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Perception, Skill, and Cognitive Penetrability

Most debates about the cognitive penetrability of perception focus on whether propositional thought can impact perceptual experience. In a related discussion, enactive theories of perception claim that sensorimotor skills are constitutive of a perceptual event. As such, enactive perception comprises a radical form of cognitive penetration. However, an account of how we ought to understand the relationship between skill and perception such that it produces a legitimate instance of cognitive penetration has not been developed.

In this talk, I lay out the conditions, which must obtain if we are to accept that skill or knowing-how may cognitively penetrate perception. I do this by (1) examining the definition of cognitive penetration, (2) identifying the cognitive aspect of skill and, (3) specifying the relationship between the cognitive aspect of skill and early perceptual processing that, if it obtained, would constitute a genuine case of cognitive penetration.

I begin with Zenon Pylyshyn's definition of cognitive penetration and offer a way to amend this definition so that it does not, by fiat, rule out the impacts of non-propositional states. In order to do this, I ask what constitutes a semantically coherent or logical relationship to the functional processing of perceptual systems? In response, I appeal to Fred Dretske's theory of minimal rationality. Following Dretske, I argue that the relationship that must obtain between cognition and perception must be one where cognitive content is *explanatorily* relevant in accounting for the processing of a perceptual system. This means that cognitive content must do more than simply play a causal role—it must be explanatorily efficacious in accounting for the function of an early perceptual system.

In order to identify the cognitive aspect of skill, I examine the way that skills are developed. I argue that learning through practice guarantees that a skill is characterized by intelligence. The nature of practice, I claim, is indicative of the fact that what is learned through it is neither a propositional fact, nor an intention for action. Indeed, practice ensures the intelligence of a skill because what practice develops is a sensitivity to the relevant features of an action-space and the ability to respond to those features in a controlled and deliberate way. This is why practice affects not only the probability that a skill will be performed successfully, but the particular manner in which the skill is performed. I appeal to studies of selective attention to support the claim that practice develops this aspect of a skill. Further, I argue that both theoretical considerations and empirical evidence offer us a way to differentiate between the intelligence of skill and the purely physiological impacts of action.

Lastly, I argue that if the manner in which a skill is performed is related in an explanatorily relevant way to perceptual processing, then this relationship constitutes a genuine instance of cognitive penetration. That is, if appeal to the intelligence of skill is required in order to explain the function that a perceptual system computes, then that perceptual system is penetrated by cognition.