Buchbesprechung - Book Review

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Éric Trémault: *Structure and sensation*, Vrin, Paris, 2020, 196 pp.

Eric Trémault's (2020) *Structure et sensation, une critique de la psychologie de la forme* [*Structure and Sensation, an examination of Gestalt Psychology*] focuses on Wolfgang Köhler's (1887–1967) and Kurt Koffka's (1886–1941) explanations of the perception of sensory qualities, in particular colours. At the beginning of the 20th century, many scholars explained the perception of figures through the association of their elementary qualities. They argued that when we regularly perceive qualities together, we will associate them into the perception of a figure. For example, when we repeatedly perceive cold and white together, we will perceive a snowball. In this theory, the qualities are perceived independently from one another, remain constant throughout the processing inside the human body and then are bound together by an act of the mind. The Berlin Gestalt School opposes this view and reasons that first the sensory qualities are united into a whole and that this whole, in its turn, influences how we perceive its parts or the individual qualities. The perception of an individual quality, then, may not be the same when based on a different whole, although each time an identical sensory stimulus reaches the organism. Trémault mentions several experiments of the Berlin Gestalt School that refute the hypothesis of the constancy of colour perception.

Brain processes underlie conscious experience. This is, of course, very basic knowledge that was already well known at the beginning of the 20th century. The Berlin Gestalt School proposed that holistic neurological processes in the brain ground the conscious experience of a figure. We will follow Köhler's (1947) reasoning. First, he rejected the view as wrong that "Gestalten," i.e. segregated entities, exist outside the organism and simply extend or project themselves into the nervous system' (p. 160). Then he explained his view using the example of vision. We receive light waves from objects. In that information, however, 'no trace is left of the units which actually exist in the physical world' (p. 163). Obviously, this is an exaggeration, but it makes clear what he meant, namely that one has to reconstruct the physical world from the visual information reaching the retina. This reconstruction is made possible consequent to the way in which the sensory system is organised or the visual neurons are connected; 'this organization tends to have results which agree with the entities of the physical world' (p. 163). Köhler rejected the view that segregated entities exist outside and simply extend

or project themselves inside. This passage should not be understood to imply that there are no segregated entities that exist outside, nor that we don't have a good image of the outside world. His objection is aimed at the notion that the projection is done *simply*. Seeing, then, is not a projection from the outside to the inside. Instead, it is a reconstruction carried out by the neurological organisation of the visual system. Something is lost during the transmission in the visual rays and this is restored in the brain. Visual stimuli are received and then organised as figures in the brain. Trémault explains Köhler's theory of perception as follows: we may 'understand sensory unification as the result of a reciprocal attraction of proximal stimuli, or more precisely the physiological processes that result from them in the brain' (p. 68).

According to Trémault, the Berlin Gestalt School holds 'that there is isomorphism between the phenomenal structures and the physical structures' (p. 135). In other words, there is a structure-preserving mapping between the brain and the phenomenal experience. This calls for the question: Are our conscious perceptions just epiphenomena? Trémault noted that Koffka denied this to be the case. Trémault, however, disagrees on this point with Koffka. The Berlin Gestalt School's theory assumes that, 'psychic processes run only parallel to physiological processes' (p. 49) and this notion leads, according to Trémault, to the conclusion that conscious perceptions are epiphenomena (see p. 49).

Trémault compares Köhler's and Koffka's notions on how the whole influences the conscious experience of its parts. He concludes that at certain moments in their lives they came up with different propositions. His treatment of the thoughts of both scholars is detailed and based on a studious reading of their works. I will not discuss Trémault's treatment of Koffka's thoughts, but just mention his conclusion, namely that, 'Koffka gradually took a distance from his initial structural explanations, only to abandon them eventually, albeit implicitly, in his great work of 1935, *Principles of Gestalt Psychology*'. Trémault favours Köhler's explanations; however, he fully recognises that Köhler's specific hypotheses on how brain cells operate has been refuted. However, this doesn't diminish the contribution of the Berlin Gestalt School to our understanding of the perception of gestalten. It only means that scientists must come up with a better theory on how brain processes may explain the perceptual facts that the Berlin Gestalt School has demonstrated to exist (see p. 14).

Trémault gives in his introduction an assessment of the Berlin Gestalt School's pertinence for today's psychology and philosophy. In his words, 'We also hope to show that this is still an essential perspective for psychology and the philosophy of perception in general' (p. 16). I think he succeeded. His study is a welcome reminder of the relevance for today of perceptual theories developed in the first half of the 20th century. I have only one minor comment: Although this book is a scholarly work intended for serious students, there is no index.

References

Köhler, W. (1969). *The Task of Gestalt Psychology*. Princeton NY: Princeton University Press.

Trémault, E. (2020). *Structure et Sensation, une critique de la psychologie de la forme*. Paris, France: J Vrin.

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