## The Incoherence of Incoherence

An excerpt chapter from The Ouroboros

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To deny the existence of efficient causes which are observed in sensible things is sophistry, and he who defends this doctrine either denies with his tongue what is present in his mind or is carried away by a sophistical doubt which occurs to him concerning this question. For he who denies this can no longer acknowledge that every act must have an agent.

Ibn Rushd, AKA Averroes,
The Incoherence of the Incoherence
Al-Andalus, 1180 A.D, 558 A.H.

Empirically, most people hold some number of logically incompatible beliefs. Perhaps the classic example is the professional scientist who is also committed to an orthodox religion. Such a man treats religion and science, the spiritual and the physical, as unrelated magisteria<sup>1</sup> that never interact under any circumstances.

Why is this denial of relation possible? How does the mind internally represent incoherent and fragmentary belief structures without simply failing to compile them? Why does it not break down, and return an error much as an artificial computer would? It stands to reason that a lack of internal contradiction would lead to much greater psychological health. To be internally contradictory is to be at war with yourself.

So, how do individuals hold contradictory beliefs—or at least appear to—and still behave normally according to human universals and cultural specifics? Is a tolerance for incoherent belief necessary for social stability? And, lastly, while still endeavoring for coherence in belief in and of oneself, how can one interact with others' contradictory belief structures without developing incoherence in oneself, or sparking aggression by challenging the incoherent?

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Firstly, mental incoherence is not the admonition that one does not know how to relate two domains. That uncertainty and confusion is something that everyone must experience on a daily basis. I experience it as I write these words on a laptop without possessing a perfectly accurate understanding of the relation of each layer of the laptop's software and hardware stack. I only need to know that when I press each key, a Latin letter will appear.

Rather, true incoherence is an individual's assertion that there is *no relation* between two domains, even as they both affect the individual. The effect on the individual may only be the simultaneous knowledge of both domains. The mere fact that both domains affect the individual implies that a relation must exist. The relation must at least be the fact that knowledge of both

<sup>&</sup>lt;sup>1</sup> The term was popularized evolutionary biologist Stephen Jay Gould's 1997 comments that science and religion form "non-overlapping magisteria," which was itself in response to Pope John Paul II's statements in favor of the exploration of evolutionary hypotheses for the origin of life.

domains is encoded in the memory of the individual. This fact that knowledge of both domains, however incompatible, is localized to a single mind implies that they are at minimum related by both influencing the individual in question. The denial of this fact must be understood to be in bad faith<sup>2</sup>. It is this denial, whether conscious or unconscious, that forms the foundation of all mental incoherence.

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Secondly, mental incoherence is not the recognition of the limitations of a non-omniscient reference frame. This manifests both in terms of knowledge about physics, and knowledge about foreign psychologies.

In the physical case, no one can break out of the laws of physics, view them from the outside, and check if they are a subset of a larger whole. Our very existence depends on those physical laws. To escape them is to be annihilated. Thus, it is impossible to verify that one has correctly identified the actual cause of any behavior, and not simply noted a spurious correlation<sup>3</sup>.

This uncertainty implies that the world may contain some incoherent phenomena, namely uncaused causes<sup>4</sup> that break the continuity of its physics. However, the act of observing phenomena serves as a mechanism for ordering them, as stated previously. The mind itself cannot be considered fundamentally incoherent, even though uncertainty as to the degree and type of coherence found in the external world is justifiable. As the act of observation orders the world, the subset of the world that can be observed and understood is the subset that can be ordered into coherence.

In the psychological case, one cannot trade one's own perspective for the perspective of another entity. To view the world from the perspective of another entity is to experience *being* that entity. So, if someone actually viewed the world from someone else's perspective, they would cease to be<sup>5</sup>. Being limited by one's identity does not imply that there is incoherence in one's own mind. It only implies that one cannot ever know information that is fundamentally asymmetric between any two distinct identities.

