

The Theory and Practice of Magic

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Running parallel to - and often within - the materialistic, technological cultures that have existed since long before mass industrialisation have been spiritual cultural traditions. The elements include religions, but there is more to spiritual culture than the people who perform commonly recognised religious rituals simply because it is a local procedure. In societies that regard themselves as rational, the most interesting thing about religions is that they pre-suppose a supernatural causality in the universe - a universe that "3: Reciprocal Cosmology" shows that we have not completely understood. Beyond the public religions, there are groups of people who all think they are talking about the same thing, even though others deny that there is any meaning to their conversations. There are esoteric bookshops in every town - usually more than pornographic bookshops - so the interest group must be reasonably large. These people are not idiots, and if they are insane, their insanity doesn't usually manifest itself as grossly in other ways. The example in "1: M0" of a situation where the majority simply assert that the minority are all individually deluded despite their agreement about their experiences, is suggestive. The situation is complicated because there is a great deal of rubbish talked about spiritual experience by people who have not had it, in the same way that a great deal of rubbish is talked about the Internet by people who know nothing about it.

In terms of the prior six papers in Reciprocity it is possible to extend the discussion of spiritual experience to those who haven't yet had it, and distinguish the facts from the nonsense. This unifies the phenomena that different sources describe in different language, and increases the opportunities for people to have spiritual experience. This is a physical theory. It uses the picture of the universe, with M0 free consciousness as a part of it, to describe an extension of what is understood as possible.

We shall follow the development of human history compressed into the changes of consciousness of a representative human called Fred. We'll look at his initial state in the Hypertime universe, follow him into the abyss of M0, and show him the way out. At all points, the phenomena we see will be entirely physical, but we will watch Fred's cognition change so that he misunderstands the universe and gets the wrong idea about what is possible, or desirable. We'll take side visits into some religious topics, within the model that religions are designed by people who have seen around M0, and exploit the properties of M0 to deliver their memetic payloads. Parts of the payloads are activated by meeting and produce cultural changes that build up to breaking M0. Without a model of the restrictions of consciousness imposed by M0, it is not possible for members of religions to understand the purpose of their religion.

During the discussion we can identify the meanings of terminology used by Gurdjieff (annotated (G)) and the related Theosophists and Anthroposophists - particularly Bailey and Steiner - (annotated (S)). The interpretation of the language of the "Gospel of Thomas" is fully covered in "6: History". Like vision, magic is a subjective experience, so I'll include some personal anecdotes for illustration.

Reciprocal Cosmology for Magicians

In "3: Reciprocal Cosmology" and "5: Hypertime" the origins of the universe remain a mystery, but we know more than we did before. The universe is open at one end - the far future for us. What we see happening is the reconstruction of a physical object that exists in our future. This object is the Most Holy Sun Absolute (G). All "moments" in the universe have equal and fixed status. Within the universe there are two equally valid arrows of time. The one we are used to is the re-creative arrow, and the one going in the other direction is the creative arrow. Steiner explicitly states that there is a "backwards evolution in time, that interferes with the usual one". Gurdjieff doesn't explicitly say this anywhere (that I've seen), although Ouspensky does in his erotic science fiction novel "The Strange Life of Ivan Ossokin". There are two causalities at work, each logically consistent on its own arrow. Okidanokh (G) is on the creative arrow and Djartklom (G) is on the re-creative arrow. On the

creative arrow, structural information is lost, and on ours it spontaneously reforms. This is the Trogautoegocratic Process (G). This is linguistically suggestive - "me myself in a cave"? For the creation we might consider three possible scenarios:

1. The whole thing is just a resonance in some external context. The monobloc forms, goes "Om" and asserts that all is illusion. A bit of a flat ending really. After all this trouble, it seems unlikely. Why not a much simpler structure that could reform by sticking together a couple of protons and electrons in perfectly symmetrical trajectories? Given that the experiential diode effect means that the reformed universe can only believe itself to be newborn, and this is the only asymmetry involved in the final/first moment, this aspect of the subjective experience of the universe would seem to be important. There is a notion called the "weak anthropic principle" which says that creatures would only be there to notice the improbability of it all in a complex chance universe, so improbability means nothing, but that doesn't apply to the experiential diode effect. Indeed the otherwise completely symmetrical structure suggests that the product of the whole thing would seem to be this very experiential asymmetry, such that the entire universe is set up to create exactly such a detailed memory of having come into being.
2. The universe is an egg of some external context creature. The parent constructs the thing in a suitable configuration to perform as a Bennett machine, and seals it in its own private spacetime. Then according to what remains of the laws of physics of the external context, the metric defining the egg prolapses. Without the rest of its metric in place it explodes. The explosion is symmetrical, but what happens from the parent's point of view (in an external context, possibly with different laws of physics) is that the inanimate thing it sealed away bursts out again, with attitude since it has a clear recollection of coming into being and so knows it exists by its own efforts. Parenthood must be especially difficult for hyper-real beings. The trouble is, there is too much information in the universe. Of course we don't know how much information an external context newborn needs just to cry "Mama", but if we're thinking about universes that never were this far down, likely we'll know an awful lot more about possible universes by the end. Does a hyper-real chick really need to know about more than one? We know that the amount of primary data (fractal seeds) in the universe is finite, so what we've got is *adequate* for some purpose. Our universe might have had its first cause this way, but it's gone beyond it now.
3. A hyper-real being says, "I'll just powder my nose", pulls spacetime around it and events proceed as in 2). It pops out with all its memories intact but its state of mind rejuvenated for more hyper-activities. We don't know what the hyper-real context is at this point, but the data - the All's memories of the external context - are in here with us.

Anyway, it explodes. Structure forms into self-similar isomorphisms at all levels of abstraction and unravels as it travels towards the horizon. This is the Ray of Creation (GS). As it does so it creates, or lays down with preplanned synchronisation, the particle trajectories that will provide the re-creative causality. This is the characteristic pattern of future structures seeding themselves by fractal back-echo, or Triamazikamno (G) causal loops. The simultaneous levels of abstraction are the Solar Systems (G) or (sometimes) the Planes (S). (At other times (S) use the term Planes meaning the two causalities, as in "astral plane". As (G) comments, (S) do complicate things! At some points in the unravelling key structures disappear. Viewed from the re-creative arrow, these are points of spontaneous formation. A creature that does this performs inductive reasoning on what it has observed - impression (GS) - and makes the implicit into the explicit. This activity is being-partkdolg-duty (G) or the Science of Impression (S). This is true even if the explicit structure doesn't go any further than the creature's brain representation of the perception, because now that it exists, it can reform according to deterministic (and reversible) distribution and collection - Kerkoolnonarian-actualisation (G). A creature doing this directly participates in the creative causality as well as the re-creative causality since the additional information it provides on the re-creative arrow is like the constant of integration in calculus - it has to come from nowhere and be identified by inductive reasoning. Only on the creative arrow (where it is disappearing) do these data have a sensible source. Viewed from the re-creative arrow, we see the creature being subject to regular thermodynamic causality (you kick it, it kicks back) but also being subject to an additional causality which is the creative arrow one, seen backwards. Without knowing that the sea of noise that the creature is embedded in is actually highly scrambled data, the creative causality looks like luck. All of this is done with the one set of atoms, and those atoms where the creative causality couples to the body - the lucky atoms - are the body kedsjan (G) or astral body (S). A creature that is subject to creative arrow causality seen backwards operates by the Foolasnitamnian Principle (G) and provides the All (GS) with the necessary

"rays" (G) by virtue of its life. A creature that is not strongly involved with the creative arrow causality can only offer a single dumping point to the creative causality for it to get rid of ambient structure during the decomposition, operates by the Itoklanos Principle (G) and on the re-creative arrow, it only offers the All the rays provided by its death (G).

