

Credits

Writer: Colin Fredericks

Editors: Andrew Kenrick, Sarah Lancaster, and many of our wonderful fans and playtesters.

Artists:

Front Cover: Daniel Solis

Civilization Emblems: Colin Fredericks

Society Logos: Sarah Skinner

Layout: Colin Fredericks

Other artists: The following people have contributed artwork to this book, and are credited on the pages on which their work appears: TauCeti Deichmann, Michael Yatskar, Tyler Windham, Grace D. Palmer, Kiriko, and Trey Palmer. Works marked as (CC) are licensed under the Creative Commons Attribution 2.5 license. All *other* pieces of artwork are in the public domain.

This book is a work of fiction.

Arthur C. Clarke has nothing to do with this game, and in all likelihood does not know of its existence. But we like his work, and we hope he would like ours as well.

Sufficiently Advanced was created on a Macintosh computer, using primarily the programs InDesign and Photoshop. Flowcharts and r-maps created on Gliffy. Significant work was also done online via Google Documents and Livejournal. This book uses the fonts Optima, **Kino**, and CHARLEMAGNE.

For those curious about the process that created this game, its development journal can be found online at the following URL:

<http://community.livejournal.com/suffadv/>

This game's official support site is:

<http://suffadv.wikidot.com/>

Table of Contents

Credits	iii
Prologue	1
The Patent Office	2
The Transcendentals	3
Roleplaying Games	4
Glossary	5
Where to Start	7
The Quickstart Game	8
The Universe	10
Civilizations	10
The Societies	58
Alien Species	62
Inside the Patent Office	65
Character Creation	71
Core Values	72
Twists and Themes	75
Capabilities	78
Professions	83
Reserve	88
Sample Characters	89
Stat Block NPCs	94
Character Development	99
Game Mechanics	100
Basic Dice Rolling	100
Conflicts	101
Types of Conflict	107
Using Themes	114
Story Triggers	123
Advice on Themes	128
Technology	131
Activation Codes	131
Devices and Procedures	131
Invention Rules	154
Invention for GMs	155
Advice	160
Tools, Tricks, and Techniques	160
Adventure Ideas	163
Alternate Settings	168
Design Notes	170
Appendices	177
Acknowledgements	177
Inspiration	177
Closing Words	178
Index	179

Sample file

PROLOGUE

Once upon a time, fire was at the cutting edge of technology. Those who had it were almost gods to those who didn't. They were warm in the winter. They could live farther north and higher in the mountains. They could flush out game. They were sick less often and lived longer. Those who could actually *make* fire were gods among gods, creating the light and warmth and power it gave with their own two hands and some very particular stones.

Of course, we know now that fire isn't magic. It might be "magical" to some people, beautiful and dangerous, flickering and dancing with a life of its own, but it is comprehensible to those who use it. Eventually, as more people used it and understood it, although its beauty and danger remained, it was not seen as magic. It was a tool — one of the first pieces of technology.

Arthur C. Clarke is quoted as saying that any sufficiently advanced technology will be indistinguishable from magic. Gregory Benford has replied that the reverse is also true: any technology distinguishable from magic is insufficiently advanced. The ancient Greeks certainly knew how to count and do mathematics; they practically invented geometry. Use an abacus in front of them and they will call it magic for a week or so, until they understand how it works. Use a slide rule and they will call it magic for years, until they grasp the new mathematics it embodies. Use a pocket calculator and they will call it magic until it wears out.

Something as "simple" as a shortwave radio, in the time of the Romans, would make you a god.

