessary scores; only players who want unusual qualities will have them, which is much the way Charisma, Susceptibility, Talents, etc. work in the standard rules. Second, it's easier to "sell" asymmetry between positive and negative levels to players when the quality in question isn't expected to have the kind of uniform progression that's usual for attributes.

New Perk: Contingency Competence

You are unusually capable in a capacity that's so dramatically or game-mechanically unimportant to the campaign that the GM has eliminated the associated attribute. In the (unlikely) situation where that attribute is needed despite the GM's best efforts to stamp it out, you do better than most. This perk comes in levels, exactly like an advantage, and you must specialize in a particular missing attribute. Each level gives you +1 to that score.

Example: In a gladiatorial campaign where the GM has eliminated IQ, Will, and Per, and rebased all the skills they govern, fighters might be permitted to buy Contingency Competence (IQ). Should a rare social situation arise where they must roll 9 or less to change the *lanista*'s mind or 12 or less to see through a lie – or if a weapon-maintenance task comes up that involves a roll of 10 – a warrior with Contingency Competence 3 (IQ) would roll vs. 12, 15, or 13, respectively.

Contingency Competence is mutually exclusive with Improbable Incompetence (below) for the same attribute.

New Quirk: Improbable Incompetence

You are unusually inept in an area that's so irrelevant to the campaign that the GM has done away with the associated attribute. If that attribute somehow comes up anyway, you're at -3. You must specialize in a particular missing attribute.

Example: In that gladiatorial campaign without IQ or skills based on it, a gladiator might have Improbable Incompetence 3 (IQ). Instead of rolling at 9, 11, 12, or 10 for an IQ-based task, they'd use 6, 8, 9, or 7.

This is similar to the Incompetence quirk (p. B164), with the penalty adjusted from -4 to -3 to reflect the fact that this is one step down for frequency of appearance, Unreliable, or self-control.

Improbable Incompetence is incompatible with Contingency Competence (above) for the same attribute.

Chapter Three
Fallout

Basic attributes and secondary characteristics are such fundamental rules that playing around with them inevitably generates extra campaign-preparation work. *Keeping What Matters* (pp. 37-39) offers a checklist of things to look out for, but a few topics merit deeper discussion.

Reassigning Skills

Perhaps the single biggest task faced by the GM who juggles attributes is deciding which attributes now govern what skills, and what effects the changes have on attribute costs.

New Homes for Old Skills

There's no objective, mechanical way to reallocate skills to attributes. This is an exercise in GM ingenuity. But redefining the attributes the campaign uses and then distributing important skills among them can both eliminate overloaded or unbalanced attributes and remove tenuous links: Is HT *really* a good choice for Sex Appeal? Guns and Sewing are DX/E, but is it *logical* that gifted seamstresses make great snipers?

Below are some patterns to consider: potential attributes, along with lists of skills that might suit them. As Chapter 2 shows, there are countless possible attributes – these are but examples. Those with unusually few or many skills (the average is around 22) are excellent candidates for merging or splitting up, respectively. The GM is unlikely to want them *all*.

As there's no "one true way" to do this, several skills appear on multiple lists. Some broad skills (Games, Hobby Skills, Professional Skills, etc.) could fall on almost *any* list, and so are omitted. And the GM is free to disagree with any of these calls!

Agility

Consciousness of and the ability to control each part of the body in coordination with every other – that is, DX of the body *as a whole*. Balance and movement speed depend on this, though the GM might split those things off.

Possible Skills (47): Acrobatics, Aerobatics, Aquabatics, Axe/Mace, Bicycling, Boating, Body Sense, Boxing, Brawling, Broadsword, Cloak, Combat Art/Sport, Dancing, Flail, Force Sword, Force Whip, Free Fall, Garrote, Jitte/Sai, Judo, Jumping, Karate, Knife, Kusari, Light Walk, Main-Gauche, Monowire Whip, Mount, Net, Parachuting, Polearm, Rapier, Riding, Saber, Shortsword, Smallsword, Spear, some Sports, Staff, Stage Combat, Stealth, Sumo Wrestling, Tonfa, Two-Handed Axe/Mace, Two-Handed Flail, Two-Handed Sword, Whip.

Athleticism

Capacity to push the body's limits and efficiently use its capabilities (like ST, DX, and Basic Move in the standard rules). This *could* be seen as HT, but when discussing skills, there are places where the two don't always line up.