If a being perfects its Objective Reason (G) through being-partkdolg-duty (G) to the point where its body kedsjan becomes stabilised, it will be heavily involved with the creative causality and it will have made sufficient observations and integrations of data for its total integrated learning to be the reconstruction of a single upline structure, and this must therefore (on the re-creative arrow) reform in the future. This component of the creature - its Map - is the soul (GS).

Within the process of structures re-forming along the creative arrow to seed themselves along the re-creative arrow, a self-similar multi-fractal distribution is produced. The origins of the multi-fractal structure are the early lumps that broke out of the monobloc then breaking up in their turn. If we take the mystics at face value on this, the monobloc first fragmented into seven very big lumps. These objects - each pretty awesome in their own right - are Those Who Dwell in Shamballa (S), through and from whom the Plan (S) is transmitted. The interaction of their decay products produces the Law of Heptaparaparashinokh (G). After they separate, their independent decays mean that there must be "additional shocks" (G) imparted to the decay products to get interesting combinations of the parts of the early lumps. Because the early separations happened when the universe was still very small, matter that we see is composed of sets of atoms from all of the initial lumps.

Modern Theosophists assert that Shamballa is a bit like Cloudbase in the puppet series "Captain Scarlet", except that it equipped with a Romulan cloaking device and hovers quite specifically above the Gobi desert! It's so sad. In the Theosophical movement we have an example of a stream of authentic knowledge (wherever it originally came from) that has died out within living memory.

The Dreamtime

We'll start by making a conceptual schematic diagram. The diagram doesn't correspond to hypertime or anything - its just a conceptual schematic. First imagine a transparent globe sitting on your desk. Draw a circle around the south pole and imagine a little ape standing in it. This is Fred, our hero. The circle represents the phenomena of the re-creative causality appearing in Fred's day to day experience. Now draw another circle around the north pole. This represents the creative causality. Looked at from the top, we can see Fred surrounded by both causalities at once. The rest of the sphere represents the multiply interconnected ways that the phenomena of the two causalities interplay with one another. Later, we'll fill in the sphere with "subjects" like physics and biology, but for now Fred is still evolving his awareness, so he doesn't know much about the sphere yet.

Fred has evolved a wonderful electrothermal feedback loop in his brain - at first as nothing more than a way to buffer heat in the hot, arid climate. This feedback loop cools him by performing an exchange of information and energy with the future - or by finding the hidden order in the multifractal visual feed and recollections of life experience if you'd rather think of it that way. The feedback loop enables him to do inductive reasoning and provides him with awareness of himself. It also allows him to guess which way the creative causality is going to jump, by finding the precursors of events that are similar to other ones at different scales and levels of abstraction that he has observed. As he behaves, Fred knows where to stand in order to benefit from the energy available in the happy accidents that he participates in. He doesn't think about it much - he and his kind have evolved here, and naturally make use of their hardware implemented ability to see on many levels at once. He's helping on the creative arrow, but not much. He's never really studied the rest of the sphere because his ability to see the creative causality makes him a very happy animal-plus.

Some of his friends are specialist magicians. They get access to deep structural data that is found in the body of the sphere, which supplements the stuff that the ordinary people can see. What they do isn't different to Fred's normal cognition - it's just a deeper form of it. To understand how it works, consider a human born in a deep forest. The DNA that started him off, all his food and impressions, come from the forest. The data in the forest contains no "noise" - only highly scrambled but retrievable data. These data fly towards a point (the human's brain), which starts a feedback loop and becomes conscious. Were an alien with no respect for where we draw lines in the biosphere to visit the forest, it would probably choose to address that bit of the forest's data

flows that are conscious - the human. The feedback loop can contain a great deal of the data coming at it from the forest, but not while it is busy supporting the conscious mind. What the magicians do is learn to suppress their own support by the feedback loop, so that the overall consciousness of the environment can be supported. There is so much relationship between data available in the feedback loop when they aren't using it, that with a bit of sneaking peeks on the way in and out, the magician can get anything that he can understand. Learning to do this is a magical initiation which operates by regressing the student back into the soup of conscious data that he came from - but not so far back that he loses the feedback loop! The techniques involve synchronisation with the rhythms of the environment and operates through the feeling centre. This form of magic is shamanism, and is alive and well to this day. From this perspective, one can understand that when a shapeshifter is said to *be* the lightning, the rain etc., he is not saying that he is the rain when he is not, nor is he deluded that he is the rain. What has happened is that for a time his brain stopped running him, and used the freed up resources to run a detailed multi-fractal deep structural simulation of rain. It did this by just loading up observed rain behaviour and letting the feedback loop determine the minimal formulation of the deep structure, leveraging the fact that the deep structure is always there. When his own "I" swapped back in, it found his system RAM contained a detailed, pre-formed Map of rain dynamics.

Shamanic magic isn't about a hardware technology that can be deployed in any way the magician's friends might like. It's about having a very clear idea of where to stand, and where the universe needs the magician to zip something up, by completing a circle of cyclic causality. This can mean (for example) getting rid of a thing that was once useful but is no longer useful neatly on the re-creative arrow, so that it has a causal channel on the creative arrow! Nevertheless, shamanic magic can be impressive, since it is possible to have shamen leaping about doing odd things in one place, and remarkable low probability things happening in another place at the same time. Bearing in mind concepts of self-similarity and cyclic causality it is impossible to ask if the magician's antics are causing the other events or the other way around. Better to think of it as the magician recognising that it's his job to play the sequence through.

There's a link to Steiner's history of consciousness in the idea of Fred as the consciousness of the forest. As described, Fred doesn't draw a strict system boundary about himself as modern Ghost Not afflicted people do. In this way, he does not perceive his own consciousness as differentiated from his environment as we do. This echoes the initial "clairvoyant" consciousness described by Steiner.

You might like to compare this account of shamanistic magic with Terence McKenna's extraordinary piece [Re-Evolution](#). Also worth a look is Robert Graves' association between poetry and magic (plus the unpredictability of the Goddess and many other aspects of magic) in "Seven Days in New Crete".

So Fred and his local magician are having a merry old time, but they aren't that much use to the universe yet, because they don't understand most of the sphere in the conceptual diagram and can't take many opportunities. They need to make an hermetic journey, losing the creative arrow and finding it again the long way round - up through the sphere - before they can be worth the huge maths and physics lesson laid on every time there's a full eclipse and the moon *exactly* covers the sun. This is an example of the strong anthropic principle which says there are too many co-incidences around. The strong anthropic principle is subsumed by "3: Reciprocal Cosmology" - so long as we are going somewhere and not destined to fail.

The Tree of Knowledge

Female brains and male brains are different simply in their average size. This does *not* mean that the one sort is less effective than the other, but in terms of this model it does suggest that they will be able to achieve different ranges of temperature drops - like different guitar strings. An insight has inputs that are loose impressions and outputs that are concrete images. The gap between the two is the "note" played by the brain. Different sized brains are good at different sized notes. The drops required to get the most profound maths and physics insights tend to fall into the "big" end of the male band, whereas the drops required to (for example) design commercial IT systems are in the female range. It's a sad fact that social factors meant that female entry to the (UK) IT industry dropped from 33% to 25% during the 1980's M0 storm. Working with female creative programmers can be interesting from a male perspective. One hears comments like, "I don't understand why you make all this fuss. Why not just tell the computer what to do?" This gender difference seems to carry over into how people hold internal representations of problems. Male programmers use pictures, but female ones often prefer long statements that need lots of punctuation to write down so that all the qualifications are

unambiguous. As far as I can tell, the entire field of cognitive psychology has progressed without noticing this empirical fact, but its like a secret weapon when leading programming teams. Male team members should generally avoid using pictures when conveying ideas to female team members, and female members should try to use them for male team members. This puts the awkward job with the person who at least knows what the idea is. Another useful way to apply gender observations is this: Because the useless end of the spectrum is dominated by M0 tie-wearing males, useless females drop out more than males (maintaining the gender imbalance). The 33% to 25% of females disappear. At the creative, naturally immune end, the females are as immensely valuable as the males, and stay on. If you walk onto a site and see 25% female, they've been hiring at random from the top end. Less than 10% and they're code monkeys. One glance across the office will tell you the ability of all the staff with fantastic reliability.