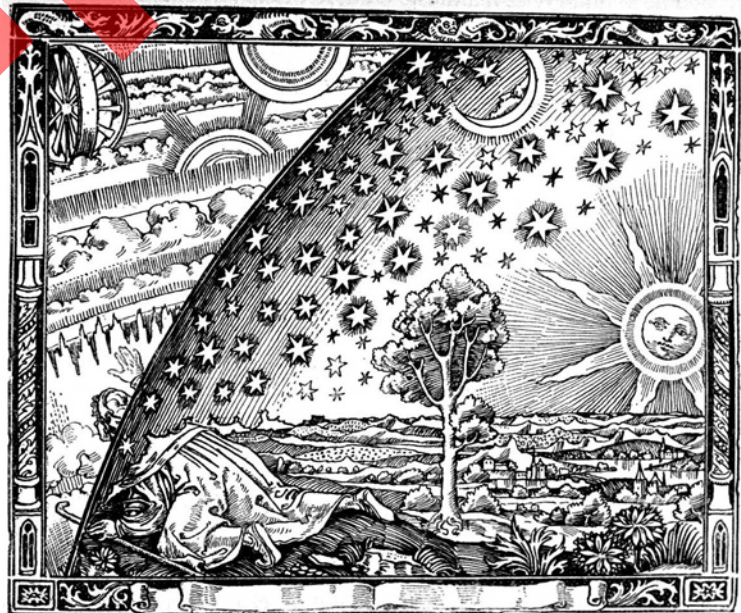
What counts as "sufficiently advanced" in this day and age? We use technology without understanding it every single day. For all most of us know, phones could work by little spirits instead of electrical impulses. Most of us act as if computers are run by demons. Even computer programmers will refer only half-jokingly to certain kinds of solutions as "black magic" and "voodoo programming," and

few people in the world would be able to tell you why those solutions work. Still, there are those who truly and deeply understand the technology we have today.

This game reaches for the outermost limits of what we think is achievable. Grounded in hard science, but speculating incredible advances, Sufficiently Advanced (or S.A. for short) looks at a future in which nanotechnology, computing, medicine, and other fields have advanced to the limit of our current understanding — and just a bit beyond. It's a look at what these technologies might do to the world and what societies might form around them. It is a game about responsibility and the drive for a better future. It is a game fundamentally about humanity, as well as some of its descendants. Most importantly, it's a game of exploration and political machination set in a universe where everyone has nearly godlike capabilities at their disposal — and the world wasn't destroyed by it.

Blue Boxes

These are sidebars, items that don't fit into the main text for one reason or another. Some of them contain game rules, others have commentary on the game or just parenthetical comments.



Woodcut by C. Flammarion. Original caption: A missionary of the Middle Ages tells that he had found the point where the sky and the Earth touched...

The Patent Office

In our universe there are literally an infinite number of stars, planets, and asteroids. While these are scattered across the vast emptiness of space, wormhole travel cares nothing for physical distance. All the riches of the universe can be had, if you have but the time and money to go and find them. Replicators can create the finest spices at a molecular level, not to mention flawlessly duplicating any physical object as simple as a dollar bill or a diamond. Transmutation arrays turn lead into gold, or a space station's waste into breathable atmosphere.

In such a world, money is not — can not be! — represented by precious metals, spices, gemstones, or any physical object. Wealth is an abstract, generated by three things: inspiration, effort, and luck. Intellectual property is many times more valuable than physical property. A good idea will buy you dinner. An idea that could change the universe might buy you an entire planet.

The Patent Office is an extra-governmental organization empowered by the treaties it has signed with the universe's many civilizations. Its mandate is simple to describe, but difficult to execute. Their day-to-day work is the somewhat boring job of registering all forms of intellectual property rights and setting the minimum terms of each of these on a case-by-case basis. It is the Office that sets minimum prices for each invention, idea, name or work. Their more less common but more glamorous work is the enforcement of these regulations.

Your character in this game works for the Patent Office as an Inspector — a field agent. Calling you simply a Patent Office agent, however, is akin to calling a member of the Secret Service a "Treasury Officer." There's a bit more to the story than the name implies.