Possible Skills (19): Bicycling, Body Control, Breath Control, Climbing, Flight, Flying Leap, Forced Entry, Free Fall, Hiking, Immovable Stance, Jumping, Lifting, Power Blow, Push, Running, Skating, Skiing, *many* Sports, Swimming.

Awareness

Noticing details – especially fine, easily missed ones. This *might* be the same thing as Perception, but not necessarily. Some skills based on scores other than Per fit as well.

Possible Skills (19): Blind Fighting, Body Language, Criminology, Detect Lies, Diagnosis, Esoteric Medicine, Fishing, Intelligence Analysis, Lip Reading, Observation, Prospecting, Scrounging, Search, Shadowing, Speed-Reading, Survival, Tracking, Urban Survival, Weather Sense.

I can never train myself in all the skills I want. And why do I want? I want to live and feel all the shades, tones and variations of mental and physical experience possible in my life.

– Sylvia Plath

Coordination

Specifically *hand-eye* coordination, meaning using the hands to aim ranged weapons, operate vehicle controls, respond to danger, and otherwise react rapidly and precisely to external input. This *could* encompass reflexes – here we assume so, but the GM is free to divide further.

Possible Skills (27): Beam Weapons, Blowpipe, Boating, Bolas, Bow, Crossbow, Driving, Dropping, Fast-Draw, Fire Eating, Gunner, Guns, Innate Attack, Lance, Lasso, Liquid Projector, Parry Missile Weapons, Piloting, Shield, Sling, Spear Thrower, Submarine, Teamster, Throwing, Throwing Art, Thrown Weapon, Zen Archery.

Craftiness

A faculty for deception – the term "criminal intelligence" gets used – is sometimes distinguished from *Social Intelligence* (p. 43), and may encompass things the standard rules don't deem IQ-based.

Possible Skills (18): Acting, Brainwashing, Camouflage, Counterfeiting, Disguise, Fast-Talk, Forgery, Holdout, Mimicry, Propaganda, Shadowing, Smuggling, Stealth, Strategy, Streetwise, Tactics, Traps, Ventriloquism.

Creativity

The ability to dream things up and present them to the world, typically identified with artistic potential. It's anyone's guess whether such imagination is related to the spark of *technical* invention and *scientific* innovation; here we assume it isn't.

Possible Skills (17): Architecture, Artist, Dancing, Group Performance, Jeweler, Leatherworking, Makeup, Musical Composition, Musical Influence, Musical Instrument, Performance, Photography, Poetry, Public Speaking, Sewing, Singing, Writing.

Fine Motor Ability

Small-scale manipulation with the fingers or similar extremities, important for fine work and feats of legerdemain.

Possible Skills (13): Fast-Draw, Filch, Holdout, Jeweler, Knot-Tying, Leatherworking, Lockpicking, Pickpocket, Sewing, Sleight of Hand, Surgery, Symbol Drawing, Typing.

Flexibility

Suppleness is important to many skills but the be-all, end-all for few, and has less to do with precise control than the other facets of what's normally considered DX.

Possible Skills (5): Climbing, Erotic Art, Escape, some Sports, Wrestling.

Intrapersonal Intelligence

Knowledge of oneself. The associated skills are generally Will-based in the standard rules – but not always!

Possible Skills (9): Autohypnosis, Body Control, Body Sense, Breath Control, Dreaming, Meditation, Mental Strength, Mind Block, Philosophy.

Knowledge

Every skill involves *some* knowledge, but here we mean knowing about culture, the humanities, and collective human wisdom – anything academics pursue that wouldn't better be judged *Logic* (below). The GM might want to make this different from memory, but it's often hard to separate the two.

Reassigning Advantages and Disadvantages

Many advantages require attribute rolls to use; IQ rolls are most common, but there are HT rolls for Metabolism Control, Will rolls for Neutralize, Per rolls for sensory abilities, and so on. Similarly, disadvantages sometimes allow rolls against attributes to avoid their effects: DX for Klutz, HT for Combat Paralysis, Will *and* Per for Absent-Mindedness, etc. For lists of such traits, see *Attribute Rolls* (pp. 37-38).

When swapping around attributes, it's important to account for these things. This is a matter of ensuring that any advantage or disadvantage that depends on a deleted, renamed, or divided-up attribute isn't left dangling – it's assigned to an attribute that replaced or was split off from the score that formerly controlled it, or one the GM deems a good fit. Be warned that this creates work, if not as much as *Reassigning Skills* (pp. 41-44).