In this model we have a recognisable piece of data regarding the instantiation of M0 in the Genesis story, which is certainly very ancient. It says the instigator was a female genius of operational research who realised that it would be possible to leverage the predictability of re-creative thermodynamic phenomena to offset their low payoffs and invented technological society. She did this complete with division of labour and production lines. She proceduralised tasks, downgrading understanding based activities into rote *knowledge* based activities. Her first workers didn't like it because it was very boring. Their *natural instincts* told them not to do this. Nevertheless they persevered and their dopamine levels rose to protect them from awareness

in siege situations, as it had evolved to do. Pretty soon these workers became ritual addicted. They started to whine at the males in the typical manner of a dopamine self-addict, and the plague of self-addiction spread. Each member of society became confused, rarely knew why they did what they did (and so lived in fear of blame), and was ashamed. Then the fun was over. What *naturally happened* next was that people just bred and operated the production lines and bred some more. This multiplication was only interrupted by the pulse of the M0 socioeconomic and warfare cycle for 6,000 years. A great deal of nonsense is talked about the snake, Prometheus, the Bringer of Light or Lucifer. This influence is identical with the Logos (S) or the Christ (S). (It's worth pointing out that even in Christian theology, the Christ is a phenomenon distinct from Jesus which acts to guide human fate. Jesus was an instantiation of the Christ.) In this picture, the Christ is the fractal back-echo of the future state of humanity, seeding itself in the usual way. Data being carried on the creative arrow fractally recombine and leach away again. On our arrow, an individual has an unlikely but possible series of experiences which cause profound insights necessary to start a re-creative causal chain. There are big Logos data concentrations as well as little ones, and some are more obvious than others. The luckless man who ended up with DDT and CFCs to his credit did more to slow the manic M0 distortion of the planet's ecosystems than anyone else because of the hugeness of the attendant misfortunes. The idea of "evil" - an anti-principle to the universe contained within the universe is an M0 Ghost Not invention that has to make everything symmetrical whereas at the deepest ontological level the universe is asymmetrical. Similarly, there is no anti-matter supply in the universe to "balance" the matter because otherwise there would be nothing for the monobloc to be made of.

Fred now has problems. The high brain dopamine that he has become tolerant to has squelched his feedback loop, and he can no longer notice creative arrow phenomena. The north pole of the conceptual diagram has gone dark. He doesn't like that stuff now anyway, because the surprise factor involved in stuff which is only deterministic in his future injects too much novelty into his life and causes him dopamine withdrawal stress. All he's got left to live off is the low performance thermodynamic production lines, but he doesn't really mind slogging round and round in circles so much. You get used to your routine, don't you? And he does feel that there are no problems - nothing to worry about. These are the "maleficent effects of the organ Kundabuffer" (G). He still has cultural memories of some kind of "higher knowledge", some direct contact with the real goings on in the universe, and he still has respect for the 3% of natural immunes who provide the poets and the prophets. But the very language is now being evolved by the 97% of afflicted people, and it's getting harder for the prophets to find the words.

Reshaping the Universe

Much worse is in store for poor Fred. He develops a nasty habit of "pre-narratising" his world. Each thing is considered not in its place with all other things around it, but is first moved onto Fred's internal whiteboard, and only then considered. This happens with the relationships between objects as well as the objects themselves. Non-physical phenomena - the deep structure - he no longer thinks about. Every relationship shifts from by

default existing to by default not existing. His entire world does a figure and ground inversion as the Ghost Not logic forms. His thinking becomes exclusive rather than inclusive. If a thing is in one category, it cannot be in another category, and the integrated model of the sphere in the conceptual diagram flattens to being a circle. In the centre of the circle stands Fred, surrounded by a circle of mystery. At the edges of the circle is darkness (that's where the north pole used to be), and beyond the darkness is the infinite chaos of unknowing. His universe has changed from an asymmetric one where synergy is the dominant principle to a symmetric one where mutual opposition is the dominant principle.

So now Fred has lost all magical aspects to his being. Worse, his objectives are no longer to play and have fun (which is what the universe needs) but to obtain more arbitrary success points in his local robotic scoring system and avoid novelty. With the neurochemical and logical components of M0 co-concealing each other throughout his society he has no chance of breaking free.

By shifting his awareness from reality to his internal whiteboard he has isolated himself from his environment, but the dopamine economy he has become a member of locks him into a herd. This is where both Jeynes ("The Origin of Consciousness in the Breakdown of the Bicameral Mind") and Steiner get it wrong. Jeynes believes that the change in consciousness due to M0 was the result of different bits of the brain that had developed somewhat independently getting connected. The loss of the deeper, meaning based consciousness (which is perfectly capable of manipulating symbols but retains the sense of what the symbols mean) and its replacement by the shallower consciousness that can only manipulate symbols (because looks at an internal whiteboard) is read by Jeynes as an improvement - simply because the result was what we have today, and that must be the apex of creation! Jeynes has however put together a lot of the picture. Getting insights from impressions might as well be called "hearing voices" from the M0 perspective, and there was a big change in the consciousness of humans around the time when our cultural memory starts. The change didn't bring about a state of consciousness that formed cultural memories for the first time however, instead it simply rendered those that existed at the time unintelligible.

Also Steiner talks about people being members of a group consciousness (which he is right about) and then quotes John the Baptist describing himself as "one standing in solitude" to indicate that individual humans broke away from the group mind, leading to present day consciousness. In the M0 picture the herd is still with us, and John's "standing in solitude" is a reference to monadic consciousness and departure from the dopamine economy herd.

Minor Magicians

There are still magicians of a sort around. They are all natural immunes or people who have been pulled out of self-addiction by magical exercises such as "self remembering" (G) or the "Stop! exercise" (G) for breaking the self-boring effects of microsynchronisation. This is essential since without the feedback loop, fractally ordered but non-deterministic phenomena cannot be perceived at all. But they are not shamen. They are magicians of a much feebler variety. Their thinking is polluted by M0 limited language and often by the Ghost Not. They live in societies that have excluded so much of the novelty of nature that there isn't much deep structure bearing stuff around for them to perceive (unless they are hackers or otherwise in contact with nature). To get anywhere they have to play a trick on themselves. They fill their heads up with linguistically inadequate descriptions of what's really happening like those in (G) and (S). They learn to allow their feedback loops to work without the involvement of their rational minds which are Ghost Not inverted. Rather than express the patterns that form from the wheelbarrows full of junk that they study, they learn to experience them in a (cognitively) primitive "intuitive" way. They don't know themselves how they know what they know, and in rationalistic terms they are often a bit dippy, yet they do gather authentic models of aspects of the Hypertime universe, and this does enable them to become involved in the creative causality. To develop beyond this, magicians must forget the idea that intuitive and rational awareness are diametrically opposed value systems, and use rational thought to explore the relationships identified by intuition - and then feed the understandings back to intuitive awareness. Steiner and Gurdjieff both emphasise the importance of developing rational thought and make clear that this is involved in "spiritual" perception. But the emphasis is on developing a pretty big if blurred and incomplete Map at a purely intuitive level and then (for advanced students) bolting it onto the rational mind, spontaneously breaking the rational mind out of the Ghost Not and causing the student to achieve "enlightenment". This process is a second kind of initiation - the esoteric.

