3.3 The Idea that Reality is Socially Constructed
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"Die Philosophen haben die Welt nur verschieden interpretiert; es kommt darauf an, sie zu verändern."

3.3.1 Introduction

Constructivism, the idea that reality is socially constructed, has recently invaded the field of software development. Producing software, designing computer applications, installing systems, reorganizing work patterns, are all constructive activities which, more or less directly, contribute to changing the world we live and work in. A clear understanding of the idea of reality construction is then a way to understand what one is really doing as a software developer. Such an understanding should be easy to obtain in view of the current popularity of the idea. It is not. The main reason for this is that most proponents of constructivism today brandish it as a weapon in a humanistic campaign against technology. Doing this they not only fail to see the truly technological nature of the idea of reality construction and the vital roles played by technology in all constructions of reality, but they also manage to alienate many of the practitioners whose practice they want to enlighten.

To claim that reality is socially constructed is to claim not only that reality is constructed, as opposed to "given" or "simply there", but also that this construction is social as opposed to, say, natural, private, or technical. In the recent vogue of social studies of science, constructivism is thus used to combat the hegemony of the natural sciences by showing that a social understanding of concept formation and knowledge acquisition is fundamental to our understanding of reality. Similarly, the current interest in social studies of technology aim at showing that changes of reality initiated by engineering become real only to the extent that they are socially realized.

In a world becoming ever more filled with technical artifacts, the idea that we construct our reality is not that outlandish. But when constructivists argue that reality is socially constructed they are not thinking of the construction of buildings, bridges and highways using concrete and steel. They are thinking of mental rather than material construction, of interpretation rather than material change.

The importance of interpretation, of the meaning we give our world, is underrated in a technological age stressing material goods and values. But acknowledging the importance of mental constructions should not make us forget the
reality of material construction. As I try to spell out the complexity of the idea that reality is socially constructed, by sketching its history, by looking closer at some of its major advocates, and by drawing out its implications for software development, my major task will be to warn against such forgetfulness.

I will take you on a tour through the idea of reality construction by travelling back and forth between the two intellectual strands in the process of modernization: the Enlightenment and Romanticism. The major part of our tour will be spent in the land of Romanticism, accepting without argument the kind of irrealism propounded by constructivists like Nelson Goodman, Richard Rorty and Jacques Derrida. But throughout I will try to give the Enlightenment its due by pointing out the important roles of technology in the processes of reality construction: in material constructions, as a basis for thought experiments, as provider of intellectual tools, and as a source for constructivist ideas in general.

In the first two sections the distinction between material and mental construction is introduced and discussed, first, in terms of a distinction between engineering and construction, between industrial production and craft. Secondly, the background of this distinction is traced in the opposition in our culture between the ideas and ideals of the Enlightenment and Romanticism. In the next two sections I then try to show how closely related these two forms of construction really are. Section 3.3.3 tries to show that material construction is always mental by discussing the dependence of facts on theories, of objects on ideas. In Section 3.3.4 the task is the complementary one of showing how thinking relies on material artifacts.

In Section 3.3.5 our understanding of constructivism is deepened by a close reading of some recent philosophical contributions. Section 3.3.6 aims to make clear that a socially constructed reality has all the properties we are accustomed to attribute to reality. In Section 3.3.7 I argue that the constructivist idea really is the idea of technology, and I discuss how science is now changing as it begins to appreciate this idea. Section 3.3.8 finally tries to pull all the threads together in a recommendation for all of us, who would like to see a computerization on human terms, not to be content with trying out different interpretations of computer technology.

Before we begin I would like to stress the importance of processes of construction in nature, of “natural reality construction”, to counter the Romantic tendency to make of construction a human privilege. The idea of human world-making makes good sense when it comes to theorizing about society. And everything we care for is (automatically) socialized. But the fact that social reality is constituted by the institutionalized conceptions of its members does not mean that social theorizing can forget about material conditions, be they technological, biological or physical. And when it comes to nature, the idea that it is our conception that counts is, to my mind, an example of ridiculous hubris. We are nothing but tiny flecks in the surface of the grand and forbidding construction of nature. Our constructions of nature weigh lightly in comparison with nature’s constructions of us.