

## BIBLIOGRAFÍA

- Aliseda, A., 2006, *Abductive Reasoning. Logical Investigations into Discovery and Explanation*, Springer, Dordrecht.
- Rott, H., 1990, “Approximation Versus Idealization: The Kepler-Newton Case”, en J. Brzezinski, F. Coniglione, T. Kuipers, y L. Nowak (eds.), *Idealization II: Forms and Applications, Poznan Studies in the Philosophy of Science and the Humanities*, vol. 17, Rodopi, Amsterdam, pp. 101–124.

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Beth Preston, *A Philosophy of Material Culture. Action, Function, and Mind*, (Routledge Studies in contemporary philosophy, v. 48), New York, Routledge, 2013, 264pp.

The central purpose of Beth Preston in her book is to answer the following question: “What is involved in our *own* production and use of material culture?” (p. 2). With this aim in mind, the author goes a wide-ranging way through a variety of crucial topics in the philosophy of technology: What is the ontological status of technical objects? What is the relevance of the designers’ intentions in the attribution of functions to items in the process of technical making? What is exactly a “proper function” and how can it be identified?

In her previous work, Preston has discussed these issues, but this book represents a *systematic* approach from the viewpoint of the notion of “material culture.” According to this novel notion, “the focus is on things made and/or used, and secondarily on the making and/or using of them” (p. 7). This methodological choice allows her, on the one side, to leave behind those positions centered on the idea of *thing* or *object*, related to a modern subject/object division that is, in her view, incapable of apprehending the dynamism of culture, and, on the other side, to do without the notion of *artifact* and its related quandaries —issuing from the image of an isolated object and the secondary place assigned to practices and skills, among others things—.

The focus on “material culture”, however, does not entail mainly discussions in the fields of anthropology or archaeology, but primarily

on Action Theory and the philosophy of biology. Thus, chapters 1 to 4 approach contemporary action theory with the aim of clarifying the status of technical action through an analysis of creativity and improvisation, whereas the philosophy of biology is the starting point of a discussion (especially in chapter 5) of the question whether the notion of biological function (and its related concepts) can be coherently transferred to the sphere of material culture.

In chapter 1, Preston rightly criticizes the “Centralized Control Model” of technical production and its core assumption that the poietic stage is divided into two steps: a first phase of mental design —the form in the mind of the producer—, and a second phase of actual construction, consisting mainly in an unintelligent and automatic execution of the previous plan. A main assumption of this model is that the exclusive *locus* of the design phase is the mind of a single individual, who controls her actions completely through explicit plans and is not (and need not be) in collaborative interactions with other individuals.

Chapter 3 continues the critique of contemporary action theory, focusing on the distinction between individual and social action. Here, Preston analyses those views that aim to explain multiple agents’ intentions using notions such as “shared action,” “joint action,” or “collective action”. These perspectives assume wrongly that sociality —that is, social roles, norms, and institutions— can be explained by means of the “we-intentions” of small groups, which can be reduced to the agreements, commitments, and obligations of pre-existing individuals conceived in a non-social way.

Preston labels this view “suigenerism” and offers the alternative notion of “sociogenerism”, according to which the individual and the society are mutually constitutive. Social structures produce specific kinds of individuals, who at the same time reproduce the social structures through their practices. According to sociogenerism, a view that in fact has been put forward by prominent thinkers such as Aristotle, Hegel, and Marx, sociality precedes every kind of collective action because agents are already socialized individuals.

In chapter 4, Preston analyses songwriting as a way to explore creativity and novelty in material culture and stresses the constitutive role of material infrastructure in songwriting: amplifiers, computers’ software, and musical instruments, among other items of the musical technical environment, not only facilitate this activity but make it possible. The main issue in this chapter is creativity; all human action is creative because it must adapt itself to dynamic situations by means of a variety of cognitive, physical, and material resources.

Whereas the first part of the book approaches action theory in its contemporary versions, the second part focuses on the items produced and offers a functional view of material culture. Preston believes that material culture consists in items with functions, and proposes a pluralistic function theory (chapter 5) that avoids the stronger versions of intentionalism (chapters 6 and 7). As we aim to clarify below, her purpose of “de-emphasizing” intentionalism gives rise to some debatable issues.