Due to historical references to "another world" - the north pole phenomena on the conceptual schematic - and the way they have to split their minds in half to get anywhere (just like artists often don't like rational discussion of their art) these magicians think they are perceiving echoes of a second, "spiritual" world rather than real aspects of this one.

But Fred has nothing to do with this table tapping stuff. He's been doing what the universe actually needs him to do - fill in the "subjects" that are now radial lines on the circle he's standing in the middle of. He's made up a great many "subjects" to break his understanding up with, as he builds from the circle around him towards the great infinite chaos beyond the darkness. We can read off what's written on some of his radial lines, all mistakenly going off in different directions, by just going through the Reciprocity papers:

- Neurochemistry
- Education
- Psychology
- Industrial Practice
- Sociology
- Geopolitics
- Art Criticism
- Formal Logic
- More Psychology
- Cosmology
- Relativity
- Quantum Mechanics
- Chaos Theory
- Consciousness Studies
- Evolution
- Thermodynamics
- Art
- Magic
- Cultural Evolution
- Mysticism
- Religion Design
- Practical Time Travel

So he's filling in the circle. He's doing it very inefficiently because few people can see isomorphisms, particularly across "subject" boundaries, but at least he's doing it. More, he's building up a huge population and collection of toys. There are some people, usually multi-disciplinary types, who have formed a kind of "wagon train" on the edge of the outer darkness. Tribus, Laing, Lilly, Feynman (all over the place) are all standing on this weird circumference that is somehow all connected, every point to every other point. Fred is reaching the "point of absolute materialism from which all progress will be made" (S). And he's recently invented digital computers, which drive M0 victims *demented* and expose the cognitive issues for all to see.

The conceptual diagram can now explain a reason why Reciprocity is so hard to discuss - aside from the ritualised contempt/threat displays that most M0 victims automatically perform as soon as they have categorised any discussion of the very topics we're talking about here, irrespective of content! The trouble is, Reciprocity is really a very simple set of self-consistent ideas that belong together at the north pole. As soon as we open it up and look in there, the thing splits into six broad "subjects". Look into those, and the features that must be tied together are at the furthest remove from the centre - on a circle that extends into ever greater "complexity" towards the infinite outer darkness - and conceptual closure never occurs. Add to this the Ghost

Not habits of believing that anything a person doesn't "know" is not the case, and anything they don't already "understand" they will not look at, with the ultimate cop-out of suddenly asserting that all mentation is pointless since there is no such thing as reality, and we have a formidable set of internal barriers to learning. Robert Graves' poem "The Parcel" describes something bigger on the inside than the outside like this.

There are other magicians around too. Alchemists perform a series of meditations that modify their Maps, always returning to the starting point, which is now seen differently by the transmuted consciousness. This is an "Hermetic Journey". A supposedly unintelligible alchemical text quoted in Micheal White's "Isaac Newton: The Last Sorcerer", has distinct mappng to mapping despite being first expressed in language that is not capable of doing the job and then translated into another inadequate language by someone that was probably neurochemically incapable of knowing what it described:

"In brief, my friend, build a temple of one stone, resembling white lead, alabaster, with no beginning nor end in its construction. It should have within it a source of pure water, sparkling like the Sun. Observe carefully on which side of the temple the entrance lies, and, taking a sword in your hand, seek out the entrance, for the opening is narrow indeed. A serpent sleeps at the entrance, guarding the temple. Seize him and sacrifice him; skin him, and taking his flesh and bones, dismember him. Then reunite his parts with his bones at the entrance to the temple, and, making a step of him, climb up and enter; you will find here that which you seek. The priest, this man of copper, whom you will see seated in the spring, mustering his colour, should not be thought of as a man of copper, for he has changed the colour of his nature and become a man of silver. If you wish, you will soon have him as a man of gold."

White goes on to say,

"It is clear that what the alchemist was engaged in was an odd combination of modern chemistry (the elements of the art which have survived as science) with a strong element of mysticism and spirituality which, to the twentieth-century mind, appears irrational."

Not so clear at all! The inability to say "I don't know" - the need to make things up to fill in the blanks - is a terrible barrier to learning. It is interesting that alchemy has (at least in places) survived as science, because it is the art of *seeing things differently*.

Idries Shah traces the hermetic arts back to the Sufis. It has been wonderful watching Sufi material make sense as Reciprocity developed. Gurdjieff is Sufi influenced as are Robert Graves, Kate Bush and Doris Lessing. It looks like Sufi teaching can remove M0 and flip a person's Map into one that represents the causality of the north pole of the conceptual diagram. The important world is "flip" because they don't seem to have a continuous path from the strictly south pole awareness that teaching and language from the surrounding culture leave even a Ghost Not free natural immune with. Just about all the Sufi material I've looked at seems to make some kind of sense in terms of Reciprocity now, with one important exception discussed below. People like this have correct understanding of the northern hemisphere with their rational mind as and such are an "anticipated and accelerated" (G) development in humanity's Hermetic Journey but aren't finished products, because the northern and southern hemispheres don't seemed to be joined up. Despite this lack of a bridge however, the Sufis do know what is going on. This is the first page of Shah's "The Sufis":

THE SITUATION

Humanity is asleep, concerned only with what is useless, living in a wrong world. Believing that one can excel this is only habit and usage, not religion. This "religion" is inept.

Do not prattle before the People of the Path, rather consume yourself. You have an inverted knowledge and religion if you are upside down in relation to Reality.

Man is wrapping his net around himself. A lion (the man of the Way) bursts his cage asunder.

(The Sufi master Sanai of Afghanistan, teacher of Rumi, in "The Walled Garden of Truth", written in 1131 A.D.)

Given the M0 situation, it cannot be surprising that some people in ancient times really did know more than

modern science about many things.

Major Magicians

The founders of the major religions were all major magicians whose informing insights were collections of the Logos structure. They were free of M0 and their life experiences contained (serendipitously on our arrow) the data necessary to experience huge problem quakes and get the whole picture in great detail.

Each religion founder understands the point of humanity's Hermetic Journey, and that M0 is acting like the lid of a pressure cooker. They recognise that M0 is homeostatic and the problem - the bit where conscious beings must add the constant of integration - is shutting it down. In these terms, the purposes of previous religion designers (if any) become apparent, as does the action that they can take to contribute to the building solution. They act by constructing memes that leverage M0 itself to spread a payload with interesting features, some of which only work when mixed with the payloads of other such memes. A major task of these mixed payloads is to create cultures that are capable of filling in the sphere in the conceptual diagram, and find the north pole the long way around. Religion designers don't try to solve the problem - instead they act to create cultural developments that will break it in the long term.

The overt contents of religions are at best usually very distorted. A good example is the Christian business of "witnessing God". This is taken to mean following the procedure of subjecting some easily fooled invisible bearded character to incessant insincere sycophantic mouthings in order to manipulate him into letting loose (or not) with particle beam weapons as required. The death rays have never been observed, and how such a stupid creature could ever do anything worth doing is never questioned. This is all very M0 and substitutes for the real job of conscious beings, which is gathering deep structure. People stuck in M0 don't know what others mean by "deep structure", but they know it doesn't exist! And just as M0 converts ideas of awareness into dumb "compliance" in industrial Quality, it does so with the awareness recommended by religion designers - just as they expect it to, but they don't lie. Telling lies means representing the universe as other than it is, which wrecks one's Map. As Robert Anton Wilson points out, the most powerful propaganda is the stuff that comes out of our mouths and re-enters our heads via our ears.

