

Empathic response in office space. The notion of embodied simulation in corporate interiors

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I. ABSTRACT

The subject of the presentation is the relationship between office space and its users. The empathic response to architectural settings will be addressed within the frame of the neuroscientific notion of embodied simulation and its implications for office design.

The presentation is theoretical and incorporates research from architecture and cognitive neuroscience. The field of research is limited to office environments for two basic reasons: first, the number of physical variables is limited, especially with regard to the interior scenery; second, its performative nature entails description and measurement.

The presentation frames the notion of embodied simulation within office interiors, and concludes that interiors and their users inseparably tied, as embodied simulation defines users' basic relationship with space. Neuroscientific evidence is introduced, according to which the experience of architecture is based on a complex relationship between the body, its sensorimotor system, and architectural space.

The experience of office interiors is addressed discussing properties of the visual vs. the sensorimotor mechanisms at play during embodied simulation. It is concluded that the space around the body within our workplace is defined by the motor potentialities and confinements of our body – meaning also that perception requires action simulation – and that it is perceptually measured not only visually but through a more complex model which involves the potential actions of the worker occurring within it. These simulated potential actions thus define a motor space, since it is mapped in terms of action potentialities.

Such a perspective in cognitive neuroscience describes a new model – opposite to the computational view positing perception, cognition and action as separate domains – according to which the same motor circuits that control the motor behavior of individuals sitting at their desk also map the space around them, and the objects at hand in that very same space with their shape, size, orientation and distance from the perceiver, thus defining and shaping in motor terms their representational content.

Further implications within the users' experience of office space are discussed.

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