

KARL JASPERS FORUM
Target Article 32 (Muller)

Commentary 10

FORMING THE ECOLOGICAL SURROUND

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Abstract:

A variety of studies of cognitive processes prompt collegial warrant for the proposition that, at this point, psychologists can profitably undertake the task of developing constructions (epistemic collages) about the ways in which persons (including scholars) develop and use personal epistemic collages (constructions). At this point, we can gain from developing explanations of why persons (including scholars) ascribe value to maintaining the dualisms – particularly the appearance/reality construct – that have been handed down from ancient philosophies.

Key Words: constructions, illusions, warranted verifiability, reality, belief

<1>

At one time, psychologists assumed that significant insights would be gained, relative to experience and action, through the methods of psychophysics. Psychophysicists believed that they would find ways demonstrate direct

relations between experience and those events in the world that could be described by a description of quantifiable physical properties.

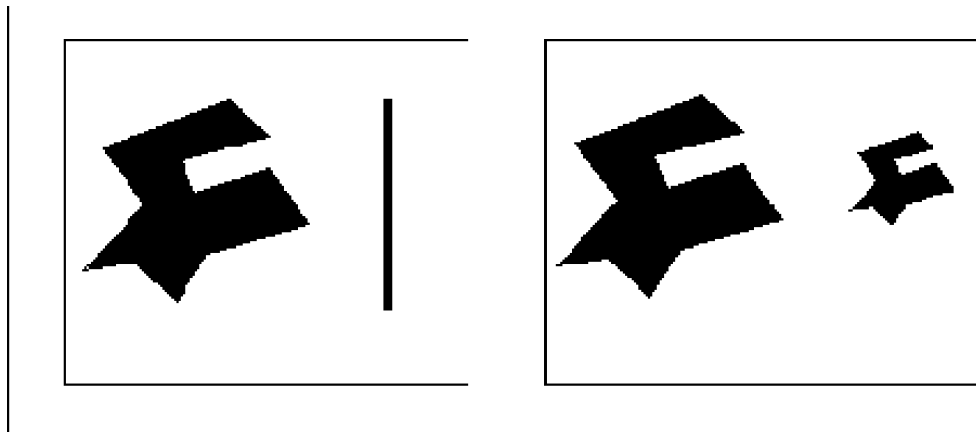
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Then, early in the 20th Century, Wertheimer (1912/1961), using a simple demonstration, showed that persons would report an experience that had no counterpart in the physical world, as it could be measured and quantified by experimenters. Recall that Wertheimer's demonstration of the phi-phenomenon requires, essentially, that the investigator, in a darkened room, position two lamps within the visual field of an observer. The lamps are then alternately extinguished and lighted, with an interval of about 350 msec. between the lightings. The observer then reports that she/he "sees" the lamp moving back and forth, and will even trace the trajectory across the intervening space.

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A demonstration adapted from the work of Shepard and his associates (Farrell & Shepard, 1981; Shepard, 1975) can amplify the point to be made by Wertheimer's original work. Assume that a person seated in front of a screen on which the investigator projects the left polygon in Figure 1A. The projection of the figure is terminated, and the vertical line on the right of Figure 1A then is projected on the screen at a position somewhat to the right of where the polygon had appeared. Viewers report seeing the first figure rotate through space, and stopping so that they have an edge-on view of the figure. Further, as one might

expect, some people report having seen the figure rotate in a counterclockwise direction, whereas others report that it had moved in the clockwise direction.



A. 90... Rotation
in depth

B. Displacement
in depth

FIGURE 1. Two examples of two dimensional, flat shapes that viewer sees in his/her frontal plane. The left figure is first projected on a screen. The left figure of the pair is turned off and the right figure is then turned on. Viewer reports what he/she "sees."

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Following through on the principle established by Wertheimer's earlier work, one can come up with a solid hypothesis of what a viewers will report when they view the same sequential presentation of the left polygon in Figure 1B, followed by the extinguishing of that figure and then following with a presentation of the right polygon in Figure 1B. Most other viewers, will report having seen the first figure "moving" slightly laterally to a position some distance back from the position at which that first figure

had been presented. One also can understand that if the right polygon in Figure 1B were presented first, followed by the presentation of the left polygon in Figure 1B, viewers would report that the figure moved forward and laterally to the left.

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These demonstrations add to the cogency of the Wertheimer studies that indicate that persons will "add" movement to a sequence of input, despite agreement that analyzing the situation by use of our day-to-day constructions of movement would not allow us to conclude that movement had "happened."

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Let's focus for a moment on important question: "At which point in 'real time' did the person add the movements to his construction of the sequence?" No change in the measurable physical world, so far as we know, can account for a person experiencing movement.

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The phi-phenomenon has been discussed interminably, with all kinds of interpretations being offered as explanation of why persons report seeing a light moving across the space between two fixed point of light. As Muller notes in Paragraph 26, scholars who adhere diligently to the to one of dualisms we have inherited from Greek philosophy – the appearance/reality dualism – have attempted to move to physiology to explain the "illusion" of moving lights and figures. Somehow, one can assume, a

sequential activation of a "brain field" or of "brain fields" account for the experience of movement.

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Rather than rush to an attempt to invoke reductionistic physiological explanation (which, at this stage of the game, we cannot embed in some kind of verifying operations), a bit of further contemplation can be useful. When was the movement "added" to the measurable stimulus pattern? When we consider the situation carefully, we must agree that the movement was added after the second set of energy patterns arrived at the sensory system. If, for example, the second light pattern did not appear, the observer does not see the first pattern travel half-way across the intervening space and then stop!!

