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From Doubt to Functionality: An Imagery Story

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From Doubt to Functionality: An Imagery Story

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ABSTRACT

Mental imagery and mental simulations play an important role in any consumption experience. For decades, however, the famed “imagery debate” dominated discussions on imagery and to some extent stymied research on how imagery impacts consumption. As researchers debated whether a picture-like component was part of the underlying mental representation or not, a researcher’s inability to produce concrete evidence that people had indeed formed mental images was often used to challenge imagery-based explanations. Despite this, the last decade has witnessed burgeoning research on how consumers use imagery in a myriad of ways — often in the service of some larger goal. The monograph views imagery through this functional lens and reviews and organizes these findings.

This review provides a historical perspective on imagery research and then uses evidence from past research to lay down a conceptual foundation for new work that will undoubtedly emerge in the coming decades. Questions such as “What triggers imagery?” “Are there differences between perception and imagery?” “How do we use imagery to create simulations and imagine what we do not see?” “How does imagery exert an influence?” and “Are there individual and

cultural differences in the ability to image?” are addressed. Then, to unify the somewhat diverse findings from imagery research conducted on consumers, the monograph organizes the research using two dimensions: The extent to which imagery is spontaneous or deliberate and whether it has cognitive or motivational antecedents. This framework is used to not only discuss the existing research but also to pose questions that remain to be answered.

1

What is Imagery? Definitions and Clarification of Key Terms

*For oft, when on my couch I lie/In vacant or in pensive
mood, They flash upon that inward eye/Which is the bliss of
solitude; And then my heart with pleasure fills/And dances
with the daffodils.*

— William Wordsworth, “I wandered lonely as a cloud”

Philosophers have often wondered about the inward eye that Wordsworth notes in his poem, and its ability to generate images from past input. Debates about it have existed since the time of Aristotle who described its working in terms of *phantasia* (the ability to generate an image) and *phantasma* (the image). Believing that these images were an essential part of human thought, he wrote, “The soul never thinks without a phantasma” (Aristotle, 1984, 431a). In Aristotle’s view, all concepts originated from the experience of perceiving sensations and that this imprint of the sensation on the mind (the phantasma) was very much like the impression of something on molten wax. Thus, in his view, *phantasma* was akin to perception and considered central to human thought. *Phantasia*, on the other hand, referred to the human ability to perceive or see something. In early discussions, the mere act of

perceiving was often conflated with imagery. The idea that this imprint or image could be retrieved without the physical presence of the object, and the interpretation that imagery involved generating something that was picture-like in the absence of the stimulus, emerged much later.

Mental imagery, as it is defined today, is the ability to form an image of something in one's mind even though that object is not physically present. Colloquial expressions referring to imagery often include references to "picturing" or "visualizing". As Wordsworth notes, an image of what he has seen in the past flashes upon that "inward eye". These colloquial expressions invariably refer to visual mental imagery and neglect other types of mental imagery experiences that might exist. Most cognitive psychologists acknowledge the existence of other forms of mental imagery such as auditory (Reisberg, 1992), olfactory (e.g., Bensafi *et al.*, 2003; Djordjevic *et al.*, 2004; Djordjevic *et al.*, 2005), haptic (Klatzky *et al.*, 1991; Yoo *et al.*, 2003) and kinaesthetic mental imagery (Jeannerod, 1994). Yet, a bulk of the research that has been conducted still falls into the visual mental imagery domain. Further, some researchers have argued for the existence of a picture-like representation (e.g., Kosslyn, 1975). It is precisely this claim of the existence of a "mental picture" like representation that has led to animated debates about the very existence of imagery.

Although philosophers and scientists had long acknowledged humans' ability to generate images, the ability to imagine something and the existence of a picture-like representation in memory to store information were often discussed together and the denial of one was typically accompanied by the denial of the other. Given that the word "image" is suggestive of a picture, early theories often implied the existence of a representations or brain states that contained pictures (Kosslyn, 1975; Kosslyn, 1980). This led to extensive critiques that were focused on the utility of these forms of representations, whether the same knowledge could be represented in other ways (e.g., Pylyshyn, 1973; Pylyshyn, 1978; Pylyshyn, 2002; Pylyshyn, 2003), rebuttals as well as counter rebuttals (e.g., Hannay, 1971; Kosslyn, 1980; Kosslyn, 1983; Kosslyn, 1994; von Eckardt, 1988; von Eckardt, 1993; Tye, 1988; Tye, 1991; Cohen, 1996). What was, however, lost in the process was the distinction between the process of imagining (a phenomenon that is very familiar to most

humans and a part of their everyday experience) and the nature of the representational system that allowed one to generate this experience.

What appears to have emerged is the view that mental representations (image-like or otherwise) can elicit quasi-perceptual experiences that are conscious (Thomas, 2003). That is, one can have a quasi-perceptual picture-like experience without necessarily assuming that such a picture-like representation is actually stored in memory. Thus, one can generate an image of a “purple cow” without having seen one. Such quasi-perceptual experiences lack the details of pictures. Further, they might be put together using previous perceptual traces (e.g., the color purple and a cow might be used to generate the new image). This ability to generate an quasi-perceptual experience on the basis of previous percepts serves as the working definition of imagery and will be discussed in detail later in the context of historical perspectives of imagery.

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