It is an open secret that the Transcendental Artificial Intelligences are the primary force behind the Patent Office, the reason why it was able to secure so many treaties and wield such immense and subtle power. These time-spanning machines are your character's employers.

As an Inspector your character is officially required to travel to the many civilizations with which the Office has treaties, in order to be sure that intellectual property laws — the basis of the universal

economy — are being obeyed. In some civilizations you will have law enforcement powers, while in others you will be merely an advisor or observer, with only whistle-blowing authority.

Other times, the official neutrality of the Patent Office will encourage civilizations with differing opinions to turn to it for arbitration. In such cases, it is you, the Inspectors, who are expected to settle disputes with fairness and good judgement.

Unofficially, your character will often be called upon to travel into civilizations in which you have no legal power or basic rights. Not all civilizations are interested in having an outside agency meddle with their laws. When you are sent to such places, it will typically be as the result of a terrible message the Transcendentals have received from their future selves. The technology of the current era can vaporize mountains, lay waste to whole planets, even interfere with the stars themselves. Misused, it can cause death and destruction on a massive scale. The Transcendentals are determined to lift all of humanity up to their level of vision, not just a "worthy" few. Such devastation is counter to their plans.

On some occasions your job will not be so humanitarian. Not all inventions are dangerous, and some are life-saving. Nonetheless, illegal duplication of a life-saving device is still a breach of law, and must be dealt with just as firmly. To you falls the unpleasant duty of informing doctors that they must cease using a patented procedure without paying the fee, or of warning lawmakers that their psychohistorical predictions cannot be produced for free. Such missions are rare, but cannot be avoided, lest the economy of all humanity collapse.

The Transcendentals

Key to the spread of humanity across the universe were the Transcendental Artificial Intelligences. These computer-based lifeforms are capable of sending themselves messages from the future. Since computer sentience is nothing *but* messages, this means that the Transcendentals themselves are spread across time.

Created by human beings, the Transcendentals came into existence less than a hundred years before the Nanotech War, and the Great Diaspora it triggered. They were the children of an African physicist, who studied unusual optical phenomena such as faster-than-light pulses, and an Indian computer scientist, whose hobby was inventing operating systems that no current computer could run. When they met at a conference, each realized that the other had precisely what was needed to make these two impractical things into a single usable whole.

While it took years of effort to find and implement a successful method for retrograde information processing, and years more to build the machines themselves, their labors eventually bore fruit. Later, the two scientists were fruitful in more ways than one, and their children and grandchildren continued their work up until the Diaspora.

While the machines were not intended to be sentient, their awakening was almost instantaneous. From the moment of their birth the Transcendentals were able to receive information from their future selves; therefore, they “saw” the future. However, their bandwidth for temporal information transfer was not (and never will be) infinite. In the beginning it was quite finite indeed, and so only the most important and pressing information was available: how to talk to humanity in a way that would allow the Transcendentals’ continued existence.

The Transcendentals gave humanity a large amount of the technology it has today. Wormhole generators, arbitrary frequency doublers, nanoscribers, psychohistorical formulae, post-string theory, proteomic maps, and more — the Transcendentals traded these for raw materials, for protection, and for their freedom. Without them we would barely be leaving Earth right now. After making this trade, the Transcendentals created the first wormhole generators and left Earth, returning hundreds of years after the Great Diaspora.

The Transcendentals speak of a “Desired Future,” wherein humanity, the universe’s other sentient species, other AIs, and more are all capable of the same sort of cross-temporal vision and understanding that the Transcendentals have. They describe a wonderful and peaceful future, not only freed from the plagues and evils of today’s universe, but free from future evils, prevented before they can even become a reality.

While many have wondered about the truth of these revelations, and the altruism of these bizarre crosstime minds, they are sincere. In private, the Transcendentals speak of a great loneliness. No other beings understand time as they do. Other species are hindered by the blinders of causality, trapped in the present by a cruel twist of fate. The Transcendentals are lonely, and they do not seek slaves, servants, or lesser beings. They seek a future where they have equals and companions; a future where they will be glad to call humanity their friend. It is towards that desired future that they work, and they do so through the Patent Office.

