

David R. Olson. *Making Sense: What It Means to Understand.* Cambridge University Press 2022. 208 pp. \$110.00 USD (Hardcover ISBN 9781316513330).

David Olson's book on how understanding occurs and how we make sense through understanding, is about understanding as interpretation: we propose and discuss among ourselves different interpretations of ourselves, our societies, and the natural world. Understanding does not require nor always involve sudden holistic insights, neither of our own selves nor of our societies and the natural world. Nor does understanding involve the development of specialized skills. Rather, understanding is developed both in children and adults through engaging in argumentation about different proposed interpretations where validity and truth are hard-won achievements gained through joining in public and internalized discussions. In the words of Olson: 'What it means to understand is to know the criteria for correctly ascribing understanding to oneself or others. These criteria, truth and intersubjectivity, are articulated in the various speech and textual communities that one is a participant in' (179-180). Let us look into how Olson worked out his understanding of understanding, especially as internalized dialogue about different interpretations. How did Olson develop his understanding in terms of ascribing the word 'understanding' and its cognates to others and ourselves?

Olson's theory of understanding synthesizes the analytic philosophy of language and cognitive science, involving corrections to both sides of the synthesis. On the cognitive science side, Olson corrects the over-emphasis on subjectivity: young children have a subjective experience of understanding that stems from their involvement in their own social world even as both pre-literate and pre-verbal. At one time Olson emphasized cognitive science side of understanding, while he was a disciple of Jerome Bruner, the psychologist who fomented a revolution in the development of cognitive science. On the analytic philosophy of language side, Olson corrects the over-emphasis on objectivity that pivots on the axial Fregean distinction between meaning or sense and reference. Analytic philosophy tends to focus on the *identity conditions* of *mentalese*, the words or *concepts* we use when discussing feelings, emotions, beliefs, personal knowledge, knowing, and understanding. Olson realized a correction was needed, first to the subjective side of his attempted synthesis, in his own experiments and others with children of various ages, from pre-school through to the early years of schooling when children had developed speech and reading skills: roughly put, pre-literate children may have displayed beliefs, but had no theory of their own minds, let alone a theory of other minds—that other children could have beliefs, and even engage in deception. Second, the analytic philosophy of language side of the synthesis left out the subjective aspect of the sensory-emotional feeling side with its expectations, predictions, and self-correcting adjustments in the sensory-emotion system/side as children engage with others, and with reading and writing, in the school years. However, by investigating children's use of (public) language to apply third-person descriptions of their own mind, Olson was able to see how children, and later adults, develop and apply concepts (where Olson came to realize and argue that concepts are word meanings) for understanding their subjectivity as inter-subjectivity. In sum: examining the development of how children learn the public language for understanding, and its cognate terms in various social situations, we find how



understanding and its cognate terms develop; help children enter the culture of rational discourse concerning how we think, understand: and make sense of our own subjectivity and the world. An interesting offshoot of Olson's theory is his own theory of how discourse in the political and ideological realms has broken down: a silent refusal to entertain the beliefs of others, and an uncritical commitment to one's own beliefs, without attempting to subject one's own beliefs to rational discourse: a refusal to take seriously counter-evidence to what one believes where counter-evidence is treated as *fake news* due to some conspiracy of the so-called chosen few (Chapter 13).

I think what Olson teaches in his book, and I say 'teaches' to emphasize the educational application of Olson's theory of understanding, is this: children are not born all-knowing who just need to be reminded of what they know (contra Plato and contra Rousseau), nor are they born with blank minds (contra Locke), but they do need to learn the basics required for functioning in literate cultures. All humans are 'amateur hermeneuticists' and need to 'entertain many possible solutions [interpretations] before arriving at one that could be taken as true' (104). The truth of it is: we need educational systems that promote literacy, reasoning, and the critical evaluation of truth-claims, where not everything goes, and where children are neither little geniuses nor total dummies. Children still require instruction in how to entertain different beliefs, theories, interpretations, or simply understandings and senses of the world, self, and others. Dewey aside and Piaget aside, self-guided play is not enough; though indoctrination is too much; but, learning to interpret and use reason in considering different interpretations is on track.

A critic who does acknowledge that rationality in the sphere of understanding as hermeneutics, or the interpretation of text and discourse, is needed, may still object as follows: in the sciences, social and natural, understanding requires not interpretation but explanation—explanatory hypotheses that are tested experimentally, in the cognitive sciences as well. Understanding is two-tiered: the humanities emphasize hermeneutics, interpretation, or textual analysis; the social and natural sciences emphasize explanation. Hence, Olson's theory of understanding, though far-reaching as a form of hermeneutics, is fine for history, archaeology, philosophy, and literature, but does not go very far in the social and natural sciences.

Regarding educational and social issues that are of concern to Olson, the theory of understanding as hermeneutics falls short: educationally, children, or at least teenagers, require learning in how to subject hypotheses to experimental testing, data gathering and analysis. In politics and ideology, even adults need to learn how to entertain hot topic issues, such as climate change, not as belief-systems that we have in religious systems where discussion ends when belief or faith and commitment take over, but as explanatory models subject to revision, depending on the outcomes of theoretical argumentation, experimentation, and data gathering and analysis. Does this objection that Olson's theory of understanding where humans are 'all amateur hermeneuticists,' leave out understanding as involving explanatory models? Does understanding as exclusively hermeneutics open up a gaping gap in Olson's theory of sense-making as understanding? Do we need a theory of sense-making as developing explanatory models, a logic of scientific discovery, to close the gap?

To answer this question, let me briefly outline the famous physicist Richard Feynman's dilemma. The dilemma is that physicists know how to use the algorithms for Quantum Mechanics (QM), but

do not understand them. Instrumentally speaking, the algorithms work; but intellectually speaking, they do not make sense and create the seeming paradoxes of entanglements, illustrated famously by Schroedinger's thought experiment with the simultaneously dead/live cat: 'I think I can safely say that nobody understands quantum mechanics. So, do not take the lecture too seriously, feeling that you really have to understand in terms of some model what I am going to describe, but just relax and enjoy it. I am going to tell you what nature behaves like. If you will simply admit that maybe she does behave like this, you will find her a delightful, entrancing thing. Do not keep saying to yourself, if you can possibly avoid it, 'But how can it be like that?' because you will get 'down the drain,' into a blind alley from which nobody has yet escaped. Nobody knows how it can be like that.' (*The Character of Physical Law*, 1965, 129). One could say, that the twin problems of interpretation and decoherence in philosophical/theoretical physics results from the Feynman situation that we have an explanatory model of a system of equations/algorithms that work perfectly, but that no one understands. The problem of interpretation is simply how do we interpret the QM algorithms—as indicators of an underlying reality of chance or propensities, or of a multiverse, or of hidden variables, or as functions of pilot waves. The problem of decoherence has to do with how the strange micro-universe of QM fits in with the ordinary universe at the macro-level, that Niels Bohr treated as the classical world in which observers and experimenters inhabit. Hence, the explanatory models used in physics require interpretation—a hermeneutics that helps us make sense of how our algorithms hook into reality, how come they work instrumentally, and at the least provide near-truths for us. Humans indeed are 'amateur hermeneuticists,' and though the natural world is not a text, the natural world does require interpretation.

The point is that critically discussing interpretations, among and within ourselves, is what we do when we attempt to make sense of ourselves, and the social and natural worlds.

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