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A person using a nonessentialist, pragmatistic world view would further ask, "For what purpose did the observer invoke his/her movement construction – his/her belief that the object associated with the light pattern had moved?" A plausible answer to this question would be, "To explain how the light pattern arrived at its second position." When the interval between the off-on conditions is very short (less than 250 milliseconds) the observer does not have enough time to process the two separate light patterns as separate events. The sequence is processed as one event, and to "make sense" of the single event, the objects emitting the light "must" move.

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In sum, one may interpret this "illusion" and other illusions in the same way. Persons impose on to stimulus patterns those personally created constructions which have, in the past, led to successful action. By careful alteration of measurable distances and sizes, a person can be led to construe elements of the ecology as being near, whereas physical measurements would lead to perceiving those elements as as far (Ames, 1951). The familiar "moon illusion" shows that under one condition (the moon on the horizon) a person experiences the moon as huge, whereas in another condition (the moon at the zenith) the moon is experienced as smaller. Yet, the area on the retina affected by the light pattern associated with the moon measures identically in both situations.

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To a constructivist, at this stage of our knowledge development, the task is to explain which of the person's epistemic collages are put into play as a person attempts to build self-guiding anticipatory narratives when he/she confronts the "illusion-creating" stimulus pattern (see Mancuso, 2000, for an explanation of the use of the term collage as a metaphoric replacement for metaphors such as construction, image, schemata, concept, etc.).

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More importantly, a contextualist/constructivist would be willing to generalize extensively from the conclusions drawn from the study of illusions and would concur heartily with Rorty (1999): "Others like Dewey (and, I have

argued, Davidson) have suggested that there is little to be said about truth, and that philosophers should explicitly and self-consciously confine themselves to justification, to what Dewey called 'warranted assertibility'" (p. 33).

Psychologically, one can say little about a difference between the belief invoked by the conditions in which the "illusory belief" had been invoked and a belief invoked under other circumstances. There is little that one can say about the "truth" of either belief. But one can say much about why the observer invoked a belief that he/she deemed to have "warranted assertibility." At this time, one cannot separate the construct system with which a person builds his/her anticipatory constructions from whatever is out there in order to "verify" a match between his/her constructions and a mind independent "reality."

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Having come to these positions, one would offer warrant to the general thrust of the theoretical base of Muller's essay, Concept dynamics and the mind-brain problem.

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The essay proves particularly useful at the points (Paragraphs 19-23, 28-32) at which Muller offers a cogent perspective on the ease with which persons move from a single experience of applying a verbally signified epistemic collage to acting as if he/she works with a transcendent, security-providing concept of fixed entities. The transcendent epistemic collage then "feels real," and the person cannot analyze out the point of origin of the

"transcendent word-concept-reality" (Paragraph 30). One can easily agree that this view can gain "warranted verifiability." And, this view can go some distance toward developing explanations of why people in power can so readily convince a non-analytic population of the "reality" of pronouncements offered by the "thought leaders" who have been elevated to positions of prestige by those having a vested interest in controlling "reality" (See Mancuso, 1997).

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Unhappily, I must point out places where I believe that Muller wobbles astray of his own mainline of thought.

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In Paragraph 9 Muller has written: "All structures which are, and must be, used in experience, and which determine (define or structure) it, are made or invented by us within experience. The elaboration of given experience happens with the help of self produced structures: this is creation of structures, and not interpretation (or re-presentation') of an already pre-structured world" (italics Muller's). I provided a discussion of several studies, at the beginning of this commentary, to gain "warranted verifiability" of the part of the italicized material that precedes the colon. I can see no means by which I can request warrant for the second part of the italicized material. Though I might agree about the utility of that second section, I see no need to include that assertion. It simply does not matter. I need only say that the first part of the italicized material is the best we can now do, and I can

try to offer demonstrations as I ask colleagues to warrant that claim.

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In Paragraph 16, Muller makes a statement which nicely demonstrates the transcendence of a metaphorically developed epistemic collage into security-providing collage. Muller wrote, "Objective (scientific and other) concepts, as well as pre-conceptual structures, are always stepwise elaborated (and stored for re-use)" this statement suggests that Muller uses the metaphor of a file storing "whole concepts" to construe something that we might better discuss as memory processes. In modern psychology the matter of developing epistemic collages by which to discuss memory processes (note: memory processes instead of a memory) consumes as much energy as any other issue. There are psychologists, I for one, who would not agree that we "store concepts" for re-use (Mancuso, 1996). One's view on this matter is crucial to building a general theory of human conduct. For example, how would one explain a person's very rapid and effective development of a self-guiding narrative that will be used in very novel situations. I would propose that the ability shown by persons to invent self-guiding narratives in novel situations requires a theory which speaks of something other than storage of epistemic collages. Briefly, I would advocate a theory based on "storage" of attributes (dimensions, two-poled constructs) from which people build, on the spot, the epistemic collages which will be used in constructing self guiding narratives.

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Overall, Muller's essay presents a convincing argument for redirecting our efforts away from attempting to relate brain to experience, for the present. Instead, we need to convince all of our colleagues that we first need to gain warranted verifiability for epistemic collages that are signified by terms such as experience, brain function, and so forth. Perhaps, most of our colleagues can be convinced that we can achieve even more by dropping assumptions about mind independent "reality" as we attempt to develop those epistemic collages.

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