An alternative for GMs who prefer to devote energy to other things is to apply *Self-Control for Mental Disadvantages* (pp. B120-121) to disadvantages that use attribute rolls, and to adapt it to advantages as well. As usual, a target number of 12 – whether to avoid a disadvantage or exploit an advantage – is the baseline. Adjust this for any built-in modifiers; e.g., the Per-5 and Will-5 rolls for Absent-Mindedness are against 12 - 5 = 7, while the Will+3 roll to ignore pain that High Pain Threshold allows is against 12 + 3 = 15. There's no need for adjusted rolls to use 6, 9, 12, or 15 as for self-control, but the GM might prefer that because those "steps" are familiar. If so, the GM can always go high, low, or nearest (so 9, 6, or 6 for Absent-Mindedness), perhaps favoring the PCs in higher-powered games but not in lower-powered ones.

Contributions of such rolls to the point values of attributes are fairly treated as negligible. For one thing, while a decent-sized skill list is almost universal, not everyone has advantages or disadvantages that depend on attributes under the standard rules. For another, these traits are nowhere near as numerous as skills. Thus, changing the rolls such traits use doesn't affect attribute prices.

That said, rethinking *common* attribute dependencies can make under- or overvalued attributes seem fairer at a given price. For instance, if a new Psyche attribute governs mainly cinematic martial-arts skills and magic, it's in danger of becoming a "dump stat" for characters without those abilities. Making it the roll to use Channeling, Danger Sense, Empathy, Intuition, True Faith, Visualization, and similar advantages might keep players honest.

Possible Skills (24): Anthropology, Archaeology, Area Knowledge, Connoisseur, Current Affairs, some Expert Skills, Geography, Heraldry, some Hidden Lore, History, Law, Linguistics, Literature, Occultism, Philosophy, Psychology, Religious Ritual, Research, Sociology, Speed-Reading, Symbol Drawing, Teaching, Theology, Writing.

Logic

Applying theory (or empirical or phenomenological rules) to analyze patterns, derive conclusions, and make predictions – the essence of math, science, business, espionage, military tactics, and many other dark arts. In some campaigns, it might be worth dividing this into scientific and nonscientific spheres to separate skills like Astronomy, Mathematics, and Physics from ones like Accounting, Market Analysis, and Tactics.

Possible Skills (30): Accounting, Alchemy, Astronomy, Bioengineering, Biology, Cartography, Chemistry, Computer Programming, Cryptography, Diagnosis, Economics, Engineer, some Expert Skills, Finance, Forensics, Geology, Intelligence Analysis, Market Analysis, Mathematics, Metallurgy, Meteorology, Paleontology, Pharmacy, Physics, Physiology, Poisons, Research, Strategy, Tactics, Weird Science.

> *I'm sure the universe is full of intelligent life. It's just been too intelligent to come here.*
>
> *– Arthur C. Clarke*

Naturalistic Intelligence

Intuition regarding plants and animals. Some theories of intelligence suggest that *life* sciences – including medical science – aren't linked to *Logic* (above), and place those here, too. The GM might prefer to split the intuitive from the scientific, or "nature" from "healing."

Possible Skills (19): Animal Handling, Bioengineering, Biology, Diagnosis, Falconry, Farming, First Aid, Gardening, Herb Lore, Naturalist, Packing, Pharmacy, Physician, Physiology, Riding, Surgery, Survival, Teamster, Veterinary.

Practical Intelligence

The ability – crucial to society – to get workaday tasks done, which often draws more on tenacity than on originality. This sometimes overlaps *Technical Ability* (below).

Possible Skills (17): Carpentry, Cooking, Electrician, Electronics Repair, Farming, Fishing, Freight Handling, Gardening, Housekeeping, Machinist, Masonry, Mechanic, Packing, Sewing, Smith, Soldier, Typing.

Social Intelligence

Awareness of others – desires, motivations, and ways of thinking, and how to exploit these. Treating this as a gift separate from general intelligence enjoys significant support in psychological research. Even if general IQ is kept, a Charisma attribute might govern *this* function.

Possible Skills (26): Acting, Administration, Body Language, Carousing, Criminology, Detect Lies, Diplomacy, Enthrallment skills, Fast-Talk, Fortune-Telling, Gambling, Gesture, Hypnotism, Interrogation, Intimidation, Leadership, Merchant, Panhandling, Politics, Propaganda, Psychology, Public Speaking, Savoir-Faire, Sex Appeal, Streetwise, Teaching.