Some religions don't actually have clearly identifiable founders and aren't so much designer memes as the maintenance of data and models from before the instantiation of M0. Tattered shreds perhaps, but significant achievements considering that the stories imparted concern people who were in a superior state of consciousness to both the story tellers and the audience. These traditions maintain themselves because they are mixes of loads of lovely M0 friendly ritual and deep structural truths that give peoples' dormant feedback loops a very peculiar feeling twinge. The truths are wrapped in symbols so that when they are wrapped again by Ghost Not perception, the NOTed NOT give inverted minds a sniff of direct experience of the deep structure. Designer religions use the same M0 leveraging techniques. Judaism and Hinduism are examples of "maintenance" religions. We might wonder where maintenance religions come from. The instantiation of M0 must have been a horrible sight for the last pre-M0 people. They were able to exploit feedback in cognition, had their brains the right way round, and had a culture that explained reality to them, rather than obfuscated it. They must have seen what was happening to their friends, and even if they couldn't stop it, perhaps they were able to characterise some of its properties. Perhaps they realised that M0 societies are *programmable*, and acted to establish some reasonably protective procedures (including "don't forget to breed") and package what data they could in self-stabilising tales before they died. Gurdjieff mentions such self-stabilising tales and calls them "Legominisms".

Regaining Mapping

Now we'll start Fred back on the path to full awareness. All he has to do is:

1. Turn on the bits of his brain that are currently squelched.
2. Train himself out of the narratisation habit that filters out the deep structural data before he gets a chance to use his brain on it.

- Learn to use his full brain. This is the hardest part. He should have just started using it without thinking about it as an infant and have it there now that he's an adult. Now he'll have to "find" it and integrate its operations into the rest of what he does.

What he doesn't do is learn procedural recipes for achieving arbitrary objectives. That's what south pole technology is about. Instead he learns to position himself - often as a key element - in circular causal loops that add (structural) richness to the universe. This is good for him because it positions him in regions of increasing richness, and because what he sees increases his personal collection of deep structure.

Although the description of the physical situation above included a great deal of peculiar language, this was always fitted into the physical picture of "3: Reciprocal Cosmology" and "5: Hypertime", not the other way around. If the physical picture is allowable, so is this description of magic. We've also established that what we're talking about really is the stuff that is at the root of the ancient tales of magic, but we can best understand the route to doing it by dropping the inadequate language for describing a different causality and just focussing on the physical picture. This route to magical consciousness, which is fast, repeatable and trivially transmissible, constitutes a distinct third initiation which works through the thinking centre, in addition to the shamanistic and esoteric initiations. It means using the psychological and physical models, converting the circle back into sphere and illuminating the north pole. This puts Fred back where he started but with the whole sphere appreciated and considered. This is only possible now that the circle has been filled in to the extent that it has been. Consider the modernity of some of the key concepts in Reciprocity:

1960s	Primary Algebra
	Hacking
1970s	Black Holes
1980s	Reversible Computation
	Fractal Mathematics
1990s	Polymorphic Dopamine Receptors

The peripheral darkness containing infinite chaos that is on the edge of the circle is really a point of meeting. That's why complexity studies seem so profound and empty a subject at the same time. South pole thinking has reached a point of synthesis (S).

Fred can accomplish stages 1) and 2) by forcing his feedback loop into operation and using it to maintain a decent level of surprise. He can deluge the loop with coherent, rational, deep structurally informed data. This is how the "Programmers' Stone" breaks M0 for software engineers - and why such an odd pot-pourri can achieve anything at all! The trick discussed in the Stone of explaining the world to an imaginary friend works for everyone, not just engineers. Fred must raise his expectations so that he *expects* things to make sense - a recurring theme in the Stone. He must remember that *all* allowable ways of "explaining" a juxtaposition of phenomena are equally correct. He must also remember that getting something worthwhile always takes a little more effort than seems reasonable, but in a universe that fits together the payoff is bigger than expected too. In the physical picture, being persistent is what he's conscious for. There is a degree of "intentional suffering" (G) involved in any worthwhile endeavour. This can be purely mental exasperation of course, and may be engaged in while being fed peeled grapes by a posse of sexually attractive flunkies if desired. Living in misery as if it were an inherent good is counter-productive.

It is important that he *applies* the deep structural insights he obtains. Not only does this enable him to actualise his perceptions - zipping up the universe - it also leads him into details he'd never have seen if he hadn't looked

at reality. That is where the surprises are. Ghost Not inspired claims that science is complete cannot be true until the end of time. Even with the north pole back as a point, there is still inconceivably fine detail to understand in the body of the sphere - and the details are not trivialities. Application doesn't necessarily mean making programs - achieving the same elegant representation of the essence of a domain by making a poem or a painting works as well. People seem to be able to have regions of their Map inverted by the Ghost Not and other regions the right way around. Normally in M0 society the Ghost Not spreads through the Map wherever it touches but the direct, practical experience of feedback from real world success by exploiting the coherence of the deep structure can reverse this. Fred has to learn to say, "I don't know", because he cannot learn until he has first achieved ignorance. Being concerned primarily about "showing" that he knows things when in fact he doesn't and so *can't* "show" it just blocks learning. Similarly he must learn to stop "playing roles" - pretending - and actually *do* what he is engaged in.

In the same way that a program based on superficialities will tend to grow exponentially with function points, but a program based on deep structure will grow logarithmically with function points, so Fred will find that understanding grows more the more he understands. This is because he is directly adding the deep structure to himself and exploiting the way that it generates superficialities containing algorithmic redundancy. This is also "Platonic essence".

He may become known as a cynic. Rather than live in the middle of appalling situations and denying it, he must become a person who describes things as they are and attempts to improve them. It's inevitable that he will wish to improve them because the sheer inefficiency, the stupidity, will be an annoyance.

And unless he has been ridiculed as "grasshopper minded" and so on since he was a small child, he must remember that proceduralisation is not an inherent good - it's only good if it can really expedite some other objective that *is* worth doing for its own sake. He must remember that getting stuck in a rut is a biochemical issue and take steps to keep background novelty high.

Stage 3) is trickier, but the descriptions of how to do mapping in the Stone are a start, and most of the rest of this paper are about using the full human faculties.

Correcting Objectives

As portrayed in the Stone, software engineering is about coming to understand and express - and so achieve - desires. In this it is closely related to psychoanalysis! Now he's got his brain running, Fred needs to do this with his own desires for himself. This is because he has probably accreted a stack of "conventional" objectives that he doesn't really care about, while having been taught from an early age to deny his real interests, and then deny the denial - as described by Freud, Laing and Magritte amongst others. This is also the false ego (S) - the false "I" (G).

His real objectives do matter. Not only because he'll be unhappy if he doesn't at least attempt to fulfil them, but also because he is not distinct from the universe - he is a part of the universe. What he really wants is what the universe wants. How does he know what the universe wants? Literally, he can look within! He shouldn't be surprised if many of his desires are directions of personal growth.

Hearing Lies

Things that happen in the universe fall into patterns. This is the deep structure. Fred's brain can detect these patterns and the facility is implemented in hardware. He doesn't know how he does it, but his deep structure detecting brain can tell when people make statements that are not true. Yes, the body language of the teller is a part of the inputs, but it's more than that. Lies sound flat, like a bell with a crack in it, whereas truths have a rich and satisfying sound like a whole bell. Never mind that this sounds silly - it's a hardware feature and subjectively it's just there. Now we south pole oriented people understand the principle, we can get on and use it, despite social pressure to deny the data. Many natural immunes have had the experience of watching in amazement as friends swallow the obvious lies of a con artist.

Hearing lies is an important part of developing full awareness. After Fred can do this, the feedback that enables him to get better is there. It's just like the way that once he can move his heart rate a bit, he can practice and quickly move it a great deal.