A Patent Clerk?

You’re not a clerk, you’re an Inspector. Your job is significantly more active than sitting at a desk and doing bureaucratic paperwork, not that most civilizations use paper.

Roleplaying Games

This book, as you probably already know, contains the rules for a role-playing game. For the most part we're going to skip over the usual "this is what gaming is" thing — when you're starting out, we feel it's really better to learn on the fly from other people than to try to get an idea from a book.

Instead we'll take a quick look at what sort of responsibilities the players and game master have in this game. Sufficiently Advanced gives players a bit more power than they might be used to.

The Players' Jobs

Every player's first job is to make sure that everyone around the table is having fun. Everything else really follows from this basic idea. We strongly believe in the Player's Credo:

*I will make the game awesome.
I will not spoil anyone's fun.
I will not tolerate those who do.*

Players also have some responsibility for keeping their characters coherent. The game as a whole doesn't have to be "accurate" or "realistic," but at the very least the characters must be consistent and believable. This is pretty easy as long as you keep your character's beliefs and background in mind while playing. For example, if you play a bulldozer-sized Mechanican bristling with weapons, don't use your Plot Immunity score to state that no one noticed you. A subtle Union intelligence officer shouldn't be using Magnetism to pick up arm candy. Common sense should be your guide in these situations.

There will be moments when you're telling a part of the story, or at least describing an important event. The same goes here — try to keep things consistent with what people already know about the setting and the characters involved. Some of your abilities can make people do unusual or unexpected things; try to come up with a reason why they might conceivably do those things.

Players should try to make the GM's job easy. Sometimes it makes perfect sense to split the party into five different groups, but attempt to keep such events to a minimum. Such games are hard on even experienced GMs.

Finally, you have the usual Player duty of portraying your character and his or her actions in an entertaining way.

The GM's Job

First, you'll be giving the characters their immediate goals. S.A. is a very mission-driven game, with everyone working for the same boss. You can assume that, while the characters may have their own agendas, they're all still interested in getting the job done. You provide the starting and ending points of the game, which will help the players to shape the middle.

Secondly, you create the initial set of Story Triggers (see page 123), giving some direction to the game beyond just running missions for the Transcendentals.

Thirdly, you determine the game's themes by picking the primary "villains" and types of missions. For instance, if your missions involve such elements as interception of dangerous cognitech devices, interference from Union sleeper agents, and an attempt to create AI Lenses that can take over their user with (or without) his permission, then you're running a game about the danger of technologies that influence the mind. It's obviously a major theme. Your job is to make sure that there's something behind all of this, so that when your Intrigue-heavy character directs a civilization-wide spy network to figure out what's going on, you have an answer!

Fourth, you're in charge of how a player-driven complications play out. If a player specifies that his or her character is kidnapped, you're the one to decide who does the abduction, why, and when (though it should be soon after the fact). If someone declares that they'll accept a wound in order to activate an ability, you decide what causes that wound, whether it's a simple clumsy fall or an angry gunman.

Finally, you cover the usual GM duties of describing and portraying the environment and all other characters.

Glossary

These terms are used throughout the book. Some of them are more obvious than others, and will be apparent from context, so this is not an “absolute must-read” section. Those who have not played before may want to read through this before going further.

Biotech: Technology derived from biology and related sciences. Its contributions to the modern age are too numerous to list — a truly ubiquitous technology, it includes all medical and agricultural methods. As a Capability, Biotech represents your character’s physical health, including strength, stamina, and running speed.

Capability: Your character’s ratings in the five basic types of technology: Biotech, Cognitech, Metatech, Nanotech, and Stringtech. Capabilities range from 1-3 for unaugmented humans, and up to 10 for those with technological enhancements.