Technical Ability

Although fiction often conflates an aptitude for using technology with the ability to dream it up and know the underlying principles (*Logic,* above), these traits appear to be loosely related or unrelated in real life. In a campaign with a lot of tech, the GM might want different *kinds* of technical ability.

Possible Skills (29): Airshipman, Armoury, Artillery, Battlesuit, Computer Hacking, Computer Operation, Computer Programming, Counterfeiting, Diving Suit, Electrician, Electronics Operation, Electronics Repair, Explosives, Forgery, Forward Observer, Hazardous Materials, Lockpicking, Machinist, Mechanic, Navigation, NBC Suit, Photography, Scuba, Seamanship, Shiphandling, Spacer, Submariner, Traps, Vacc Suit.

The Mystical

Understanding *chi,* psi, mana, gods, spirits, and so forth might be its own monolithic trait in some settings. In others, each category of powers could rate its own attribute; see *Power Talents* (p. 27). We have no way of knowing! Skills here are likely to be found on other lists in worlds where this stuff is a solid "maybe."

Possible Skills (29): Alchemy, Blind Fighting, Body Control, Breaking Blow, Dreaming, Enthrallment skills, Esoteric Medicine, Exorcism, Flying Leap, Fortune-Telling, Herb Lore, some Hidden Lore, Immovable Stance, Invisibility Art, Kiai, Light Walk, Mental Strength, Musical Influence, Occultism, Power Blow, Pressure Points, Pressure Secrets, Push, Ritual Magic, Symbol Drawing, Thaumatology, Throwing Art, Weird Science, Zen Archery.

Skill Contributions to Attribute Cost

When determining how skills affect attribute costs, it's wise to be familiar with the assumptions of the ***Basic Set.*** These include some judgment calls:

- Counting skills with mandatory specialties as *one* skill but counting grouped skills *individually;* see p. B169.
- Omitting skills that could be based on practically *anything,* especially Hobby Skills and Professional Skills.
- Quietly ignoring spells, of which there are more than 800 by the most conservative count! These outnumber all IQ-based skills and even all other skills by an overwhelming margin, which the ***Basic Set*** sweeps under the carpet of Magery, Power Investiture, etc.

On the following table:

Base: The attribute governing skills.
Number: How many skills that attribute governs.
Percentage: What percentage of total skills that attribute governs, rounded to one decimal place.

Contribution: The (somewhat arbitrary!) point cost these skills contribute to the cost per level of their governing attribute in the standard rules, after subtracting contributions from all other sources. This is clearest for DX and IQ, whose only contributions consist of secondary characteristics and skills; although it's true that raw DX and IQ rolls exist, these are marginal when you consider that rolls against skills based on them can usually replace them, and when compared with HT and Will rolls (which are collectively "all rolls to avoid bad stuff"), or with Per rolls (synonymous with "Sense rolls," which are extremely important). For HT, Will, and Per, this is calculated by comparison to the 25 points that the 235 DX-*and* IQ-based skills contribute in total to DX *and* IQ:

Contribution = 25 points × (Number/235), rounded to one place

Contribution/Skill: Contribution in points divided by number, rounded off. The ***Basic Set*** seems to value DX-based skills more highly than IQ-based ones.

Base	*Number*	*Percentage*	*Contribution*	*Contribution/ Skill*
DX	91	33.5%	15	0.165
IQ	144	52.9%	10	0.069
HT	13	4.8%	1.4	0.106
Will	12	4.4%	1.3	0.106
Per	12	4.4%	1.3	0.106
Total	*272*	*100%*	*29*	–
Average	–	–	–	*0.106*

There's no obligation to retain *any* of this with a revised set of attributes, but the GM may want to be aware of it for a variety of reasons.

For one thing, the GM might want to reprice DX and IQ as if their skill contributions were equally valuable, which would replace the first two rows in the table:

Base	*Number*	*Percentage*	*Contribution*	*Contribution/ Skill*
DX	91	33.5%	9.7	0.106
IQ	144	52.9%	15.3	0.106

The upshot of this would be DX priced at more like 15 points/level, IQ closer to 25 points/level. That's a good first step when distributing the functions of these attributes among new attributes.

Another goal could be to distribute skills more evenly among attributes and calculate the price effects. For instance, if the GM adopts *six* attributes that control skills, it might be worth at least *trying* to assign 45 (roughly 272/6) skills to each one, making the average skill contribution to an attribute 45 × 0.106 = 4.77 points, or approximately 5 points. Perfection is likely unattainable, but shooting for the target and living with "skills contribute 5 points to an attribute" may be good enough.

