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**Enacting Images**  
**Representation Revisited**

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## **Preface**

This volume is devoted to images, as they mobilize cognition and theory; or more precisely, since images activate our cognitive and motor skills in a specific way, it is time to create a conceptual framework within which images can attain their place in the theoretical reconstruction of human cognition. Though we can speak of a pictorial turn (after the so-called linguistic turn) now that images have become a distinct and full-fledged topic of investigation, some may continue to cling to the impression that images should still be considered within a fundamentally representationalist framework.

Representationalism entered the scene of philosophical debate quite explicitly with the Cartesian dualism of the extended body and the immaterial mind. Just as it was for Descartes, it is to this day a great challenge for the proponents of the Cartesian heritage to relate mental and physical phenomenon. The enactive approach seems to be a promising candidate for overcoming representationalism, as it suggests motor skills and interplay with the environment play a crucial role in (visual) perception.

Images are increasingly ubiquitous in our lives as compared with the lives of our ancestors. To mention just a few examples: we see images in the street and on our screens as advertisements, we employ icons as supporting signs of orientation, we use images extensively in scientific discourse and medical practice, in the course of teaching, learning, and we even admire them as works of art. In some of the abovementioned examples, images easily provide the desired information, while in other contexts they require expertise. But in all cases, images are considered representations of an idea, rule, experience, etc. The present volume emphasizes

this representative character of images both from the perspective of percipience and creation, on the one hand, and relates it to theoretical considerations, on the other hand.

Beyond public representations (as Casati and Giardino use the term in this volume), *i.e.* representations which are accessible to others and related to material, we will also consider mental images. Mental images are regarded as mediators between the physical/perceptual and the mental/cognizing spheres, according to the representational account. This idea hearkens back to Cartesian body-mind dualism and was explicated, although in a rather ambiguous way, by Descartes himself when he examined visual perception.

In a dualist framework, we do not have a satisfying answer to the question of how it is possible to make a physical percept accessible for mental processing, but the enactivist approach seems to pave the way for an answer beyond the horizon of representationalism. Enactivism also has far-reaching roots in the history of philosophy, (though some of these roots are rarely acknowledged), it closely relates to cognitive psychology, and interestingly, combines in a promising way some suggestions from continental philosophy with the conceptual framework of the philosophy of mind. In 1991, F. J. Valera, E. Thompson, and E. Rosch »[proposed] as a name the term *enactive* to emphasize the growing conviction that cognition is not the representation of a pregiven world by a pregiven mind but is rather the enactment of a world and a mind on the basis of a history of a variety of actions that a being in the world performs«. (Valera et. al. 1993: 9) Accordingly, perception is conceived as an active engagement as contrasted with a passive acceptance of external stimuli for further cognitive processing that results in an internal

representation. As enactivism heavily relies on a motor component, the separation of the physical and the mental enters in a new light.

Taking into account mental representations within the framework of the so-called imagery debate from the 70s<sup>1</sup>, we face an additional difficulty. Both contending parties fall into the trap of a misconception, *viz.* they suppose we face the same kind of entities in the sensible world and in consciousness. Descriptivism asserts that mental representations have a propositional structure, while pictorialism (the opposite pole) suggests mental representations are depictive. If we conceive mental representations either as being symbol manipulation in accordance with certain rules, or pictorial items in consciousness, the floor is open for a fallacy, namely believing that mental representations can be considered as either propositional or pictorial. But in the case of propositions and pictorial representations, we encounter audible or visible representations (public representations). What can provide the ground for the presupposition that mental representations are in accordance with a type of public representation? The transference of the expressive means from the perceptible physical world to consciousness is, of course, based on analogy, and although it is useful in theorizing (Kant), it can be misleading (Wittgenstein), as well.

