Prompt: Compare and contrast any two of the following theories: Dretske's informational semantics, Dennett's intentional systems theory, or Millikan's biosemantics. Which is preferable, and why? Of the preferable theory, what are one or two of the most serious challenges confronting it?

Informational Semantics theory and Intentional Systems Theory

October 2020

I will be evaluating Dretske's Informational Semantics Theory and Dennett's Intentional Systems Theory. Then, I will argue that Dennett's Intentional Systems Theory is more preferable, for that I consider it to be the more intuitive theory.

Dretske's informational semantics attempts to "ground meaning...in an objective, mind (and language) independent notion of information." He also claims that if symbols [have] meaning, this meaning would be primarily located in the world they are, or purport to be about. In other words, symbols are derived from the state of affairs or objects in the world, and their meaning is determined by the state of affairs in the world - in a normal condition. These symbols are, or supposed to be, reliable *indicative* signs for states of affairs in the world. For Dretske, when a symbol P indicates a state of affairs Q, P necessarily carries information about the state of affairs Q. For example, Dretske would claim that smoke (the sign) necessarily indicates fire (the event), whereas a Humean may not make such a claim. Even if this relation between P and Q is mind-independent, it is still necessary. Intentionality for the Information-Theoretic Semantic Theory is derived as such: the possibility of language depends on "the capacity of some living systems to transform information (normally supplied by perception) into meaningful (contentful) inner states like thought, intention, and purpose. After we perceive some state of affairs

(information), we (and other living systems) somehow transform this information into intentional states. We get intentionality through informational relations with our environment.

Dennett's Intentional Systems Theory is "an analysis of the meanings" of "mentalistic" terms. By not attributing *minds* to the things one interprets, Dennett's theory is supposed to avoid whether something truly has a mind or not. His central claim is "anything that is usefully and voluminously predictable from the intentional stance is, by definition, an intentional system". This system is the "strategy of interpreting the behavior of an entity by treating it as if it were a rational agent who governed its 'choice' of 'action' by a 'consideration' of its 'beliefs' and 'desires'." There is also the physical stance and the design stance. The physical stance is when we have an attitude towards an event that will follow some kind of law of physics, such as releasing a rock and expecting it to fall to the ground due to gravity. While we might be consciously predicting that the rock will fall to the ground, we nonetheless expect it to do so passively. Both the design stance and the intentional stance are different in that they are teleological stances. With the design stance, we predict that objects that are designed to perform specific functions will perform those functions in the right situations. The intentional stance is a subspecies of the design stance. Dennett's claim goes as far as to include thermostats and alarm-clocks to be intentional systems.

Dennett's Intentional Systems Theory is preferable for the following reasons. While both of the theories are flawed, Dretske's theory faces more difficult issues. One of the issues is disjunction. There are no real guidelines for what a 'pure' or 'normal' case is. He tries to save his theory by claiming that natural meaning, indication, and information are all context dependent. However, there are still no clear boundaries or categories that establish how the information changes based on context. The only way to know what the context-dependent conditions actually

are seems to be based on intuition and arbitrary guessing. If the premise of the argument is to derive mental representations through perception (which transforms information), the error in some kind of judgment that produces a mental representation different from what it was supposed to represent, would be based on the error of perception. However, in spite of this error in perception, one will still adopt the same intentional attitude towards the object that was perceived.

Dennett's theory has two challenges. It seems ridiculous to say that computers or inanimate machines exhibit intentionality, as there are usually certain attitudes such as belief that are attached to intentionality. Then, one can claim that when we adopt the intentional stance towards something like a computer, it is a "useful fiction" to predict the behavior and mechanisms of that object. Yet, when we use the intentional stance towards ourselves and other human beings, we do not think about this notion of "useful fiction". Rather, we are engaged in literal descriptions of what is going on. This begs the question of whether or not taking an intentional stance towards something is really sufficient for it to be an intentional system.

The second issue is that it seems like systems with more intentionality, such as people and animals, are significantly less predictable than systems with less intentionality (i.e., computers, plants, cells). If I adopted an intentional stance towards a stranger on the street, it would be extremely difficult to "usefully and voluminously" predict anything regarding that person. However, if I saw an apple tree, I would predict it to grow apples at the right time of the year while adopting the intentional stance towards it. If Dennett was right, this would mean that the apple tree is an intentional system, while the stranger on the street would be less compatible with Dennett's notion of intentionality - therefore less of an intentional system.

This inverse relation of intentionality might be explained by phenomenal consciousness and how that might affect intentionality. While it might be conceivable on Dennett's account that computers are intentional systems, it is significantly less conceivable that computers have the same phenomenal consciousness as us.