These sorts of determinations can be less work than they seem if the campaign doesn't actually *use* every skill – and few do! The GM might find it useful to make a list of the subset of skills that exist in the campaign and redo the above math to assist with pricing attributes.

Separating Skills from Attributes

The GM with no fear of quick judgment calls – or a deep fear of *Reassigning Skills* (pp. 41-44) – has an alternative, suggested by *Using Skills with Other Attributes* and *Using Skills Without Attributes* (both p. B172): Record only relative skill level and base each skill roll on whatever attribute seem fitting in the situation at hand. If no attribute leaps to mind, add relative skill to 10 (or a larger or smaller number for an easier or harder task) and roll against that.

For instance, a criminal with DX 13, IQ 11, HT 12, Will 12, Per 13 wouldn't list:

Carousing (E) HT+1 [2]-13
Guns (Pistol) (E) DX+2 [4]-15
Intimidation (A) Will [2]-12
Streetwise (A) IQ+1 [4]-12
Urban Survival (A) Per-1 [1]-12

They'd list:

Carousing (E) +1 [2]
Guns (Pistol) (E) +2 [4]
Intimidation (A) 0 [2]
Streetwise (A) +1 [4]
Urban Survival (A) -1 [1]

The GM might *usually* use DX with Guns (13 + 2 = 15), but could prefer IQ for technical problems (11 + 2 = 13), Per to recognize a rival's weapon (13 + 2) = 15, etc. A base of 10 (10 + 2 = 12) might be the go-to number if the GM decides a roll is needed to determine whether the gangster is familiar (p. B169) with a random pistol.

It would even be possible to run a campaign where attributes *don't* affect skill rolls. In that case, everybody would list a level based on whatever the GM thinks is fair – not necessarily 10. Consulting *Power Level* (p. B487), the GM might use 8 for "feeble," 9 for "average," 10 for "competent," 11 for "exceptional," 12 for "heroic," and so on. In a 150-point game, the above list might become:

Carousing (E) [2]-13
Guns (Pistol) (E) [4]-14
Intimidation (A) [2]-12
Streetwise (A) [4]-13
Urban Survival (A) [1]-11

When using these options, it's best not to worry *much* about detailed effects on attribute costs. One possibility is just to ignore skills when pricing attributes. Another is to use the math that *Skill Contributions to Attribute Cost* (pp. 43-44) offers for distributing skills evenly among attributes to give *every* attribute the same cost contribution from skills. For instance, if using eight attributes, 272/8 = 34 and 34 × 0.106 = 3.6 points – so each attribute gets 4 points/level from skills.

The Question of Point Budget

You've chosen a set of basic attributes and secondary characteristics that fits your campaign perfectly. You've defined formulas for the latter (see *Reformulating Secondary Characteristics,* pp. 16-23, and *Adding Secondary Characteristics,* p. 24). You've associated all important skills, and attribute-dependent advantages and disadvantages, with suitable scores . . . or cut the Gordian Knot by *Separating Skills from Attributes* (p. 45), making the advantages and disadvantages independent of attributes (as explained in *Reassigning Advantages and Disadvantages,* p. 42), or both. Finally, you've priced all attributes and characteristics – and advantages similar to them (*Attribute Costs and Advantages,* p. 11) – to be fair or pleasing (*Aesthetic Pricing,* p. 15) in light of your decisions. That leaves a big question:

After all these adjustments, how many points do the players need to create characters who can tackle the adventures that lie ahead?

For instance, suppose the campaign uses six basic attributes priced at 15 points/level in place of the standard two (ST and HT) at 10 points/level and two (DX and IQ) at 20 points/level. Does the same point budget that worked for a "heroic" or "legendary" game *still* work? Some might say "no," pointing to the fact that the cost of +1 to everything is now 6 × 15 = 90 points instead of (2 × 10) + (2 × 20) = 60 points. Yet there are holes in that argument, because not all characters need every attribute equally, and some are built around advantages, a few key skills, or whatever instead. *Reassigning Skills* (pp. 41-44) could render certain character types easier or harder to optimize, and thus less or more expensive. And if advantage costs have changed – or some advantages been promoted to attributes (pp. 23-27) – *those* decisions factor into the equation, too.

