No one has proposed, so far as I know, a correlate in cognitive science to Heisenberg's Uncertainty principle: let's call it the cognition-dissimulation hypothesis. It would state something like "Though there exist a multiplicity of legitimate modes of analyzing cognition, there is an upper limit on how much we can understand about our processes of understanding." That multiple modes are possible is not incidental; this indicates a single explanatory appartus is insufficient to explain the "breakthough" which occurs in learning or self-awareness. Cognition functions only in the presence of uncertainty, when the solution is not obvious, when we have exhausted all available options. Thus there is a sort of "upper bound" to any explanatory schemata of the cognitive process, since cognition is multiple rather than singular.

A person's behavior yield to many theoretical models, each with their own strengths and weaknesses. Likewise, our thoughts can be analyzed in many ways and according to many paradigms, which leads us to an impasse: because we have no further empirical criteria to go on in terms of an algorithmic model for cognition, we are left with a purely interpretative question. Which is, to put it frankly, just not the sort of thing computer scientists are interested in–a formula, a model, a schematic, OK, but not an interpretative issue. Unless interpretation itself is the critical issue.

The point, basically, is that it would defeat the point to decide in advance what a true AI would be; it would have to be able to decide for itself. The fact that cognitive science is such an interdisciplinary effort is evidence that this interpretative crisis is already widely recognized, namely, that no single theoretical model can bring us there. Yet, we must be clear, the "holy grail" of artificial intelligence is self-interpretation, pure and simply. Thus the problem is reflection, that is, awareness and time. You can think about this self-reflexivity as it relates to time by thinking about the infinite number of cognitive acts which can occur in a finite time, or even simultaneously. For example, right now we're already not just "thinking" but "thinking-about-thinking" and so on and so on.

Of course, the question of a model (whether a simulation or for a theory) immediately raises the question of structure. But if, as I've argued, cognition is non-linear (or, at least, not always or primordially linear,) how are we to understand a structure in thought at the pre-symbolic level (i.e., prior to logic, set theory) where cognition originates? Such a "structure" would have to be radically "de-structured," in other words, a multiple-and-simultaneous, non-linear, self-reflexive collection of self-evolving processes. How can we understand this? Perhaps a topological analogy can clarify: thinking is situated between itself and what is undetermined. We aim to make complete something which is fundamentally lacking, thus thinking is structured around what is missing in the situation. Thus any hope of algorithmic description seems to suffer from an "infinite ladder" problem–we'd need to know what in particular is "missing" from a given situation before it arises.

Let's summarize this with a second hypothesis: The structure of cognition is fractal. Thought is continuous but "asymptotic," that is, always operating at its ultimate limit. The mind that thinks progresses, iteratively, evolving intelligent adaptations in response to pressure, as a "economic" or strategic function. For this same reason, any purely operational thematization of cognition is doomed to failure, for the process(es) are just as much self-deluding as self-critical. Thought is known to unify at least as much as it divides and improves only in order to more completely

destroy–and then, of course, to fill the space thus opened up by thinking again. Thinking as the oscillation about the void point (of mystery, the structure of lack which defines a “problem” in the most general sense) and therefore, thought as the asymptotic coincide of subject and object–not emptiness as in a rupture, but positively-charged void. Conceived of in this manner, the process of cognition is pure operation (and is thus universal) and yet pure discourse (and thus subjective); this leads us to hypothesize that thinking is the pure investigation of the truth for yourself. Thus “truth shapes thought” is true only if “thinking is the creation of truth”; thus is thought without place yet also displacement itself. Self-symmetry is fundamental to the essence of cognition itself.