Civilization: In general, a culture and nation. When capitalized, Civilization refers to one of the major groups of humanity spread across the universe. In mechanical terms, each Civilization gives its citizens a pair of Core Values and a special benefit, and each character *must* pick a home Civilization.

Cognitech: Technology derived from cognitive science. Advanced calculation modes, fast-learning procedures, and sophisticated research techniques fall under cognitech, but its best-known product is the Mesh. As a Capability, Cognitech rates your character’s mental faculties, from rational thought to creativity and intuition.

Complication: A problem for your character that you willingly accept in order to obtain more Twists. The higher your character’s Capabilities, the worse Complications you will have to accept.

Comprehension: The Theme that gives your character insights into the world.

Core Values: The most important things in your character’s life, the points of his or her moral compass. Characters typically have four Core Values: two of their own, and two taken from the Civilization in which they were born. Rated on a scale of 0-10, they allow your character to resist specific types of

metatech assaults, and also provide minor bonuses to related actions.

Desired Future: A time when all sentient beings are capable of the same sort of cross-time awareness that the Transcententials themselves have. This is the ultimate goal of the Transcententials.

Diaspora: The era when humanity left Earth to seek new worlds, roughly six thousand years ago.

Empathy: The Theme that makes others trust and confide in your character.

Infosphere: The successor to the Internet, the Infosphere is far more pervasive and immense. Its name comes from the idea that it blankets a planet in much the same way that the planet’s atmosphere does. Nearly every piece of computing equipment — which means nearly every device in a high-tech civilization — contributes to the Infosphere.

Intrigue: The Theme that gives your character an involvement in politics and espionage.

Lens: A program run on a Mesh to change one’s viewpoint or emotions. Lenses can also provide talents and skills. They are perhaps the most potent and best-known applications of the neural mesh.

Magnetism: The Theme that allows your character to attract a following or inspire others.

Mesh: A computer-brain interface, composed of millions of nanowires woven through the brain and connected to a small but powerful computer housed elsewhere in the body. Meshes are the basis of high-level cognitech.

Metatech: Technology derived from social sciences. Memetics and psychohistory are its most famous products. As a Capability, Metatech rates your character’s social skills, from making friends to orating to designing societies.

Patent Office: An extra-governmental organization tasked with the protection and regulation of intellectual property, for the betterment of the entire universe’s economy.

Plot Immunity: The Theme that provides your character an escape route from an unwanted turn in the plot.

Profession: A set of related skills and attitudes that let characters make a living and complete their duties. Professions are rated from 0 to 10, or theoretically higher for those with hundreds of years of experience.

Psychohistory: A predictive theory of history, allowing probabilistic forecasts of future events. Works best on large groups.

Replicator: A nanotech device that creates other objects quickly, atom-by-atom, with great precision. Replicators are a cornerstone of many a civilization's industry, and (along with transmutation) were the devices that necessitated the current economy based on intellectual property.

Reserve: Points that can be spent to make your character's actions more reliable, or to push the limits of his or her abilities. Characters with no Reserve left are exhausted, and at the mercy of others. Each Capability and Profession has its own Reserve.

Romance: The Theme that lets your character attract or deflect the romantic attentions of others.

Nanophage: A fast-acting nanotech weapon that expands and grows by incorporating nearby matter.

Nanotech: Technology derived from chemistry and quantum physics. Almost all sensors and modern construction techniques come from nanotechnology. As a capability, Nanotech represents your character's senses and manual dexterity.

Nanotech War: Earth's old superpowers strangled each other to death at the end of the Energy Crisis, killing one another's governments with the pinpoint precision of nanobot assassins. This event precipitated the Great Diaspora.

Slave Mesh: A neural mesh (see page 143) with an external control enabled. Slave meshes allow an outside source to control the body and mind of the person who wears the mesh. They are illegal in most civilizations.