> *Everything is worth what its purchaser will pay for it.*
>
> *– Publilius Syrus*

Some options make things even hairier! Consider *Non-Uniform Progressions* (p. 6): If attributes use a steeply increasing progression, character concepts that require a high level in one of them require more points than those that call for modest improvements to everything, while if ST is cheaper per level at extreme levels, muscular PCs don't need as many points as, say, brainy or sprightly ones. Likewise, setting more or less generous maximums (*Setting Limits,* p. 22) on scores that govern skills can mean ultra-competent characters hit the "wall" where they must improve individual skills instead of efficient attributes later or sooner than under the standard rules – which isn't equally relevant to everyone. And shifts to starting attribute levels (*Why Human Norms?,* p. 35) can offset the campaign power level . . . and even if they don't, such as when DX starts at 9 and HT starts at 12, *some* characters (in that example, those who emphasize HT) might come out ahead, others behind.

All of these parts interact in ways that would lead to a complicated, likely recursive model if we tried to answer the question mathematically. And even the best such model couldn't fully account for *player psychology* – PCs tend to be outliers and corner cases that "break the game" even when using the standard rules! Thus, matching point budget to power level is best approached in other ways.

Bottom-Up Budgeting

One solution is to do what ***GURPS*** GMs have been doing for years with the standard rules: Pick a point budget – the suggestions in *Power Level* (p. B487) are as good as any – and have the players create their characters using the campaign's special ground rules (we're discussing attributes, but just about every GM changes *something*). Then review everybody's skill levels, reaction modifiers, movement speeds, active defenses, damage output, and other measures of game-world effectiveness. If they seem reasonable for the campaign, great! If they feel too high or too low, follow this advice:

Be prepared to change the point budget. If almost *every* PC seems too good or too bad in a wide range of unrelated areas, the issue is the budget. For each character: Look at what seems too high or too low, and by about how much; identify which traits are the main culprits for that; and estimate how many points to add or subtract in those areas to solve the problem. Then figure out the *average* adjustment required, apply this to the budget, apologize to the players, and politely ask everybody to revise their character to conform to the new budget. But if one character is skewing the average . . .

Beware of outliers. Don't assume the point budget is the problem if *one character* is overwhelmingly effective or ineffective. That can happen even under the standard rules, and is a sign that one of the players is unusually good or bad at character optimization or finding and exploiting loopholes. In that case, handle it just as you would in any game: Ask an exploitative player to rein in their excesses, or give a less-adept one some help creating their character. But be sure the aberration is clearly attributable to a *player* – if there's an obvious weakness in the campaign's ground rules, skip to the next pointer.

Stay open to rethinking your rules changes. If the values that seem out of whack are in a few narrow, easily identified areas – and *especially* when your initial point budget works for all but a few character types – it's preferable to tweak the troublesome rules instead of the budget. A confluence of factors may have led to the undesirable outcome, but if there's a simple, obvious fix, go with it! That may mean returning to the standard rules, moving even further away from them, or altering something you initially left alone. For instance, if it's too easy to be a combat god by raising a single attribute, move some of what it does elsewhere.

Avoid Iterative Hell. You may need to alter a rule or the point budget more than once to get things right. That's fine! But doing so too often is annoying for everyone. Zoom in on a comfortable power level *quickly.* If your intuition as a GM fails you, ask the players to offer input – or vote – on what needs fixing.

All of which said, there are times when you *know* effectiveness won't track points the same way it does in the standard rules. A few examples among many:

- Adding fistfuls of attributes, and spreading out skills and tasks evenly among them. A given level of effectiveness requires improving more scores, which costs more points than raising just DX or IQ, or even DX *and* IQ. This is especially true if these attributes aren't any cheaper (or are more expensive!) than DX and IQ.
- Using increasing *Non-Uniform Progressions* (p. 6). In higher-powered campaigns, characters aiming for the in-game effectiveness that high attributes normally bring need more points than in the standard rules, even if you *don't* add a lot of (or any!) attributes.
- Adopting *Independent Secondary Characteristics* (pp. 20-23). Characters who don't get "free" secondary characteristics from their basic attributes need additional points to buy these things.

If you don't *want* to see high basic attributes and secondary characteristics, and things that depend on them, and perhaps changed the rules specifically to avoid that, that's fine. Warn the players and leave the budget alone.

On the other hand, if you have no problem with high-powered characters, and altered the rules to balance attributes against one another and/or to make their relationships with other traits (secondary characteristics, advantages, skills, etc.) more logical, take a page from *Top-Down Budgeting* (below) and adjust the point budget *before you start*. This can save the time and frustration of repeated iterations.

In principle this can cut in the other direction – attributes are overall cheaper, so PCs need fewer points – but that's much less likely. More rules in ***Alternate Attributes*** raise the costs of attribute-linked capabilities than lower them.

