Bad thoughts: Cognoweapons

"Is that *it*? A blurry picture and some buzzing noise?"
"I assure you, sir, that this is indeed it. To you and me, it is merely some multimedia. To Mr Holmes psyche, it is a wedge of insanity. In most of the simulations we did it set up a resonance between his guilt and some half-remembered nightmares that gave him severe PTSD."
"It better work. I have paid a lot for this."

The profound advances in cognitive science that achieved such wonders such as uploading, psychosurgery, and uplifting also lend themselves to darker applications. While cognoviruses, YGBM and basilisk hacks are still largely the domain of TITANs and exsurgent infections, transhumanity is unfortunately not too far behind. The main difference between the postsingularity cognitive hacks and current cognoweapons is their specificity. Basilisk hacks exploit weaknesses that exist in most transhuman minds, while the most lethal transhuman cognoweapons have to be fine-tuned to particular minds. This is a fairly expensive process, fortunately making them rare.

The easiest way of constructing a cognoweapon is to employ a psychosurgical "hellcube": a quantum computer running massive numbers of ego simulations, trying to find the weaknesses of an ego using brute force. Hellcubes are rare and costly devices, often running afoul of regulations against mainframes. Not to mention the moral and legal implications of generating a myriad of suffering forks that are nearly instantly deleted, again and again.

A harder way of making cognoweapons is to apply advanced memetics and psychosurgery to design something that is likely to harm an ego. These "handmade" cognoweapons are usually more like damaging memes than sensory stimuli, but can be packaged into unexpected vectors.

These methods require a copy of the ego to dissect, something which is not always easy to acquire. Captured forks are second best, and the worst case scenario is needing to reconstruct a simulacrum of the ego using all available information – mesh postings, surveillance footage, medical data, whatever.

Direct cognoweapons seek to disrupt the ego immediately. A typical effect is to trigger existing vulnerabilities or a stress reaction. These are tactically useful for overwhelming a target, but rarely last long. Indirect cognoweapons aim at long-term damage. They drive egos mad or warp their personality. These are of particular interest for assassinations, since they can slowly erode sanity without being discovered, becoming part of backup copies.

It is generally believed by weapons monitors and conspiracy theorists that several powers have active cognoweapon programs. Cognite is known to research "cognitive defence methods", and it is likely they are pursuing cognitive offence too. Examente and TransCortical have consulted with Direct Action and other security corporations in ways that hint at some projects. While there have never been any cases where a cognoweapon has officially been blamed for the sudden retirement or suicides of key people, suspicions abound. There have even been some accusations

that assassins gunning for oligarchs have been supplied with cognoweapons via Nine Lives Syndicate.

Legally cognoweapons are iffy. The Treaty of Uniform Security clearly states that incapacitating infoware is a serious crime, but it sometimes hard to prove that a cognoweapon is indeed a weapon. It might look just like a nonsense rhyme, and it only harms a single individual for totally idiosyncratic reasons – "how could I know that my ditty would trigger his childhood trauma?" The border between cognoweapons and clever trolling is diffuse, something a good lawyer easily can exploit. Manufacturing facilities on the other hand clearly breach plenty of rules, and authorities who find one tend to stamp down hard.

Firewall is not too concerned with individual cognoweapons, but the prospect of advances allowing general target weapons is worrying. Since the research often is linked to research into basilisk hacks, YGBM and other TITAN weapons it is automatically suspect. Firewall generally tries to sabotage/steal cognoweapon research when it encounters it. It naturally suspects Ozma for doing the same thing while developing their own weapons.

System

A target of a cognoweapon rolls WIL x 3, and if they succeed they resist the effect. A critical success means they have become immune to it. A failure means the weapon affects their mind. Critical failure means +1d10 SV or a more serious version of the weapon effect.

Direct cognoweapons have temporary effects, typically lasting at most a few hours (1d10/2 hours). Indirect cognoweapons infect part of the ego and do one attack per day. Sanity erosion is semi-permanent: until the infection is gone LUC will not return. Indirect cognoweapons need to first succeed in infecting the ego to start acting.

Multiple attacks with the same weapon are possible, but every time the target is exposed to it during a short period resistance increases by +10.

To realize that mental problems are due to a cognoweapon infection requires a Psychosurgery or Psychology roll from an investigator. Indirect cognoweapons can be cured using psychosurgery once they are detected.

Effects

Activate negative ego trait: the weapon can activate or supercharge an existing negative trait. For example, combat paralysis can be activated in non-combat situations, immortality blues can be supercharged into full depression or suicidality, a mental disorder amplified or activated.

Activate derangement: the weapon produces a temporary derangement effect. This is typically one of the minor ones, although if there are other derangements active the effect becomes larger. For example, anxiety might be upgraded to panic.