Hearing Ambient Lies

The falsehoods don't have to come from a particular person. They can be commonly held beliefs about the wise course of action. Directions, even abstract directions, can sound flat just like statements. Useful directions of personal development are rarely straight lines. To be involved with the creative arrow, they *must* seem serendipitous - lucky - from time to time. Fred can avoid wrong directions more easily than find right ones, and the consequent changes in direction can make much more sense in hindsight than they do at the time. When the resulting successes emerge, an observation that they are lucky and not planned is reasonable in three ways. First, the causality that is being exploited is indeed non-deterministic. Secondly, most successes come from luck! As Scott Adams points out in "The Dilbert Future", most people who are in successful and fulfilling situations got there by luck (if they are honest enough to admit it). Third, we make our own luck.

Robert Graves' poem "The Cabbage White" describes this.

Hearing the Truth

As lies sound flat, important truths have a sharpness about them. They are noticeable. They are harder to spot than lies, because *why* a thing is important is not always obvious, and while a lie need only be identified and avoided a truth must somehow be employed.

I have twice (in 1982 and 1995) had the experience of hearing an offhand comment that someone has made and finding myself feeling like I've just had a major problem quake, but without any puzzle or insight involved. It's like a red carpet with no-one to walk on it. Both times I've known, certainly and immediately, that the statement I've just heard will certainly become true. Although I won't say what the statements were, I will say that neither has yet come true, although they both now seem possible whereas at the time they were made they certainly didn't. Despite their logical impossibility, my immediate conviction that they will come true has puzzled me sometimes, when my track has led away from anywhere where they could come true.

I don't think knowing about this effect makes it any more likely to happen, or that it is any use at all when it does, but it is interesting that hearing the truth can become so focussed and precise it's actually no use and something more loosely bizarre (like absolute certainty that the future was contained in the TRS-80 Model 1 - not so certain in 1977) would be more useful.

Telepathy

In "Telepathy", Alice Bailey says:

True telepathic rapport is part of the Supreme Science of Contact and has peculiar and definite reference to humanity. Many different terms might be used in the effort to convey some understanding of this subtle, subjective mode of relationship, and I have used among others the following:

1. The Science of Contact
2. The Science of Impression
3. The Science of Invocation and Evocation
4. The Science of Relationship
5. The Science of Sensitivity

All these terms convey different aspects of the reaction of form or forms to contact, to impression, to impact, to environment, to the thought context of various minds, to ascending and descending energies, to the invocation of agents and the evocation of their response. The whole planetary system is in reality a vast interlocking, interdependent and inter-related complexity of vehicles communicating or responsive to communication.

In terms of the data flows we have been discussing, this doesn't need interpretation, does it? A team of mappers with a shared mental model of their project will react telepathically to events. DeMarco and Lister, in "Peopleware":

Once a team begins to jell, the probability of success goes up dramatically. The team can become almost unstoppable, a juggernaut for success. Managing these juggernaut teams is a real pleasure. You spend most of your time just getting obstacles out of their way, clearing the path so that bystanders don't get trampled underfoot. "Here they come, folks. Stand back and hold onto your hats." They don't need to be managed in the traditional sense, and they certainly don't need to be motivated.

Just like thoughts themselves, telepathy works with respect to the deep structure. Looked at like this, the subject is hardly worth talking about. What it does do is point out the difference between C2 and C3. How can anyone work without instructions? What if something were to go wrong - they might be blamed! How can compliance be enforced without supervision and sanctions? After all, it is human nature to shirk, lie and bodge! This is why C2 can't design software. Why should I write a program for a bunch of stupid and inefficient mindless drones when I can just program the well-designed computer instead and tell the drones to stay at home? Of course, most software shops don't exist to produce software but to follow procedures for the sake of it.

Affirmations

We've seen how the otherwise inexplicable behaviour of the QM regime can make sense if we take into account the causality of the creative arrow. On the creative arrow, what we think of as emitters are receivers, and vice versa. Each event in the universe must make sense according to both causalities and the strictly linear causality of the re-creative arrow that we see is not the whole story. The other arrow also applies, and even more importantly, there must be a "agreement" that an event shall occur on both arrows. We don't notice this very often in our normal lives, because creative causes come after their effects in our awareness, so we can't do experiments or make observations where we set up the cause and then watch the effect. This idea is very important in understanding the remarkable phenomenon of affirmations, and beyond, the limitations on the applicability of magic in general.

Using affirmations is very simple. With his full brain working and a clear awareness of his own true desires, Fred chooses a desire that he very much wants to fulfil and says to himself - not to his friends - "I will be able to leave the roof of my car open for weeks at a time" (or whatever it is that he wants). He should do this several times a day, positively, without prepending "I want". He should keep it up for weeks, if not months. Whenever grammatically possible, he should phrase his affirmation "I am" instead of "I will". Doing this when on an emotional up seems to be particularly effective. You can find several references containing detailed guidance for doing this - Robert Anton Wilson in "The Cosmic Trigger", Richard Bach in "Illusions" and Scott Adams at the end of "The Dilbert Future"! (There are several interesting bits at the end of "The Dilbert Future". Adams has certainly captured the essence of the C2/M0 state of mind, and more besides. Compare it with Reciprocity and you'll see an eerie example of a partially formed valid impression.)

Just because Fred is using affirmations, it does not absolve himself from making the necessary efforts (except in the case of cloudbursting where there is no necessary effort). It's more like a way of bending the odds. Adams still had to draw the cartoons!

How can this work, and why can't we use it all the time? Wilson reckons it is just a matter of re-programming one's own head so that one sees opportunities to fulfil the objective, but there must be more to it than that. Affirmations work without any mention of the route to fulfilling them - in fact making detailed demands regarding timing or the route should be avoided. Fred should take care of the re-creative causality with work, and let the affirmations take care of the luck.

So if not meta-programming our own heads, how does it work? Think about the creative arrow causality. The cause is Fred's car, sitting outside his new home in the Mediterranean. Where is the effect? It's rather like the way a power plant designer has a bigger problem getting heat out of the plant than in. By setting up a clear, unambiguous circumstance in (his) present that clearly relates to (his) future, Fred can provide a sink for the effects in backtime of his desired objective. This is why affirmations are particularly useful when the required outcome is improbable. There is a shortage of sinks for backtime effects, so Fred's additional affirmation effect sink - making the statement - is very valuable. The reason that affirmations can't be used all the time is that our future isn't an unturned page that we can write anything we like on. It's already happened. The job of conscious

beings is to do the necessary work to make everything work out right, and to facilitate this, they are equipped with feedback loops that power their own thoughts by making short term exchanges of information and energy with the future. So Fred can't pick any old objective and bring it into being - he can only fix up the causality of something that is already there. A bogus affirmation will actually have the flat, dead feel of a lie as discussed above. And ineffective affirmations don't get reinforced. Fred will forget, not put his heart into it - it just doesn't happen.

Arranging things so that both causalities have sources and sinks is what the phrase "When two make peace in one dwelling, they shall say to the mountain, 'Move away!' and it shall be moved", in the Gospel of Thomas, as well as the story of Jesus zapping a fig tree in the (non-hackish sense) canonical Gospels is all about. That story is atypical in two ways. Firstly, it's the only "miracle" story that isn't garnished with sanctimony, and secondly it's the only "miracle" that we can see a clear mechanism for in terms of "3: Reciprocal Cosmology". The fig tree story is probably the only one that actually happened just like it's told!