Effectiveness

Bottom-Up Budgeting (pp. 45-46) and *Top-Down Budgeting* (below) allude to the idea of "effectiveness." That isn't character points but the capacity to accomplish things in the game world. And *that* is rated less by attributes themselves than by what they help determine. There's no simple measure of effectiveness, but here are some things the GM should look at when examining characters with the aim of adjusting the point budget or when building templates with the goal of setting that budget:

Odds of success. The success rate at rolls against skills or raw attributes is a key measure of power. See *Probability of Success* (p. B171) and *Choosing Your Skill Levels* (p. B172) to get a feeling for this – and remember, attributes figure prominently into skills unless *Separating Skills from Attributes* (p. 44).

Damage. This is a big deal if there's combat. In low-TL games, it's a direct function of ST; in high-TL games, it's a matter of looking at the ST requirements for the types of weapons that are acceptable and accessible (handguns aren't rifles!). This gets complicated by good-quality gear and advantages like Claws, Striking ST, and Weapon Master; it gets *very* complicated if the PCs can have spells or superpowers. But setting a damage level and working backward to ST or whatever fills its role goes a long way toward maintaining balance.

Toughness. Depending on the campaign, numerous special traits (from Hard to Kill through natural Damage Resistance to Unkillable) can affect this. If these extras mostly have standard prices, focus on keeping HT and HP – or their replacements – in the range you're ready to deal with.

Mobility. Barring unusual abilities, this is mainly a question of Basic Move or its equivalent, and relatively easy to account for when revising the rules.

Active defenses. Work backward from Dodge to get Basic Speed – and from Parry and Block to get combat skill levels, and from those, the attributes that govern them. These make a *huge* difference to character survival in violent situations.

Reaction modifiers. If Charisma becomes an attribute that grants a reaction bonus, decide what bonus you're ready to deal with and make sure this attribute is priced and/or limited to stay near that range. Don't forget that if social skills are based on it, characters optimized to be good at those will have high scores and thus high reaction bonuses – even if the attribute is expensive.

Top-Down Budgeting

Not every gaming group is comfortable with adjusting the campaign's ground rules – and revising the PCs – several times before the game begins. Sometimes it's desirable to get things (more-or-less) right before anybody spends a single point. That's exactly what game designers do . . . and in a way, any GM who's altering the rules *is* a designer!

As previously stated, this is difficult to do mathematically. Yet there are tricks:

Know thy players. Many gaming groups gravitate toward a particular spread of basic attributes and secondary characteristics – at least on average. If your players do that, especially in the kind of campaign you're running, start by pricing that array of scores in the standard rules. Then price the nearest equivalent in the changed rules. If you want PCs to be about as effective as always, add the difference between the two totals to the starting budget you'd normally use for the game; again, *Power Level* (p. B487) works just fine. Feel free to apply *Aesthetic Pricing* (p. 15) if you're attached to multiples of 25, 50, or whatever.

Example: Suppose you regularly run 150-point ***Mysteries*** campaigns. You've noticed that PCs average around ST 10 [0], DX 12 [40], IQ 12 [40], HT 11 [10], HP 10 [0], Will 12 [0], Per 14 [10], FP 11 [0], Basic Speed 6.00 [5], Basic Move 6 [0], for 105 points – though perhaps nobody has *exactly* those scores. If you split Charisma (CH) off from IQ and price it at 10 points/level, declare all secondary characteristics independent, and otherwise keep standard costs, an equivalent set is ST 10 [0], DX 12 [40], IQ 12 [40], CH 12 [20], HT 11 [10], HP 10 [0], Will 12 [10], Per 14 [20], FP 11 [3], Basic Speed 6.00 [20], Basic Move 6 [5], for 168 points. If the goal is to keep the same effectiveness, add the 63-point difference to the point budget and run a 213-point campaign – or a 200- or 225-point one, if you like that better.

Different Strokes?

Can you apply different options in ***Alternate Attributes*** to different character types?

Superficially, the answer seems to be "no." Any roleplaying game – not just ***GURPS*** – enables artifacts, environments, societies, and myriad other elements to interrelate. This is particularly important for the *characters* who put the "role" in "roleplaying." They interact with not only all those things but also one another, dealing, deceiving, fighting, and so on, and no rules are as fundamental to them as attributes. It would be hard to run an adventure, or discuss it afterward, if everybody were speaking a different language!