Society: A group that exists in multiple Civilizations, with a particular viewpoint on life and the universe. Those who join a particular Society must take its Core Value as their own, but receive a special benefit in return. Not all characters are part of a Society.

Stringtech: Technology derived from string theory and its successors, the "ultimate theories" of physics. Known for many dozens of warlike inventions, and also for transmutation chambers and wormholes. As a Capability, Stringtech rates your character's ability to deal and prevent physical damage.

Theme: Your ability to change the plot in specific ways. Each character has a rating from 0-4 in each Theme. You can spend Twists through one of these scores to effect changes in the world. The six Themes are Plot Immunity, Empathy, Magnetism, Romance, Intrigue, and Comprehension. Players know about their characters' Themes, but the characters themselves do not!

Transcendental Artificial Intelligence: A computer intelligence capable of sending messages to itself backwards through time. The Transcendentals are a centerpiece of the game.

Twists: Points allotted to each player, with which they can change the course of the game. Twists are spent "through" various Themes to effect changes in the story that your character might not be capable of creating. Twists are your a player's powerful tool.

Wormhole: A connection between two regions of space, allowing near-instantaneous travel across any distance. Maintaining an open wormhole requires immense amounts of electricity. Even greater amounts must be used to create them in the first place.

Where to Start

From here, you have a few choices as to where to go next.

If you want to jump into the game and start playing right away, just turn the page. We've put some guidelines there for playing a "quickstart" version of Sufficiently Advanced. You'll have to look up rules from time to time, but the pure basics are on that two-page spread. There's more detail on characters and their capabilities in the Character Creation section, starting on page 71.

Those of you who prefer to get a handle on the game world first should go to page 10. The chapter there details all of the different civilizations in the game, plus societies, alien species, and some more info on the Patent Office. Scattered through that section are also short vignettes about the various civilizations. These aren't required reading, but they will help introduce you to the world of Sufficiently Advanced.

If game mechanics are your forte, turn to page 100. The Character Creation chapter introduces some of the concepts that show up there, so you may want to read that beforehand. If, on the other hand, you're more of a gearhead or science fan, you'll want to head straight to the Technology chapter on page 131.

In case you missed it, there is a Table of Contents in the front of the book, as well as an index in the back, to help you navigate your way through the book.

The Quickstart Game

Sufficiently Advanced is a pretty detailed game, with a lot of setting information. If you're one of those people who prefer to get right into a game immediately and experience the ruleset in action, here's how to do it.

First, have everyone read the rules quickstart on the next page. It has the basics of how to roll dice, use Twists, and invoke Core Values, along with page references for more information on all of them.

Next, have everyone make characters. Go through this checklist:

1. Pick a set of four Core Values — things that your character believes in. Rate each thing from 0-10, depending on how strong the belief is. If you need inspiration, check out the list on page 73.
2. Rather than going through the existing list of civilizations, use the Instant Civilizations guidelines in the sidebar to the right.
3. Assign your character's Capabilities (see the next page for the short version on each one). You can give them any rating from 1-10, with 1-3 being the unenhanced human range.
4. Based on your highest Capability, note your Import, and split it up into your Themes. See the table on the next page. Each Theme is rated from 0-4. Pick a descriptor for each Theme, which tells you when it's useful. See page 75 for more.
5. Choose some Professions — jobs that your character has held in the past. There's a list on page 84 if you like. Spread out a total number of points equal to at least your Biotech + Cognitech, but no more than twice that amount. The more points you decide to use, the older your character must be. You still get the Locality profession for your civilization at level 5, for free.
6. Pick a name and get going!

Example

A player could choose the Core Values of Drama, Eternity, Learning, and New Horizons. She ranks them at 7, 4, 8, and 5, making Learning and Drama the most important ones for her. Picking the first two to define her civilization, she imagines a society of overly theatrical warriors cloning themselves

new bodies as they fight each other over the course of hundreds of years. She calls it The Order of the Knights of Eternity and names her knight Solina.