There's an interesting side-possibility here. The wonderfully entertaining Rupert Sheldrake has produced some superb challenges to the mechanistic view of science and a few years ago he explored the way the driver of another car will turn his or her head if you look at them when the car you are in passes their car. This is usually accounted for by saying that the other driver notices your head movement with peripheral vision. A bit of experimentation on motorways convinced me that there were plenty of other cues the drivers could be seeing with peripheral vision, and while its hard to be sure without fitting gear to both cars, the angles didn't look very encouraging. So it's interesting. Sheldrake fitted a video camera in a shopping centre and viewed it on a distant monitor. He didn't get that many people looking at the camera, but he had a videotape running, and afterwards noticed that the number of people looking at the camera dropped significantly when his team took their tea-breaks! Think of it as a symmetric dual arrow causal loop, exploiting the information/energy exchange required to have a thought. Person A gets a hunch, and looks at person B. Person B gets a hunch and looks at person A. Person A gets the shock of person B turning to make eye contact, which event gets shifted backwards into the reflective state brought on by travelling that person A was in before the loop happened. Person B gets the shock of turning on a hunch and making eye contact with person A, which is similarly shipped backwards. It all works because of what we can either see as a dual causality, or as an effective time shift caused by two people performing related stochastic coolings of data containing very deep fractal structure and exchanging information and energy with the future a la Bennett. It really takes a universe to do this. It isn't just something that happens between two people in cars, hanging in a void - they are both part of a canvas that the Ghost Not subtracts during the transcription to the internal whiteboard.

Sheldrake's prior observations of the way that living things seem to be attracted to assume the shapes of other, existing creatures (morphic resonance) in "A New Science of Life" and never mind the absence of a known mechanism, seem obvious in the light of creative arrow causality.

Hippy Hitchhiking

This is a trick for hitching lifts that a hippy taught me. It's the same technique as hearing the truth, but a bit harder to sustain. I learned this by example, and I don't know if a verbal description will do the trick - it took several goes for me to get the hang of it.

The best place to wait for a lift is in a house, drinking tea. One should do this for as long as it takes, waiting for the moment. Instead of being aware of one's impression of the truth content of a single statement, it is necessary to monitor constantly. The tension in the room does build - in a hippyish kind of way. More distracted than stressed out. When the moment arrives it's a bit like the smile on the Cheshire Cat. Unambiguous without anything that *is* unambiguous. Remember - this is a feature implemented in hardware - it's just there. No weird vibes, no "intuitions", nothing like that. If there's any question, then it isn't the moment. The thing to do when the moment comes isn't jump up and down, erupt out of the house, or anything like that. In fact, its the most sober miened I've ever seen this particular hippy. Preserve the tension, get up, go. In the days when I did a lot of hitchhiking, I used to average speeds of over 90 miles per hour (door to door) on many journeys all over southern England and Wales. The synchronicity would maintain itself beyond the first lift - often I wouldn't even have time to put my bag down before the next one turned up. The longest I've had to sit and drink tea was 3 days.

This kind of constructive waiting can be used for other things than getting lifts of course, but a word of warning. That sense of tension that comes from constructive waiting drives non-magicians in the building into fits of packer/C2 rage. Don't do this with them around.

Channelling - the Downside

Throughout this paper I've been using Reciprocal Cosmology to describe what is actually behind misunderstood magical traditions as well as how to do it, but the magic that is performed I've described from the rather distorted point of view of an experiential diode called Fred. Anyone exploring this stuff should realise that Fred's perspective is very distorted. He isn't actually *doing* anything - the universe is. He can't do anything that the universe doesn't want, and by providing the universe with the necessary causal fixups to get useful stuff done, he signs up to the universe's agenda. Usually the results will be to create regions of increasing complexity in Fred's locale, and usually this will be good for him personally, but sometimes he won't *think* it's good for him. Magicians have lives that are much less cosy than most people's. There is inevitably chaos popping all around them, which at the time they can see as undesirable as much as desirable.

Their success criteria are different to most people's. This is good news, because usual success criteria will often be very much absent - and then will appear for a while when the universe needs them in service, only to disappear again afterwards. All of this can act to intensify unpleasant behaviour by C2 types. Magicians *must* consider the hostile nature of the non-magical society they are embedded in or leave it.

Be careful of what you wish for - you might get it. In December 1992 I became determined to lose the extra weight I'd gradually put on since I was a child. I started a slow and sustainable reduction which wasn't self-punishing - the only sensible way to lose weight - and also used affirmations. Over-egging it for something that can be done by simply not eating, but there you go. In October 1993 my weight was down by about 14 pounds, and I began to feel unwell. No-one could find out what was the matter. In October 1994 I was taken suddenly ill at work, nearly died of an obscure disease I'd never heard of, and lost 63 pounds in one month, with tubes coming out of every natural orifice and a few extra ones. I lost the weight alright - for the first time in my life I was skinny - but I'm told the pain I experienced while escaping death is one of the worst known to medicine. (How do they grade relative pains? Maybe they get a man who's had his head stuck in a saucepan and a tarantula bite, another with a tarantula bite and an ingrowing toenail and so on, and fill in a matrix? What a peculiar pursuit! Or is it just more made up stuff to fill in the blanks?)

Bumping the Future

There's only one universe of course. Only one kind of magic. The different flavours I've been describing here are just case studies. One flavour that isn't done deliberately - only by accident - goes as follows:

Fred has been getting better at being aware of what his full brain can do. His sensitivity is increasing, so he can sink more effects of future causes. He's starting to spend more time in a kind of reverie state, musing over his Map. It's a kind of swapped-out daydreaming. During these times his ability to get impressions is better than normal, but his thoughts are going everywhere. Fears as well as hopes are in there. Now mix affirmations and hearing the truth, and Fred can, by accident, channel things he definitely *doesn't* want to happen. There's a little motionless bump, and he knows he's "fixed the future". You'll know if it happens to you.

These are powerful tools. Be careful to avoid them going off by accident. This is probably what warnings about "bad thoughts" in many magical and religious traditions are about.

The Change in Magic

Most humans live in a world of other humans. Few of us really have very much to do with actually producing the material goods that we consume, or studying nature. Even magicians, who must look at the world more deeply to build their Maps usually get their material resources from this world filled primarily with other humans. The human world is currently in chaos, because of M0. Resources are used inefficiently, and in the chaos it is easy for the universe to whistle up the resources a magician needs (for its purposes as always).

When M0 breaks, the awareness of each human will increase. More and more people will be able to form integrated Maps and use the resources to hand efficiently, co-operating as gelled teams. Understand - this *is* a

form of magic in its own right. So is the wealth of opportunity to behave more efficiently, which comes from the fact that the deep structure is there to be exploited. And the net result will be another level of magic - an emergent aggregate consciousness of the gelled team with its own distinct character.

But the chaos will diminish, and it takes an awful lot of "noise" to produce one "lucky signal". So magical techniques that channel such happy accidents will become less useful. Stick to major additions of richness and personal development and the luck will still be there but always, the lower the chaos, the less luck will be available, or needed.

Consciousness Four

Gurdjieff describes four states of consciousness possible for man. The first is sleep. The second is the full M0 linear dyadic state, although there the modal dyadic and linear monadic states could be seen as another two states. Gurdjieff does not differentiate these components. The third is the normal modal monadic state. The fourth is shamanic or shapeshifter consciousness. It can be reached by an extension of the Mapping techniques discussed in the Programmers' Stone, but it isn't a beginner's exercise. This is because even if a beginner gets there, he or she won't be able to do anything with it - probably won't even remember it.