Yet even under the standard rules, not everything that could be created as a character (if a strange one!) *really* uses the same rules for attributes: Creatures with SM +1 or greater, or No Fine Manipulators, pay fewer points for ST. The Amphibious, Aquatic, and Semi-Aquatic traits alter the formulas for Basic Move and water Move. All machines list "FP N/A," and thus functionally lack the FP characteristic; vehicles lack DX, IQ, Will, and Per, too, but have Hnd and SR; most other gadgets have no human traits beyond HT and HP, but require special ones like a computer's Complexity.

In theory, then, the GM can do this provided there's a real difference in kind – not just warriors vs. wizards, or humans vs. elves. This should be indicated by a marker that costs points (like Amphibious) where the results are favorable, has zero cost (like Semi-Aquatic) where they're a tradeoff, or gives back points (like Aquatic) where they're unfavorable. It can be defined on an attribute-by-attribute basis or for an entire category of beings.

For anything being taken away, review *N/A?* (p. 40). Remember that "zero" is distinct from "irrelevant." Where something is irrelevant, define how to handle its absence when beings who lack it encounter rules for it. For an example, see *Machines and Fatigue* (p. B16).

For attributes added for certain categories of beings, realize that entities who lack those scores have an "N/A"! If that's a drawback, treat it as zero and award extra points; if instead it just changes how the game treats them, explain how. In effect, *everyone* has *every* attribute the campaign uses for *any* character type – but only some traits have values other than "N/A." It's best to trade things off one for one and have everybody's set of attributes cost the same; e.g., everyone has four basic attributes, two at 10 points/level, two at 20 points/level.

If different classes of beings have the same secondary characteristics but use different formulas, make sure that whatever formula is used, the basic attribute investment to raise the characteristic is the same in all cases. Otherwise, things can get unbalanced.

If not everybody uses the same cost progressions – or if some beings have independent secondary characteristics and some don't – the game surely *won't* be balanced unless those paying less face a significant drawback (like No Fine Manipulators for ST).

But nothing is completely out of bounds. Create "typical" members of each group and make sure they have the same point totals, much as in *The Question of Point Budget* (pp. 45-47). If they don't, adjust costs, formulas, starting values, etc. so they do. If this means AIs end up paying 100 points/level for IQ because it's their one-stop shop for dominance and they lack all other attributes, so be it.

Know thy campaign. If you have an idea of the "average" character you want to see in your campaign, you can use the same process. The difference is that instead of analyzing past PCs, you start with the capabilities you're ready to accept as GM. You might look at attributes themselves or the effects they govern. For instance, if you want average melee damage to be 2d, and most everyone in the setting carries balanced, one-handed swords that do swing+1, that implies swing 2d-1 and ST 13; if most people use handguns, and you'd like to avoid "hand cannons" that do more than 3d damage, all of which require ST 12+, allow for ST 11. Individual characters can still exceed average effectiveness in some areas, but that means sacrificing something else.

Know thy templates. If you're using templates that spend the campaign's full point budget (as in ***Action*** or ***Dungeon Fantasy***), adapt these to the revised rules – ensuring that they retain appropriate melee damage, Hit Points, Move, skill levels, and so on after considering *all* rules changes – and then add up the point costs. Point totals are likely to vary from template to template, but you can cut them all back to the level of the cheapest to curb power level, top them all up to the level of the most costly to enhance it, or adjust them all to the average. Players who don't use templates get a point budget equal to the chosen template cost.

Build *your templates.* While creating templates from scratch is a lot of work, it isn't necessarily *more* work than adapting existing ones to heavily revised rules. Crafting new templates for the campaign under the rules you intend to use in play determines the point budget automatically. As above, the goal is to ensure that PCs built using the templates have acceptable levels of effectiveness, but this is also true for templates intended for the standard rules – you're just achieving that using a different set of assumptions. Aim for the same point total for each template; ***GURPS Template Toolkit 1: Characters*** offers tips for this. Again, players who don't use templates get a budget equal to this.

No method is perfect, of course. Approaches that involve average attributes leave out the effects of changes to advantages, skill dependencies, and so on; you may still need to revise, as in *Bottom-Up Budgeting* (pp. 45-46). Procedures that entail templates give the GM the ability to tweak *everything* to arrive at a desired level of effectiveness, but they add considerable work – and players who don't use templates (and even some who do) may find loopholes. The GM should be on the lookout for loopholes while working on the templates, and consider adjusting the rules to close the worst of them.

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Names and attributes must be accommodated to the essence of things, and not the essence to the names, since things come first and names afterwards.

– Galileo Galilei