point emphasized by the philosopher Donald Davidson.[13] According to Davidson, the physical description of the world, including the world of man, sees it as made up of events, linked by causal relations. With respect to human life, these events are the movements of hand and feet, the contractions of muscles in the chest, the throat and the tongue, and the face. This is the dynamic extension of the static description in terms of material objects. Mirroring the fact that some of these objects play a role in human actions, some of these events are actions, meaning that another description is available for them, not in the language of cause and effect and natural laws, but in that of the intentional idiom. In this idiom they are described as intentional acts, originating in certain desires and in certain beliefs about the possible satisfaction of these desires. The pouting of the lips is the kissing of a friend, the intricate turning movements of arms and hands holding fast to various objects is the making of a cake, the intent staring at tiny black spots on a surface is the reading of a book. Crucial in Davidson's account is that never does only one intentional description fit the physical event. The kissing of the friend is also the congratulating her on her marriage; the making of the cake is also the killing of the husband with one of the ingredients, the reading of the book is also the preparation for next weeks exam. An act need not be intentional under all of the descriptions that apply to it. In fact it hardly ever is. The wife need not have intended to kill her husband; she only meant to make him ill for a time, or she did not know that poison was mixed in with one of the ingredients, or there was no poison but she did not know that her husband was extremely allergic to one of the more common ingredients.

Analogous to what was said above for the case of artifacts and objects used for a purpose, action descriptions are underdetermined by the physical description of the underlying event, and many different events can realize the same action. Striking forcefully at a log with a sharp object fastened to the end of a stick can be the action of chopping wood for the fireplace, or the action of venting anger, or the action of posing for a photo to be used in commercial advertising. Similarly, one can vent one's anger by striking away with one's axe, or by smashing plates against the wall, or by attacking the object of one's anger. Of course, action descriptions and physical descriptions of events mutually constrain each other, just as the physical properties of objects and the uses they can be put to mutually constrain each other. Having one's eyes fixed at a bundle of white sheets with black ink marks on them for an hour can be the action of reading a book, or of preparing for an exam; it cannot be the action of eating a sandwich.[14]

Davidson's account of actions can help us to understand why a designer cannot be seen as the 'owner' of the artifact designed by her, in the sense of being the one to determine what the artifact essentially *is*. The designing of an artifact is an

[13] Davidson (1980), especially essays 8–10.

[14] An analysis of these constraints is, of course, an important topic of research for the philosophy of action and for the philosophy and methodology of engineering. It is not, however, a subject that belongs in the present contribution, which focuses on conceptual and metaphysical issues, nor could I even remotely do justice to it in this limited space.

intentional action. A purely physical description of this event lists the movement of fingers, hands, feet, and, most of all, the firing of brain cells, and additionally the appearance of light patterns on computer screens, of patterns of zero-type voltage and one-type voltage in computer memories, and of ink marks on sheets of paper. This is the least interesting description of all. Another description, the one favored, presumably, by the designer herself, is that of the designing of a new game console: but if that game console is going to blow the mind of many a young fellow, then designing such a device is also something she did, at precisely that moment. If the console, after having been banned by most governments, finds wide application as an instrument of torture in the murky police stations of several Central-Asian countries, then designing an instrument of torture is also something the designer did, at that same moment. Of course, designing an instrument of torture is not something the designer did intentionally, but it is something she *did*, since her action was intentional under some description.

There are no general criteria that can designate one of these descriptions is being more accurate, or more 'true', than another. It is a matter of convenience, or convention, which one is singled out for the identification of the designed artifact. This extends to the way malfunctioning artifacts are described. Some authors, taking their point of departure in the system-function account of Cummins, hold that an object that does not have the physical capacity to show the behavior required for a particular purpose is *ipso facto* not a specimen of the functional kind associated with that purpose.[15] Suppose that another designer designs a new television and, due to a mistaken specification, in all manufactured products a specific components blow immediately after being connected to the socket. On the system-function account, these objects would not be television sets. However, to conclude that designing a television set was not what this designer did seems counterintuitive. Attempts at repair that let the designer be "under the impression that he is designing a television set" or "imagining himself to be designing a television set" seem contrived. Here as well, convenience and convention come in to play to say how much an object's physical properties and design history may deviate from an operational device for its classification as a particular functional kind to be justified.

Let me not be misunderstood, in thus setting limits to the role of the designing engineer in determining what an artifact is, in my view concerning the activity of technical design. What designers and engineers do is, technically, very different from what ordinary people do, even when tinkering. The amount of knowledge, the sources of this knowledge, the testing, redesigning, and retesting are all absent from everyday life. Metaphysically, however, technical artifacts and the act of designing them do not pose any challenges that have not already been with us, or at least with the philosophically inclined among us, since before the Stone Age.

[15] For biological functions, see, e.g., Wouters (2005) and Davies (2001). For technical functions, see, e.g., Thomasson (2003).