Remaining within the framework of the relation between mental (be it either propositional or pictorial) and public representations, we face further puzzling questions: How can we differentiate between mental representation and its manifestation? How can we have access to another's mental state without its expression? How can we relate mental state to its expression at all? In the history of

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1 The contending parties considered mental representations, or the ›roots‹ of cognition, to be either pictorial or propositional. There was a depictive/pictorialist camp (S. Kosslyn) that suggested that the ›roots‹ of cognition are depictive, while the propositional/descriptivist camp (Z. Pylyshyn) maintained that cognitive processes are in accordance with propositional structures. The dual coding approach (A. Paivio), as a third option, suggests that both images and verbal representations play a role in cognitive processes.

philosophy, these questions have bobbed up many times in various forms; and by the end of the 19th century, the founders and proponents of different schools tended to suggest an unbreakable bond between mental states and their expression, and accordingly, mental representations and their manifest forms.

The enactive approach suggests a framework within which questions that would lead to antinomies in a dualist frame of reference seem to find a way to an answer, at least in certain cases. The epistemology of conscious experience has both psychological and philosophical roots, and in the framework of embedded and embodied cognition, the enactive approach has recently shown the potential to provide a solution to the dualist paradox of perception. That is, the enactive approach facilitates developing a theory that is able to explain the mediation between the mental and the physical with the introduction of motor skills. This promising theoretical background provides the ground for extending the focus of the research of images towards the enactive approach.

Enactivism underscores the importance of motor engagement in case of visual perception, therefore suggesting a new conception of sight. The idea of enactment is inseparable from the notion of embodied and embedded cognition. That is, cognition, action, and the environment are inseparable. In this conceptual setup, images gain a special accent, *viz.* their role in cognitive processes can be investigated as a result of some kind of material engagement. Since both perception and depiction require motor skills (although not exactly the same ones), mental and public representations gain a common ground; therefore, the abovementioned misconception can be avoided.

From a cognitive evolutionary point of view, the role of pictorial representation, specifically cave drawings, »was to provide a scaffolding device that enabled human



perception gradually to become aware of itself. ... the image offers a new mode of epistemic access to the world of visual experience«. (Malafouris 2007: 299) On the one hand, it made visible the fact of representation, and on the other hand it revealed the basic structure of the depicted living creature. That is, images as public representations provided ground for reflective thinking and, significantly, as a kind of external representation, highlighted the importance of the technique as well as the cognitive and motor skills of depiction.

Though the enactive approach is a relatively young perspective in philosophy, it already faces counter-arguments and its theses are challenged by the proponents of more radical demands. While the first discourse in this volume is devoted to embedding the enactive approach into the historical framework of pictorial vs. computational theories of perception, it also illuminates the role of representation (with an emphasis on mental representation). The comparison of conservative and radical enactivism corroborates the conclusion that representations are an end-product of perception and that both mental and public representations facilitate further perceptions.

The second chapter's main endeavour is to challenge the notion of embodied cognition (an important theoretical prerequisite of enactivism) on the basis of the internalist account of the Cartesian mind. The treatise's criticism of embodiment is focused on Husserlian phenomenology and touches upon important questions such as the manageability of first-person perspective, the role of illusions/hallucinations (a challenging topic for the theorists of perception) in description (representation) and action, and nicely presents the difference between the cases where we focus on the relation between (or correctness of) mental representation and its subject, and those

where we focus on the relation between the cognizing/acting agent and her environment.

In the third chapter, images as external representations play a major role. Theories of perception and depiction will emerge in a historical context. Beyond the evocation of earlier criticisms of representationalism, this chapter will suggest that within the framework of enactivism, we can see depiction and perception in a reciprocal facilitating relationship.

Similarly, the fourth chapter will emphasize the promoting effect of drawings in mathematical problem solving and at the same time will draw our attention to the paradoxical situation whereby pictorial representation expresses highly abstract notions and relations. That is, when we use pictorial representations of concepts, in some cases we unavoidably violate its definition or a member of its conceptual framework.

The closing chapter provides a conceptual framework within which pictorial public representations are subtly differentiable. As the closing piece demonstrates, the enactive notion of vision provides a web of decisive concepts/aspects, which facilitate the creation of an elaborate categorization of pictorial representations.

The idea of incorporating the enactive approach into image research reaches back to the regular meetings of the scientific network for »Bildphilosophie«. In 2009 it led to a workshop held in Budapest, which resulted in this volume. We are very grateful to the German Research Foundation which has provided support for the preparation and completion of this collection of papers.

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