Everett, Daniel L. Dark Matter of the Mind: the Culturally Articulated Unconscious. Chicago, IL: Chicago University Press, 2016. Pp. 378 + xvi. ISBN-13 978-0226070766. \$40.

American linguist Daniel Everett gained prominence and notoriety for his best-selling book Don't Sleep, There are Snakes: Life and Language in the Amazonian Jungle (Pantheon, 2008), which tells the story of his experiences living among the Pirahã people and his study of their language. Everett was a Christian missionary when he and his family first came to the Amazon Basin to live with the Pirahã. He lost his faith when he discovered that the Pirahã neither understood concepts necessary to make sense of the Christian story (e.g., desert, the death penalty, sin), nor had any interest in acquiring them. Everett's atheism has been the subject of much discussion, but his controversial status within academia is due in large measure to his rejection of Noam Chomsky's theory of universal grammar.

The disagreement between Chomsky and Everett will sound familiar to students of early modern philosophy. Chomsky follows the Cartesian rationalist tradition according to which some non-trivial truths are known by reason alone. He explains the incredible diversity of human languages, and the ability of young children to acquire languages, by positing a universal grammar, whose structure is innately known to all humans, instantiated in the syntaxes of all natural

languages, and distinct from other forms of cognition.

In An Essay Concerning Human Understanding, John Locke argues the mind of an infant human is a tabula rasa, or blank slate. No mental content is innate; all ideas come from sensory experience, though humans can mentally manipulate sensory information to produce complex ideas and arrive at new conclusions. In Dark Matter, Everett plays the empiricist foil to Chomsky that Locke was to Descartes. Like Locke, he rejects innate ideas, which he thinks play no explanatory role, and an alternative to Chomsky's rationalism inspired by Michael Polanyi.

At times he goes quite far in speaking of human minds as blank slates, even comparing his view "to the Buddhist notion of *anatman*, the idea that humans nave no nature and no self apart from the experiences they have united in their memories" (4). But here Everett's characterization of his own view is slightly misleading, in isolation from other things he says. Far from claiming that humans have no nature, Everett develops a substantive account of human nature according to which humans are fundamentally cultural beings and all mental content is culturally influenced.

At the center of this account is what he calls the "dark matter of the mind." Physicists tell us that much of the matter in the universe does not compose visible objects like stars and planets. Everett claims many of the beliefs, ideas, and values we manifest in our behavior are likewise not "visible" to our conscious

reflection. "Dark matter of the mind," he writes,

is any knowledge-how or knowledge-that that is unspoken in normal circumstances, usually unarticulated even to ourselves. It may be, but is not necessarily, ineffable. It emerges from acting, "languaging" and "culturing" as we learn conventions and knowledge organization and adopt value properties and orderings. It is shared and it is personal. It comes via emicization, apperceptions, and memory and thereby produces the "self" (1).

"Emicization" terminology anthropologist borrowed from the Kenneth Pike and means, in Everett's words, "the achievement of the perspective of the insider" (64). To someone who is not from the Amazon, a slight movement of a branch might not seem to have any significance, but for the Pirahã this same observation could be pregnant with meaning. It could convey imminent danger through signs so subtle that not even the people who have internalized them and know how to respond to them can easily articulate what they are.

There is an obvious affinity between Everett's "dark matter" and the notion of tacit knowledge in Polanyi's *Personal Knowledge* and *The Tacit Dimension*. This is roughly the idea that we know more than we can tell. Polanyi argues knowledge has a "from-to" structure, meaning that knowledge involves a triadic relation

between an epistemic agent, the signs she reasons from, and the conclusion they point to (PK 59, 173; TD 17-18). Some of the signs reasoned from will not be within the agent's immediate conscious awareness and some of them may not even be discoverable through introspection (e.g., recognizing the face of a friend). Polanyi says we "indwell" the signs we reason from; the process of coming to "indwell" signs appears to be the same thing as Pike's "emicization."