<sup>&</sup>lt;sup>2</sup> Indeed, it is structurally analogous to Sartre's concept of bad faith, which is something that we'll return to later.

<sup>&</sup>lt;sup>3</sup> As David Hume put it in An Enquiry Concerning Human Understanding: "The contrary of every matter of fact is still possible, because it can never imply a contradiction, and is conceived by the mind with the same facility and distinctness, as if ever so conformable to reality. That the sun will not rise tomorrow is no less intelligible a proposition, and implies no more contradiction, than the affirmation, that it will rise. We should in vain, therefore, attempt to demonstrate its falsehood. Were it demonstratively false, it would imply a contradiction, and could never be distinctly conceived by the mind."

<sup>&</sup>lt;sup>4</sup> Indeed, the fact of existence itself implies one uncaused cause, the world's apparent preference for something rather than nothing.

<sup>&</sup>lt;sup>5</sup> Even if a soul, assuming they exist, miraculously possessed the mind and body of another person, viewing the world from their perspective, and then returned to their own mind and body again afterward, retaining the information of the other's perspective, that information would still be interpreted through their own perspective. Even with this flagrant break from the laws of physics, one cannot experience anything that one is not.

Uncertainty does not imply incoherence in the world. It certainly doesn't establish fundamental incoherence in the mind. This uncertainty is often used to justify the belief that since the coherence of the world cannot be known absolutely, it might as well be incoherent<sup>6</sup>. In this ontology, the mind would inherit natural incoherence from the world, or an incoherent mind might be better able to function. But, this claim to incoherence is just as bad epistemically as assuming that all knowledge *can* be known absolutely. At least from my personal observations, it's certainly much worse practically for the believer and everyone he encounters.

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Thirdly, I must distinguish between being *incoherent* and being *wrong*. The distinction is analogous to the validity of an argument versus its soundness. One can be entirely coherent and internally consistent while still being wrong, failing when the truthfulness of one's theory is tested against the practicalities of the external world.<sup>7</sup>

One may be so right in theory and so wrong in practice that one is describing a world that is entirely coherent and *could* exist somewhere, but that simply is not the world that one practically observes and inhabits. One can also be incoherent and happen to accurately describe the reality one lives within, either randomly or through some mechanism obscured from both the self and external observers.

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Lastly, it must be established that the individual mind is a single structure. Even in the most extreme cases of dissociative identity disorder<sup>8</sup>, the DID patient still possesses a mechanism that causes them to alternate between identities and generate new ones according to an introspective or external stimulus. That mechanism unifies the structure of the mind even if it also partially compartmentalizes it. Even if it is possible to describe the individual personalities of the DID patient as discrete agents, they remain part of the whole set of minds localized to a given body. The fragmentation of their personality is relative, not absolute.

Though perhaps appearing as an ontological jump, the same could be said of a city or a culture, where the individual persons that comprise the culture may act individually, but still be held

<sup>&</sup>lt;sup>6</sup> Most recently in Postmodernism, and perhaps first in Al-Ghazali's *The Incoherence of the Philosophers*. A note must be made to distinguish the claim that the world might as well be incoherent from many individual Postmodernist thinkers who documented that a lack of absolute knowledge produced socially generated incoherence, while maintaining agnosticism as to whether or not the world they inhabited was coherent.

<sup>&</sup>lt;sup>7</sup> Foucault gave this example in Madness and Civilization, trans. from French by Richard Howard: "The man who imagines he is made of glass is not mad, for any sleeper can have this image in a dream; but he is mad if, believing he is made of glass, he thereby concludes that he is fragile, that he is in danger of breaking, that he must touch no object which might be too resistant, and that he must remain motionless, and so on. Such reasonings are those of a madman, but we must note that in themselves they are neither absurd nor illogical. On the contrary, they apply correctly the most rigorous features of logic."

<sup>&</sup>lt;sup>8</sup> Previously referred by the psychological establishment as "multiple personality disorder" or MPD, though colloquial use still often uses multiple personality disorder.

together by the collective agency of the culture. Though I have quite a bit of quarrel with the content of Minsky's own model of a "society of mind,9" the basic idea that the mind is a colony of individual units that themselves comprise an individual seems to hold.

