

## Review of: "On the Meaning of Psychological Concepts: Is There Still a Need for Psychological Concepts in the Empirical Sciences?"

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Comments (*not a review*) on the ms. Entitled "On the meaning of psychological concepts: Is there still a need for psychological concepts in the empirical sciences" by Mika Suojanen.

After a thorough reading of this paper, I have decided I must decline to write a review. But I will detail why I am declining and provide a few general comments. I recommend that this paper be rejected because the section on Gibson's ecological theory of perception is so incorrect that I conclude the author does not understand Gibson's work, or the approach to perception that is termed 'direct perception'. If this paper were published as it is, it would only add to the misinformation and confusion that already exists regarding direct perception. Specifically, why quote Gibson's first book from 1950, which was entitled "Perception of the Visual World", when he himself rejected some of those early ideas as inconsistent with the direct perception approach? That is, in the 1979 book, An Ecological Approach to Visual Perception, he says he should not have used the phrase 'visual world', when what he meant was 'the world'. The author of this ms. wants to emphasize the difference between vision and the world, which Gibson was at pains to avoid, with his new mutualist theory of perception. A critical idea in direct perception is that of embedded systems of perceiving/acting, which, at the highest level, involves the whole organism. To emphasize this idea, Gibson repeatedly stated that perception is not the stimulation of sensory organs, which stimulation has to be acted on somehow by other systems, in order to result in perception. As an example of this argument, Gibson claimed that there exists no such thing as a retinal image (see Read & Szokolszky, 2020, special issue of Frontiers on Enactivism and Ecological Psychology, and Turvey and Carello, 2020, chapter in Perception as Information Detection). Everything the author says about the sensory basis of perception shows that they misunderstand Gibson.

Finally, the author is correct that there is a contradiction between some psychological ideas/theories and empirical research, including empirical research in psychology, but they are wrong about the source of the contradiction. An empirical scientist who observes the phenomenon they are studying (as opposed to the mathematical/speculative sciences of the imperceptible, such as particle physics) assumes two contradictory ideas, *if* they subscribe to the sensation-based indirect theory of perception. The representational approach to perception entails the 'signals' of the



senses being acted upon by some other (mental) system to be turned into 'percepts'. Most people in our Western culture make this assumption consciously or not, and whether they are educated or not. But if empirical scientists, at the same time, assume that they can actually and accurately perceive the phemenona they are studying, they are contradicting their own assumptions about how perceiving takes place. For example, a scientist who observes chimpanzee behavior in the wild, or one who observes chromosomes with a microscope, if they assume that what they see is actual, accurate, and empirical, cannot, without contradiction, assume that perception is indirect and based on mental representation (which entails an infinite regress in knowing). It follows that the contradiction for empirical science is not between introspection (that is, self-awareness of thinking) and empirical study, but, rather, between the assumption of representational indirect perception and empirical science.