Everett credits Polanyi for being one of two important thinkers in the latter half of the twentieth century to have explored tacit knowledge, the other being Chomsky. Everett sees Polanyi as providing an alternative to Chomsky's "nativist" approach to tacit knowledge, since for Polanyi this knowledge is acquired through experience rather than being innate (11). Everett nonetheless seems, at one point, to want to distinguish his "dark matter" from Polanyi's tacit knowledge, writing:

Polanyi's focus was unlike mine in that it was not so much on culture as on subroutines and components of large intentional acts...My concept of dark matter, on the other hand—to slightly paraphrase George Harrison's quasi-eponymous song—is "within us and without us," at once embodied in individual humans at the same time that it serves as a connective force between members of a given society. It includes our tacit

collective intentions to maintain cultural values and knowledge that binds cultures together (13).

Although I wouldn't expect Polanyi to quote the so-called Quiet Beatle to make his point, I don't think there's anything here Polanyi would disagree with. In fact, I don't believe there is even a difference of emphasis between Everett and Polanyi on this point. Polanyi's tacit knowledge is cultural in nature just as Everett describes. Everett probably could have faithfully adopted Polanyi's terminology had he wanted to, though there is something poetic about the analogy between tacit knowledge and dark matter.

Everett has for years been mounting an empirical challenge to Chomsky's universal grammar. Chomsky's theory predicts that all natural languages feature recursion, meaning there is no non-arbitrary limit to how long a grammatical sentence can be. In his books and many academic articles, Everett argues the Pirahã language lacks recursion and other features that Chomsky's account predicts it should have. In Dark Matter, Everett not only defends this longstanding critique, he also challenges assumptions in other fields such as anthropology and cognitive science. Indeed, he suggests the entire field of cognitive science may rest upon a mistake:

Cognitive scientists never examined in detail the foundational relationship of culture to mind, the mind as an outgrowth of culture. The reason seems to

follow from the misleading idea that the mind is a digital computer, an evolved software running presently (but not necessarily) on neurological hardware. The metaphor is fragile, though. For example, unlike the brain and body, computer software doesn't grow biologically from its hardware...Nor do computers possess emotions—one of the primary drivers of human cognition (10, internal citations omitted).

In Everett's opinion, myopic fascination with rapidly-developing computer technology has made cognitive scientists eager to dismiss these crucial differences as being unimportant. Instead of seeing culture as something that arises from individual, computer-like human minds, we should understand human minds as being embedded within cultures. To paraphrase Everett, we can't understand what's in the mind (i.e., mental content) without understanding what the mind is in (i.e., culture).

Everett's interdisciplinary approach to philosophical questions, and his willingness to dispense with conventional wisdom, make *Dark Matter* an interesting read. I found chapter 7, "Gestures, Cultures and Homesigns," especially interesting. Although it has long been known that people of different cultures exhibit different patterns of gesture, and that gestures can take the place of words in grammatical sentences, linguists have regarded gesture as falling outside language

proper. Everett writes, "But gestures are not simply add-ons to language. There is no language without them. And there are no gestures without dark matter" (228). If he is right, then linguistics should be far more integrated with other social sciences than it now is.

Everett pursues ambitious theoretical goals and shows a willingness to challenge orthodoxies in the social sciences. He makes a powerful case that knowledge should be unified in ways that disciplinary boundaries fail to reflect. But his ambition comes with a price. Everett frequently wades into deep waters in linguistics and anthropology, all the while making it clear many of the positions he advocates are minority positions. Since I am an outsider to all of these fields except philosophy, I'm not able to assess many of the claims he makes. And I am not alone—the audience competent in philosophy, anthropology, linguistics, and cognitive science is bound to be small. Without this kind of wideranging expertise, it's hard for any reader to be justifiably confident that Everett's ambitious project is successful.

Three positive takeaway points none-theless deserve emphasis. First, Everett's book shows Polanyi's ideas can be fruitfully applied to contemporary debates in the social sciences, and that his insights align with those of other thinkers, notably Kenneth Pike. That's an indication that Polanyi was onto something. Second, Everett plausibly challenges many assumptions that linguists and other social scientists make. Third, and I think most importantly, it's impossible to read

Dark Matter of the Mind without rediscovering the strangeness and complexity of human culture (e.g., his discussion about the mysterious connection between culture and body type, 72-76). That alone is worth the price of admission.

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