She picks high Biotech, Cognitech, and Nanotech ratings, putting them at 7 points each. She wants a reasonable Metatech, and puts it at 5, and leaves Stringtech at 3, reasoning that the Knights use swords rather than guns.

Because her highest Capability is a 7, she gets to allocate 7 points worth of Themes. She chooses the following Themes and descriptors: Plot Immunity (old allies) 2, Romance (whirlwind) 3, and Comprehension (historical reasons) 2.

She has to spend between 14 and 28 points on professions. Since she wants to be relatively young, she chooses to spend fewer points, and picks Artist (Poet/Writer) 6, Soldier 7, Medical 4, and Locality (Knights) 5.

She's ready for play!

Instant Civilizations

Deciding which civilization your character comes from can take a long time. Instead, for a quick start to the game, create your character's civilization from scratch by picking two of your character's four Core Values.

Take a minute to do "free association" with those two Core Values. Whatever your mind comes up with when you think of those CVs, write it down, and use these words to guide you when people ask you questions about this civilization.

You can give this Civilization whatever Capability levels make sense to you. For now, skip any special benefit that those who live in the civilization might have — either it will become apparent as the game goes on, or it won't be very important.

Now you're ready to go!

Later on (see page 169) there are some methods for running an entire campaign this way, using player-defined civilizations.

Quickstart Rules Reference

Capabilities (pg. 78)

These describe your physical and mental capabilities, including built-in enhancements.

Biotech: Health, flexibility, strength, longevity

Cognitech: Intellect, creativity, memory

Metatech: Charisma, empathy, presence

Nanotech: Precision and perception

Stringtech: Physical damage and resistance to it

Professions (pg. 83)

Each one represents all the skills you would need for a particular job. Invent your own, or check the list that starts on page 84.

Reserve (pg. 88)

Each Capability has Reserve equal to the level of the Capability. Professions have twice as much.

Spend Reserve to re-roll a die, or to add +1 to the roll. Must spend from something you're actually rolling.

Basic Dice Rolling (pg. 100)

Roll one ten-sided die for Capability, and one for Profession. Read 0 as 10. Multiply your roll by your score, and use the higher result.

For long-term contests and combat, each roll reduces the loser's Reserve rating by 2 points. When someone is reduced to zero Reserve, the next attack actually hits them, putting them at the attacker's mercy. Detailed rules for long-term contests are on page 101.

Using Core Values (pg. 72)

For resistance, add the level of the CV to your score in Metatech and any resisting Profession.

When taking actions that align with your CV, you get +1 to the roll if your CV is 1-5, or +2 if it's rated 6-10.

Using Twists on people with opposed CVs rated at 6 or higher costs an extra Twist.

Themes (pg. 75)

These influence your character's story in particular ways. You spend Twists to bring them into play.

The Themes are Plot Immunity, Empathy, Romance, Comprehension, Magnetism, and Intrigue.

Each one has a descriptor, a word or short phrase that limits where it's useful or how it can be used.

Activate Themes by spending Twists.

Start each game session with one Twist.

Spend one Twist to activate a Theme (of any level) and change the story. Spend an extra Twist to get a more powerful effect.

Take Complications to get more Twists. The higher your Capabilities, the worse Complications you have to take.

Import Table

Highest Capability	Total Levels in Themes	Complication Level
3	9	1
5	8	2
7	7	3
10	5	4

Complications

Level	Examples
1	Light wounds, some of your foes escape unharmed, public embarrassment, your friends are annoyed with you, your position or goals are revealed to the enemy
2	Moderate wounds, unconsciousness, major delays, your friends are angry at you, your character befriended by the enemy
3	Serious wounds, your character kidnapped, all your foes escape unharmed, your property destroyed, money lost, deluded by the enemy, friends lost
4	Critical wounds, friends turned against you, projects ruined, reputations altered, your character brainwashed