

# Don't Be Addicted: The Oft-Overlooked Dangers of Simplification

**Abstract** We are seldom taught that simplification has a high risk of failure. In truth, it only works up to a point, after which all that lies ahead is failure. To examine the limits of simplicity is to look at what happens when our efforts to make things fit into a sound bite, label, or keyword go awry. When simplification works, it can indeed be very effective. But simplification does not always work – so more is not necessarily better. And when simplification fails, it fails miserably. This article exposes the limitations of simplification as a design choice, explores the cognitive origins of why we often get led astray in making such a design choice, and explores how we might develop a set of practical heuristics to counter the seductiveness of simplicity itself. The goal is appropriateness and balance – what cybernetics calls requisite variety, and what many design practitioners call placing context in context. The article concludes with a heuristic to guide the practitioner on what to do when their efforts at simplification are failing.

## Keywords

Simplicity  
Context  
Model  
Description  
Representation  
Reality

Received April 28, 2016

Accepted May 27, 2016

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The peer review process is the responsibility of Tongji University and Tongji University Press.

<http://www.journals.elsevier.com/she-ji-the-journal-of-design-economics-and-innovation>

<http://dx.doi.org/10.1016/j.sheji.2016.05.001>



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## Introduction—the Error of Simplicity

Ambiguity is ever-present in our world, but all too often we choose to ignore it. We assert the simple in lieu of the complex; the direct in lieu of the nuanced or the subtle; the label or category in lieu of recognizing the portfolio of choices that label/category represents. This article will argue that *how* we choose to deal with ambiguity is itself a design choice. Often, the response to ambiguity is to simplify. Yet many times simplification is *inappropriate* – it leads to outcomes that are poorly suited to the situation at hand. It is a pattern we cannot seem to break. Yet we do not go through life overwhelmed by the apparent complexity continually confronting them – instead, we make choices about what to handle, what to perceive, and which questions to ask. We often choose to assert the simple over the complex. We then act based on the simplifications we have chosen, regardless of their *appropriateness*.

"Finally, we are learning that simplicity equals sanity."<sup>1</sup>

"Much of our human mental life looks to involve a seamless unfolding of perception, action and experience: a golden braid in which each element twines intimately with the rest."<sup>2</sup>

"In our endeavor to understand reality we are somewhat like a man trying to understand the mechanism of a closed watch.... He will never be able to compare his picture with the real mechanism and he cannot even imagine the possibility or the meaning of such a comparison."<sup>3</sup>

"The business of a philosopher is primarily to make clear what is happening in thinking."<sup>4</sup>

Thinking frames are designs. We create them for a purpose, and they can be evaluated accordingly. An emphasis on simplification is a rather poor design choice, as it blocks rather than encourages dialogue and learning. Chimamanda Ngozi Adichie's presentation "The Danger of Single Story" has become one of the 20 most viewed TED talks since the platform's inception.<sup>5</sup> In it, she warns of the dangers of over-simplification – by focusing on simplifying, we are forced to use blinders, and that which we do not see may be that which is most important.

When we perceive the world as coherent – as holding together and making sense – we have the ability to assume our situation, and get on with things. The nuanced complexity of the world in which we operate can threaten that notion of coherence. When our perception of coherence is shattered, we continually have to ask questions, and we worry about our inability to find answers we can believe in. We react to that loss of assurance with a loss of self-confidence – we revert back to whatever coherence we can find. At that moment, our first instinct is to simplify.

We make sense of the world through explanation. Retrospective explanation is used as the basis for prediction, and upon such prediction we act. But "we are ruined by our own biases. When making decisions, we see what we want, ignore probabilities, and minimize risks that uproot our hopes."<sup>6</sup> Our minds dislike ambiguity and doubt. Instead, we have an ingrained desire to construct coherent narratives, which leads us to seek confirming evidence, while disregarding information that refutes our prior view – an inclination known as *confirmation bias*. What results is a confidence in our understanding which may be greater than the circumstances warrant, and a further confidence in the simplifications we have chosen – on which we then base our actions. That excess confidence is a problem. It can block our solving a problem – or even our perceiving one – and it can block our access to the

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