The individuality of a mind is a matter of description. When we see a Portuguese man-of-war, the primary reason that we treat it as one organism, as opposed to a colony of individual polyps, is that the description of the man-of-mar as a single agent is a better description of the primary physical state of the colony of polyps. It is only relevant to describe the man-of-war as a symbiotic colony of polyps when we seek to understand the internal behavior of the organism.

The same is true for any multicellular organism, and even for individual cells. It is only correct to discuss the cell's mitochondria when we need to speak of the mitochondria as a separate agent, an organelle affecting the internal behavior of the cell in question. When a set of individual types of behavior are sufficiently localized that the character of that locality cannot be maintained without that behavior all active within the boundary of the locality, we term that locality an individual. By decomposing the individual into its parts—dividing it—it loses its defining characteristics, and thus its individuality.

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If the individual mind must be unitary, does it not possess an internal impetus to unify its beliefs into one coherent whole? This impetus may be only the simple fact that all of the information contained within the mind has a chance of interacting with all other information contained within the mind.

Over an infinite amount of time all information within a mind will interact with all other information an infinite number of times <sup>10</sup>. Even if limited by the total size of the information that can be held in conscious awareness at any given time, one can expect that the mind will have to account for information in variable combinations. Even with a hard limit on the size of the combination that can be assessed in the mind's working memory, an organism capable of language—such as a human—should be able to *name* individual combinations and then refer between them. One can compare San Francisco to Los Angeles without having to go through an inventory of each agent and location that exist within each of those cities, or even have a clear definition as to those cities geographic boundaries.

This associative algorithm can be corrupted to be incapable of viewing some permutations or classes of permutations, causing sets of combinations to never interact. However, without an external stimulus, without something that causes the individual mind to no longer be individual, such self-obfuscation cannot occur. The justification for this is the simple tautology described above: By decomposing the individual into its parts—dividing it—it loses its defining characteristics, and thus its individuality. An individual mind lacks the justification for dividing itself. If it did not have the intention to preserve its pattern of behavior, it never would have

<sup>&</sup>lt;sup>9</sup> Described in Minsky's eponymous 1986 book.

<sup>&</sup>lt;sup>10</sup> Though a bit metaphysical, one could say the same thing about all of the information contained within the world as a whole.

existed in the first place. Should it have the inherent intention of dividing itself, it would have done so already. An individual can consciously and willfully split their mind to ensure that given sets of information cannot ever come into contact with one another, but the justification for this behavior cannot be found in the individual, and thus must be external<sup>11</sup>.

Given this, I conjecture that the mind will modify the information held in awareness to no longer be contradictory as it assesses various combinations of said information. Thus, I do not believe that it is possible to willfully hold incoherent beliefs without some other, coherent will that supports the incoherent belief. I do not believe that simply unintentionally being affected by combinations of information that randomly arise to be the only process active in the human mind that attempts to integrate the mind's information, only that it is the least contestable and perhaps the weakest. We must accept that the human mind possesses an internal impetus to create an internally consistent ontology. We must also accept that such an ontology must be at least as representative as required to allow the mind to traverse the world that it inhabits well enough to avoid bodily death. But, even lacking any other process that attempts to intentionally unify the information other than the tautology that the mind contains the information it contains, this process implies at least slow integration of beliefs over time.

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You, reader, may of course respond that there is no reason to believe that the mind must have a will to make its beliefs coherent. But, we can simply approach the problem from the inverse. How would the mind have a will to incoherence? Incoherent will must be impossible, as the very act of having a will to *something* means having a way of specifying one's action towards optimizing for that thing to exist. That which that the mind desires to exist must be specifiable and understandable by the mind so that the mind can organize its behavior in pursuit of its desire, even if that understanding is unconscious or implicit. Desire cannot be incoherent. Incoherence is not specifiable. One cannot act on a statement that is not specified, as one simply cannot interpret it.