First of all, we underline that the grounds of the second part of the book, put forward by Preston in chapter 5, are quite solid. Her starting points are certain notions of function firstly developed in the philosophy of biology, that were later transferred into the field of material culture. Preston dealt with these issues in previous papers, and is now able to develop a sophisticated and mature argumentation, which amounts to one of the best parts of her book.

She evaluates the virtues and flaws of two different theories of function, especially when these theories are used in the field of material culture. On the one side, there are views that consider only the proper functions. They can explain normativity, but they leave aside the variety of system functions. On the other side, there are theories focused exclusively on system functions. While they are able to explain the contingent functionalities of an item, they are too open-ended (as is the notion of “system”), and consequently unable to explain normativity. Neither can they explain the intuition that some relevant functions have been selected through evolution (for instance, one may assume that the heart has been selected because it has the function of pumping blood, not because it has the function of making a characteristic noise).

Within this theoretical puzzle, Preston argues that these two kinds of functions do not necessarily coincide (p. 146): some items of material culture have proper functions but no system functions (for example, used matches); some other items have system functions (usually stabilized ones) that do not correspond to a proper function (the chairs that are used as ladders, or those items of a natural class that play a role in a contingent system). In the material culture there is a cultural acknowledgement, in the legal and ethical practices, that technical items generally have a proper function. To be faithful to these and other relevant phenomena, one must accept, according to Preston, a pluralistic theory of function.

This leads Preston to ponder the possibility of transferring in general the concepts of proper and system function from the field

of biology to the field of material culture. In the case of system function, Preston sees no principled difficulties, but in the case of proper function there are more problems at stake, especially the ones related to the notion of selection, already problematic in biology. Preston concludes that in both fields evolution must be conceived as a history of incremental changes without teleological goals. Neither a watch nor a wing can be seen as the result of some kind of selection or creation *ex nihilo*; both are the result of a large number of small incremental changes.

In the concluding passages of chapter 5, Preston explores the notion of fitness, underlying the idea that organisms reproduce themselves, while items of material culture are reproduced (by others). The latter notion leaves her at the door of intentionalism, for one may suppose that utility is the reason why cultural items are reproduced, and utility seems to depend on purposes and expectations, that is, on the intended use. She thus acknowledges that, regarding the attribution of function, intentionalism must be taken seriously, which is the aim of the rest of her book.

At this point, we can sketch a panoramic view of the book. Preston's critique of the centralized control model and her socio-generic approach to human action count as valuable contributions. However, some of the consequences she infers from these well-grounded positions are debatable. A main question is whether accepting these positions (as we do) amounts to a radical anti-intentionalism—as Preston herself occasionally suggests, to “de-emphasizing” intentionalism—as she explicitly affirms, or merely to re-thinking intentionalism—as we in fact believe.

To evaluate these possibilities, it is necessary to analyze the final chapters. Chapter 6 discusses the pretense of explaining artefactual function, especially the proper function, in reference to intentions. The standard intentionalist position puts forward the image of an individual designer or some equivalent figure, such as an inventor or maker. Preston points out not only that this role is usually played collectively, but also that the users are able to imprint new functions or even change the intended use of the designers, thus taking up a role that intentionalism cannot satisfactorily explain. In order to clarify these notions and to show the limits of intentionalism, she looks closer into two telling phenomena: the prototype and the phantom function. She rightly claims that intentions are socially embodied in patterns of use and cultural practices, that one cannot usually find clear and prefigured intentions related to these practices, and that the

explicit beliefs of most people are not always relevant when it comes to explaining functions in material culture. But her view on the complex and ever-changing dynamism of the intentional conformation of material culture does not necessarily amount to an anti-intentionalist stance or to a substantive de-emphasizing of intentionalism; instead, it amounts to a reinterpretation of the criticized position.

It is from this perspective that one should read the final chapter, which takes a closer look at reproduction in material culture. At least since Aristotle, technical making and biological growing have provided two different models of reproduction. Preston thinks that Tim Ingold challenges this traditional standpoint, calling into question the notion that, upon making an item of material culture, the maker imposes externally a pre-existing mental design on a passive matter. Ingold thinks that both in making and growing —that is, both in cultural practices and biological reproduction—, there is a complex interplay of forces, involving, in the case of material culture, the learned skills of an agent.

