

Constructing a Novel Blend Through Gesture

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Creativity is widely viewed as involving the combination of mental representations. Koestler (1964) claims that creative insights derive from the ‘bisociation’ of conceptual ‘matrices’. Fauconnier and Turner (1998, 2002) present a detailed account of ‘conceptual blending,’ a cognitive mechanism for combining content in distinct mental spaces to yield blended spaces with emergent structure. Among their examples is the Complex Numbers blend, which combines real numbers with two-dimensional space such that every number has a real part, an imaginary part, an angle, and a magnitude, making it possible to manipulate numbers geometrically. Recently, Thagard and Stewart (2011) have proposed ‘convolution’ as a neural mechanism through which two patterns of neural activity can be combined to produce a third pattern that is not the sum of the inputs. These advances bring us closer to understanding how the human mind can create what is, in the words of Boden (2004), ‘new, surprising, and valuable’.

Though many conceptual blends are clearly novel, we have as yet an incomplete picture of how novel blends emerge in human activity. To explore this topic, I compare two episodes of instruction in clock-reading that both involve the construction of blends. In the first, the speaker builds a conventional blend for telling time, while in the second, he builds a novel blend for telling time using a geometric input not normally associated with clock-reading. In both cases, he establishes cross-space mappings through a series of gestures coordinated with and construed by speech (as in Williams 2008), producing anchored blends that can be ‘run’ by manipulating the clock hands into configurations for particular times. The novel blend is new and surprising, but it is not especially valuable as a way to read time and so is quickly forgotten. These examples demonstrate a continuity between conventional and novel blends, showing how both arise through common conceptual mechanisms and are developed through gestural enactments that “make material patterns into representations” (Hutchins 2010: 434). The implication is that creativity is inherent in everyday cognition but noticed only when it produces blends that exhibit Boden’s three properties. The examples also question the exclusive focus on mental representations in theorizing about creativity, suggesting instead that embodied interaction with the material world—active perception, action, and enaction—plays a fundamental role in the emergence and propagation of novel insights.

References

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