Increase stress: the weapon produces 1d10 SV mental stress. The target might not know why they feel bad, but they tend to become agitated and frightened.

Sanity erosion: the weapon reduces LUC by 1d10. The target does not notice that anything is amiss, although they might feel slightly odd.

Making a cognoweapon

Building a cognoweapon requires a successful Psychosurgery or Memetics test of the design team (due to the difficulty teams are often used in order to gain teamwork bonuses). The timeframe is about a week.

- Using hellcube: +0
- Using mainframe: -10
- "Handmade": -20
- Based on beta fork: -10
- Based on simulacrum: -20
- Direct cognoweapon: +0
- Indirect cognoweapon: -20
- Slow-acting (an indirect weapon does an attack every week): +0
- Specific effect (activate a particular desired negative ego trait or derangement, such as a weapon triggering a blackout or obliviousness, even if the target does not have the derangement or trait): -10
- Moderate effect (triggers a moderate derangement, give 2d10 SV stress, reduce LUC by 2d10): -15
- Major effect (triggers a major derangement, give 3d10 SV stress, reduce LUC by 3d10): -30
- Subtle (-10 to detect as a cognoweapon, can be taken several times): -10

Vector

In order to attack the ego the cognoweapon needs to be transmitted to it. The vector affects the ease of resisting the attack. The same cognoweapon can be hidden in several vectors, and cognoweapons directed against different persons placed in the same vector.

Effect on resistance roll:
- Petals: -30 (since users must give the drug nanomachines access to their brains, this neatly circumvents most protections)
- Nanotoxin: -30 (the toxin must however first overcome the bodily defenses; roll SOMx2 to resist, with +30 if nanophages are present)
- XP or simspace: -10 (this requires the target to stay in the experience throughout, either willingly or because they are forced to)
- Sensory stimuli: 0
- Meme: +10 (requires a successful memetic design roll to make; weaponized memes are ideas that can spread on their own but trigger bad reactions in the target)

Cost

The cost of the expert labour, access to hellcubes and general illegality of cognoweapons tend to make manufacturing them an Expensive service.

Hellcubes are Expensive+, specialised mainframes intended to analyse egos in quantum superposition. They are very illegal. Normal mainframes are bad enough, but hellcubes would be ideal to run Seed AGI on.

Adventure ideas

The PCs are sent to find and stop the production of cognoweapons at a remote facility. Infiltrating a group of well equipped and amoral psychosurgeons is not the simplest… especially since they have started testing out ways of hardening their minds against their own weapons, making them downright inhuman. The problem might not be the weapons themselves, but that their creators increasingly think that they need to 'cull' transhumanity from vulnerable and unstable cognotypes.

A senior Firewall agent has become victim of a targeted cognoweapon. The real problem is that this likely means someone has gained access to a copy of his ego, a major security breach. The sentinels are sent out to track down the source and make sure the secrets in the ego are kept secret. But what if it starts to look like the source of the weapon was another part of Firewall? Disinformation from the real enemy (who clearly knows too much about the organisation) or a sign that one part of Firewall wants to prevent another part from discovering something?

Cognite has a problem. They have discovered a major vulnerability in their popular Menton morphs (or, to be exact, in the brain structure they have licensed to morph manufacturers) that make them extra susceptible to certain cognoweapons. A product recall would be a massive embarrassment and very costly, yet the vulnerability allows a fairly large subpopulation to be targeted. Suddenly they need to block the research and spread of cognoweapons: it is strange bedfellows time, as they begin to support the efforts of other groups to stop them. At least until enough of the patched Mentons are in circulation.

A major oligarch has been affected by a cognoweapon that is wearing down her sanity. Unwilling to accept the claims that she is sick, she is becoming increasingly erratic and dangerous. Her loyal bodyguards and lawyers prevent any attempt to bring her in for treatment. The PCs need her sane and functional (maybe in order to ask for help, because they are family or retinue, or just that her breakdown would be a political disaster for the PC). How to save her? And the enemy behind the cognoweapon might still be around, possibly closer than expected.

A cult of singularity seekers have set up a criminal front and are buying cognoweapons. The real reason is that they are trying to track down a supplier with a hellcube. Once they find one, they plan to seize it from the supplier and upload a version of their leader's ego into it, allowing him to bootstrap to superintelligence.

The Medeans, the enforcement arm of the Argonauts, are secretly masters of cognoweapons. They stem back to the legendary Applied Memetics Research Group on Chi Station before the Fall. The leading researchers quietly suppressed their findings and placed them in the care of the inner circle. Since then the Argonauts have protected themselves by causing untraceable "problems" for anybody interfering with them or poking in the wrong research areas.