Preston applies this notion of structure formation to the establishing of functions in the material culture. Regarding the proper function, a strong anti-intentionalist moment in her book happens when she claims,

What is necessary for the reproduction of proper-functional items, though, is not that anyone actually *know* the history, but that there *be* such a history. In this respect, material culture is no different than biology, where what matters are the actual evolutionary and genetic relationships, not whether anybody knows about them. (p. 197)

However, this anti-intentionalist drive loses its strength later in the chapter. After declaring that material culture is a second nature (in the abovementioned sense), Preston admits —in the second part of this chapter— that, after all, intentions play a relevant role. To be sure, she never denies the latter claim; she only rejects the classical intentional theories and their related centralized control model based on an individualist conception of intention and action. Consequently, the author complements McLaughlin's formula: “No agents, no purposes, no functions” with its counterpart: “No functions, no purposes, no agents”, stating that both are in fact correct (p. 206).

When it comes to evaluating the merits of the book, one can leave a number of specific points aside, such as the questionable political proposal related to her function theory, the dubious rhetorical advantage of the analysis of songwriting, or the lack of an adequate

consideration of how natural items are usually co-opted in the material culture. These are minor points in view of her achievements. Preston develops a worthwhile contribution to the critique of the centralized control model in material culture (this notion being an outstanding finding) and thus of the classical action theory. Along the same lines, her discussion of the topic of function theory in biology and material culture is undeniably excellent. However, we think that her critique of intentionalism, made in a context of valuable suggestions and incitements, contains several debatable points that we will mention in our final remarks.

As the author explicitly affirms, an important purpose of the book is “de-emphasizing the role of intention in the establishment of function” (p. 161). Since the latter concerns not only the sphere of function but also the field of action—that is, technical production, learning, and skill acquisition—, it can be seen as a global aim. In fact, Preston aims her main critiques at the intentionalism that is implicit in the centralized control model, that is, at those views that involve a strong conception of author. However, the resulting position is not the one adopted by radical anti-intentionalism (Ingold, Latour, material agency, etc.). Against this view, Preston admits not only that human agents act intentionally, but also that intentions play a significant role in the establishment of technical functions and the structuration of a technical world.

The problem is that Preston does not clearly define her position between the two extremes of the control model and the radical anti-intentionalism. The mere admission that intentions play a significant role in the establishment of functions is not enough to disambiguate this position, for it can be construed in a variety of ways; for instance, one could think that (1) human practices are in part constituted by individuals that have intentional states; or that (2) the intentions of an individual determine the proper function of an artifact (the standard intentionalist view, which Preston would not accept, as a matter of fact); or, finally, that (3) technical changes, especially the relevant ones, cannot be explained without reference to intentional attitudes of individuals or groups that consciously deliberate and make decisions.

It is evident that each one of these positions —the list of possibilities could go on— has different theoretical implications regarding the relationship between intentions and artifacts. This ambiguity leads, though, to an interesting and perhaps deeper question: Should Preston’s book be read as a way out of intentionalism in material

culture? She rightly criticizes the idea that prefigured individual and self-sufficient intentions are able to establish functions in material culture, and she offers a brilliant picture of the collaborative and social activities that characterize human action. This does not amount to a complete rejection of intentionalism; it can be construed as a more realistic and complex view of the role human intentions play in culture.

From the latter perspective, there is a deep coincidence between Preston and intentionalism: both assume the normative background of material culture in each of its expressions. There is a difference, though, in the way intentionalism is conceived: whereas human practices (where cultural products acquire their authentic meaning) are Preston's focus and units of analysis, the classical intentionalist views are centered on the notion of a non-socialized individual —and from this starting point they (wrongly) give an account of collective action and sociality in general—. It should be stressed that, from both standpoints, the normative background hinders any radical anti-intentional approach. What makes Preston's book fruitful is that the tensions, ambiguities, and puzzles present in her argumentation give us, beyond doubt, a strong incentive to rethink the role of human intentions in the sphere of material culture.

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