Normal mapper problem solving might be described like this:

Take the elements of the problem, perhaps taken from a software requirements specification, and set them up in your head, like croquet hoops put on a lawn at random. Then fly your awareness like a model aeroplane through the loops. Fly the plane round and round and round, and as you do so, notice ways to make the flight path simpler while still flying through all the hoops. As you do this, move the hoops around to effect the simpler flight path, and grow some hoops so that groups of smaller hoops can sit in front of them. The big hoops might be things like "Accept, Fill, Ship, Invoice, Remit" in a goods inventory system, while the smaller hoops might be "Stock call-off", "Telephone order" and so on. Straight Object Orientation really. Bring in other hoops from the body of software engineering, and spot the ones that weren't in the specification but must be there for the universe to make sense. Achieve problem quakes and type in the program.

For C4, it's done slightly differently. Instead of focussing awareness with the model plane, keep it spread over the whole lawn. Don't move the croquet hoops, just leave them where they are, and leave them all, at all levels of abstraction, the same size. Keep adding croquet hoops and keep awareness spread all over them. When I do this, I get a tense feeling, like my head is being stretched, in two regions in my head. The regions are symmetrical, and found by drawing a line 45 degrees up and forwards from my ears, at the point where my skull becomes round and not vertical. Getting/creating this tension seems to be a really good feedback technique for getting the desired effect.

As you do this, you should find a mood of pensive tension building - a bit like being worried or distracted. Eventually you should get a very peculiar sensation, which I call "the full place". To describe this, think of the cutaway drawings of the human arm in "Gray's Anatomy". The arm is completely full. There are no holes. The arm has got bones, muscles, tendons, nerves, blood vessels, lymph vessels and even some connective tissue. Yet for all its fullness, the arm is completely free to move. You can twist your lower arm by more than 180 degrees and all of the distinct things in there move past each other in perfect synchrony - yet always ensuring that your arm is completely full at all times. Considering how hard it is to design a single constant volume joint for a pressure suit it is astonishing. When you reach the full place, it's like all the croquet hoops suddenly jump up into the third dimension and fit together to become full yet completely free to move, just like your arm. Again, the sensation is unmistakable when it happens. The trouble is, when this happens you lose linear, individual awareness. Everything is there, but you can't even remember that you *came* for something!

The way around this is to bounce along, forming, losing and re-forming the C4 state, and try to sneak peeks at the transition. It seems to help to have some music running, and use the sound of the music to remind yourself that you have an objective. Music can also make it easier to reach the state. Some kinds of music will work better than others. House music (interestingly picked out for special mention in the UK Criminal Justice Act) is best for me, but I expect other kinds would be better for some people. Similarly, nervous pacing (I have found myself pausing in mid-pace for several seconds - at least) enhances the state and reminds me that I came for something.

When you can sneak peeks, all you have to do is bear in mind what you want to know, and the connection between the elements of the problem will become apparent in the topology of the full place. Like, it shines. You can get anything you can understand. Fix on the exposed relationship, and leave the state. It is very important to keep telling yourself the fact you have discovered as you return to C3. This will seem like a very silly thing to do, because it will be a point of the most banal obviousness. Nevertheless you must treasure it. I think that what happens is that your whole brain gets used as an analogue computer that simulates with a small but perfectly formed authentic model (not a simulation) of the All. When you return to C3 focussing on the exposed relationship, you distort your whole Map so that the new idea really is obvious to inspection. Over the next two or three days your Map returns to normal, and the obvious fact becomes pointless, then meaningless, and if you keep revisiting it, it will suddenly become so profound that you can consciously re-order your normal C3 Map in terms of it. You'll have a job putting the new insight into words however. C4 is an endless toyshop of paradigm shifts. One concept obtained from C4 can change the world.

Three points of caution:

1. During the two or three days after the excursion to C4 you may be in physical danger (although I'm not sure of this) due to your Map having been distorted without your being aware of it. I think it's possible to make some very silly mistakes in this period. There's a story of Isaac Newton that I think may have something to do with this. He had a cat in his rooms at Cambridge, and he cut a hole in the bottom of the door for it to come and go. When it had kittens, he cut a second, smaller hole, for the kittens to come and go as well! To me, this reeks of something that might happen after having twisted my Map about like this. Think what you might do with hot liquids!
2. You can lose a great deal of heat in C4. Make sure that you are able to wrap up and get warm, or else you might find yourself shivering and blue with cold in a hot room full of hot, sweaty people.
3. You can get more than you bargained for. It doesn't matter if you prefer to think of this as getting a bigger problem quake (stochastic cooling) than you expected, or if you prefer to think of it as making your own mind equivalent to the All and sending a transponder signal with your question so you volunteer yourself as a target for data which really needs to get down here (that's the way magicians traditionally see it). Either way, you can find yourself unable to get your head out of the C4 state. You're sat there in C3 knowing that there's *all this stuff* going on below the threshold of your awareness, losing heat like crazy, and quite unable to do anything about it. Magicians are the universe's taxi drivers - they don't choose where they go. Even weirder is the sensation that the incoming stuff is building it's own subconscious motivational structure and processing capabilities. While this is no different to what always happens with all impressions, the speed of it can make what you know is down there feel distinct from what you usually think of as "you".

Gurdjieff calls C4 "to see things as they are". It is possible to spend extended periods on the edge of C4, skipping in and out. I spent most of summer 1998 in this state, fitting the clues of Reciprocity together. The song "Solid Air" by John Martyn is *very* suggestive of the experience.

How Not To Do It

There are various cults that prey on weak-minded and confused M0 victims and natural immunes. One kind keys recruits up (often by senior cult members shouting logical fallacies at them while wearing sunglasses), and then uses them in jobs like script driven telesales which on the surface should not be influenced by the state of mind of the worker - after all that's what script driven proceduralism is all about! They get phenomenal success, and the recruits are burned out nervous wrecks within a few months. In this model we can explain what happens. The worker spends all of his or her channelling capacity very wastefully, fixing up every single possible channel of creative causality. The belief that the worker has to do something causes more waste than the channelling activity of course, but that's a way to get a confused person to do that much affirming! People do this to themselves as well of course. If the universe doesn't want to do something, no amount of focussing, no matter how inwards turning the energy, will make it. And turning energy inwards, without something to work on, is like running a generator without a load. One can become stale and sick this way very quickly. If the universe does want to do the thing, just giving it an opportunity to sink some creative arrow effects, or looking for a route to exploit the deep structure in an engineering sense, will work wonders.

If you must expend mental energy to feel good, map building is the profitable and healthy way to do it.

Mirroring

Using magical - creative arrow - causality to modify the life of another person (as opposed to a fig tree) will be very difficult indeed. But persuading them to do it to themselves is much easier. The way to deal with fears that another person is trying to drop unfortunate events into your life is to decouple from it. By engaging with the problem, you make it. A conscious mind makes its own luck. Oddly, this is discussed very clearly by Alastair Crowley in his novel "Moonchild". The existence of "Moonchild" puts Crowley's other writings and activities in an even worse light (if that were possible). *He knew better.*

The Remaining Mystery

There is only one recurrent theme left in Sufi literature that doesn't yet make rational sense in terms of Reciprocal Cosmology. I'm inclined to give this class of story a lot of credence, because everything else has panned out. It is the business of people, and objects, translocating. This means moving between one place and another - great distances apart - either very quickly or instantaneously. It isn't totally off-beat, because we see this effect occurring with very small particles in quantum tunnelling events. Tunnelling events aren't limited to light speed - the speed is a constant irrespective of the width of the gap. Perhaps an exploration of the idea discussed in "3: Reciprocal Cosmology" that mass-energy might be a hole in an otherwise full medium, which usually propagates by moving one unit at a time, but can in correct circumstances propagate at the speed required to move one unit by shunting, would be productive. If translocations of macroscopic objects are a reality, they could explain another historical mystery (itself beyond the scope of this paper), providing:

1. It cannot always be done, no matter how competent the practitioner.
2. The time and place of the event influences its achievability.
3. The distance travelled and the mass that can be carried varies with circumstance.