

# Examining Practical, Everyday Theory Use in Design Research

**Abstract** This paper discusses how theories (as objects) are used in articles published in Design Studies. While theory and theory construction have been given time and attention in the literature, less is known about how researchers put theories to work in their written texts – about “practical, everyday” theory use. In the present paper, we examine 32 articles and synthesize six models of “theory use” based on our examination.

## Keywords

Design research  
Design theory  
Research methodology

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## Emails

Jordan Beck  
(corresponding author)  
[joebeck@indiana.edu](mailto:joebeck@indiana.edu)

Erik Stolterman  
[estolter@indiana.edu](mailto:estolter@indiana.edu)

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4 John Ziman, *Real Science: What It Is, and What It Means* (Cambridge, UK: Cambridge University Press, 2002), 128.

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Theory is integral to any academic discipline. It takes researchers beyond observation and interpretation into the realm of sharable knowledge. Theory provides us with the means to structure knowledge, to evaluate and assess it, to construct it, and to share it. In the everyday practice of research, theory can be seen as a concrete tool used for practical purposes. For instance, theory can be used as an explanatory tool, or as a predictive one. But these are not the only ways in which theory functions as a tool. The use of theory is multifaceted and complex.<sup>1</sup> However, in this article our aim is not to demarcate or define theory. Instead, our aim is to investigate how researchers present their use of theory in written texts.

The reason for our investigation originates in a parallel study<sup>2</sup> which engages with the question of what constitutes a design theory. We have examined publications from many different domains of design research, and we have found that the way theory is mentioned, written about, and used can be difficult to understand. This difficulty pointed us towards the important two-part question of (1) how researchers in the design field use theory, and (2) how that use manifests in their writings.

Our interest is primarily in the everyday practice of theory use. By "everyday practice," we mean to distinguish between what we might call "revolutionary contributions" to the field and contributions that might be considered normal or routine. In order to accomplish this, we have examined a selection of articles from a single calendar year in one of the most prestigious journals in the design research community – *Design Studies*.

We propose six models that capture the different ways researchers use theory in their publications. We suggest that these models support a deeper understanding of the structure of publications in *Design Studies*. In addition, and perhaps more importantly, these models facilitate interesting and useful questions about the state of theory use in design research in general, such as: why is theory used more in some ways than others? How do authors employ theory in different ways in the same texts? To what extent does current theory use in design research tell us something about *design theory*, as opposed to other kinds of theory? What is the current state of theory use in design research?

We intend this paper to make two primary contributions to the field: First it describes the current state of theory use in design research; and second, it explores the implications of this existing state when it comes to design research in general. A deeper understanding of how theory is used in the design research community can potentially better position its constituents to be more intentional in their theory use.

## Theory as an Object

Theory can be understood in many different ways. For instance, it has been described as a model,<sup>3</sup> likened to a map,<sup>4</sup> and defined as a way of looking at some phenomena "with explanatory or predictive implications."<sup>5</sup> A simple distinction that we have found useful for our purposes is that theory can be understood either as an object (i.e., as a kind of knowledge entity) or as a process (i.e., as theorizing).

When a researcher develops an explanation of how or why some phenomenon occurs, they are engaging in theorizing – in a *process*. The explanation itself becomes a theoretical *object*. For instance, the FBS framework,<sup>6</sup> CK theory,<sup>7</sup> distributed cognition,<sup>8</sup> and strong concepts,<sup>9</sup> could all be interpreted as theoretical objects. A parallel distinction can be made between designing and a design: when a designer designs, they are engaged in design as a *process*, while the outcome of that process becomes the design(ed) object.

Both aspects are of course of great importance. So when we consider our research question, "How is theory used in written texts in design research," we have

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