

# *English Summary*

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## Conceptual Blends in Interaction Design

### – Toward a Cognitive Semiotic Framework for Online Meaning Construction and Embodied Interaction.

In his ph.d.-thesis Thomas Markussen aims to shed new light on those cognitive processes that are responsible for people's experience of and interaction with novel design artefacts. One recurrent object of investigation is those situations, where interactive artefacts confront users with entirely new functions or unfamiliar embodied experiences, which require a semantic restructuring of the meaning structures that users' expectations are generally believed to be made out of (e.g. mental models, concepts, and categories). A key claim in the thesis is that Gilles Fauconnier and Mark Turner's theory of Conceptual Integration, also known as Blending Theory, is particularly apt to capture such instances of online meaning construction. This claim is substantiated by a series of design analyses of wearable interfaces, mixed reality environments and robotic devices.

One of the basic assumptions of Blending Theory is that signification and meaning construction are rooted in structures and functions of situated cognition, which evades a strict sign-theoretical approach to meaning. By basing its core hypotheses on this assumption, this thesis differs from other branches of design semiotics that have traditionally taken the sign as being the central conceptual unit for theorizing meaning in design. Inasmuch as it sees meaning construction as being based on cognitive structures and processes, this thesis makes a plea for a "cognitive semiotics".

Apart from a detailed introduction to Blending Theory, the thesis contains six case studies, all of which have been published internationally in conference proceedings, anthologies and journals.