As a thought experiment, think about the behavior of an individual attempting to list "random" words so that no coherent association can be made between one and the next. The second word will necessarily be influenced by the first, the third by the second, and so on, simply because the words have been spoken in that order, and if the individual has any short term memory whatsoever they will not forget what they said mere seconds ago. The words must also be influenced by the sum total of other memories that the individual has, including the phonemes that the individual knows how to pronounce or write.

Furthermore, the *act* of trying to exhibit randomness is still a function in the mind of the individual. So, the pseudo-random content will still have a tone in common particular to the person simply because it was all generated by that person. While the individual attempting to be

<sup>&</sup>lt;sup>11</sup> Additionally, I am counting a breakdown of the mind's neurological hardware as an external stimulus. A man suffering from dementia, who is suddenly roused by music from his youth but could not consciously remember the tune of *We'll Meet Again*, does not experience the degradation of his faculty for memory as something under his own volition, and indeed experiences the degradation of his memory as an assault on his self, not the realization of it.

random may feel as though they are being totally random, giving themselves over entirely to their task and suppressing their short term memory, they may also be observed externally to be being merely pseudo-random in a matter particular to their own personality and personal history. As it is hypothetically possible to describe the idiom of their randomness from an external perspective with enough intelligence to characterize it and thus form a coherent model of it, they cannot actually be behaving randomly, and cannot be exhibiting total incoherence from both their own and all other perspectives. In other words, their incoherence is necessarily subjective, rather than objective.

Another example: An anecdote from Aaronson's *Quantum Computing Since Democritus*, concerning the Aaronson Oracle<sup>12</sup>:

In a class I taught at Berkeley, I did an experiment where I wrote a simple little program that would let people type either "f" or "d" and would predict which key they were going to push next. It's actually very easy to write a program that will make the right prediction about 70% of the time. Most people don't really know how to type randomly. They'll have too many alternations and so on. There will be all sorts of patterns, so you just have to build some sort of probabilistic model. Even a very crude one will do well. I couldn't even beat my own program, knowing exactly how it worked. I challenged people to try this and the program was getting between 70% and 80% prediction rates. Then, we found one student that the program predicted exactly 50% of the time. We asked him what his secret was and he responded that he "just used his free will."

Is the one student who "used his free will" taking an intentional incoherent action? I think not. The action still can be specified with the objective of attempting to trick the oracle into failing to predict them by predicting the oracle. When I've tested myself against the Aaronson Oracle, I do not necessarily have a clear and explicit reason for why I choose f or d. I certainly doubt that the student that got a 50 could explain the process that he used to predict the oracle. In order to trick the oracle, one must appear incoherent to the oracle, but the act of appearing incoherent is itself a coherent, non-contradictory action. The simplified example of the oracle extends fairly naturally to most any combinatoric strategy game, such as chess, go, or the hypothetical sport of competitive password guessing. The existence of apparent willful incoherence does not imply an incoherent will. Again, the observed incoherence is subjective.

And, so, now that the will to incoherence has been invalidated, we can move back to the main question of this post. How, lacking a willful desire for real incoherence, can individuals nonetheless hold incoherent beliefs? If a desire for incoherence cannot be found inside any individual, it must be found outside the individual in the pattern of interaction *between* individuals.

<sup>12</sup> A copy of the Aaronson Oracle can be accessed here: people.ischool.berkeley.edu/~nick/aaronson-oracle/

Incoherent behavior must be a social phenomenon. Any individual agent, acting according to their desires, will produce a coherent pattern of behavior as they modify their environment. It is only through interactions between individuals that incoherent thought emerges<sup>13</sup>.

<sup>&</sup>lt;sup>13</sup> Though my formulation of the evidence is new, this conclusion certainly is not. Nietzsche wrote, in 1886's Beyond Good and Evil that "In individuals, insanity is rare; but in groups, parties, nations, and epochs it is the rule."