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# Preparing the Ground for an Empirical Theory of Knowing-How

A Reply to Ramiro Glauer

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The commentary gives a clear and instructive summary of our main arguments against both, intellectualist and anti-intellectualist accounts of knowing-how. But the aim of our account is not correctly described as an attempt to give an explanation of certain cognitive capacities that are taken to be expressions of knowing-how in terms of underlying mental representations. (Glauer [this collection](#), p.10). What we aim at is not an empirical theory of knowing-how, but a framework that would be useful for cognitive scientific research on phenomena of knowing-how.

## Keywords

(Anti-) intellectualism | Conceptuality | Knowing-how | Knowing-that | Knowledge representation | Propositionality

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## 1 Answer to the Commentary

First, we want to thank Ramiro Glauer and emphasize that his commentary gives a clear and instructive summary of our main arguments against both intellectualist and anti-intellectualist accounts of knowing-how (see Section 2). As he rightly points out, we are parting ways with

[Jason Stanley \(2011\)](#) with respect to the issue of *propositionality* as an alleged demarcation criterion between knowing-how and knowing-that. There are at least three different conceptions of propositionality, and none turns out to be helpful in making the distinction. In particu-

lar, the semantic reading of propositionality, according to Stanley’s thoughtful and impressive account, applies to clear-cut cases of knowing-how. Since knowing-how is no less propositional, according to the semantic reading, than knowing-that, there is no hope of understanding the peculiarities of knowing-how by adopting such a stance.

In Section 3, Glauer then turns to what in his opinion is the main difference between Stanley’s and our account. Unfortunately, we don’t think that he quite grasps the point that is important to us when he argues that “what happens between Stanley and Bartels & May’s discussion of kinds of knowledge, then, is a shift from a personal-level perspective to a level at which the cognitive system is described” (Glauer [this collection](#), p. 4), and later, “Bartels & May, on the other hand, want to explain the peculiarities of practical and theoretical knowledge in terms of the involved underlying representations” (Glauer [this collection](#), p. 5). This, we have to say, is clearly a misrepresentation of our account and the intentions behind our developing it.

To be more specific, we argue that neither the semantic nor the *representational* reading of propositionality is suited to grounding the distinction between knowing-how and knowing-that (Bartels & May [this collection](#), pp. 5–6): “[w]hether a piece of knowledge is a case of practical or of theoretical knowledge does not depend on whether it is supported by language-like structures or not” (p. 6). Thus, contrary to the picture drawn in the commentary, we agree with Stanley with respect to his denial of a *representational* demarcation criterion between knowing-how and knowing-that. We thereby don’t want to express any anti-representational reservations (as is also the case, in our opinion, for Stanley). However, we are skeptical with respect to any type of account that, in rather intuitive ways, identifies kinds of knowledge with ways of representing knowledge. This indeed is our main issue of disagreement with the anti-intellectualists (Glauer mentions this on p. 3).

What about the “shift from a personal-level perspective to a level at which the cognitive system is described” that Glauer mentions

([this collection](#), p. 4)? First, we are not quite sure how Glauer would himself mark the difference between a “person” and a “cognitive system”, and what relevance he would ascribe to that difference with respect to the issue of knowing-how. Our paper wants to make clear that the *first-person-perspective* is an important constituent in the analysis of the specific dispositional states that characterize “practical ways of thinking”—specific ways of epistemic access to propositional contents when knowing-how is at stake (Bartels & May [this collection](#), p. 6). Thus, we agree that the knowing person, including all of his or her cognitive capacities and behavioral resources, has to be taken into account for a thorough analysis of knowing-how; see, for instance, our example of the waiter in a restaurant balancing different types of coffee cups (p. 16).

In essence, Ramiro Glauer’s commentary draws a picture of our account that misses its main intentions. The aim of our account is not correctly described as “an attempt to give an explanation of certain cognitive capacities that are taken to be expressions of knowledge-how in terms of underlying mental representations” (Glauer [this collection](#), p. 9). Instead, our aim is to identify and specify some constituents of an empirically fruitful theory of knowing-how. In a first step, as we argue, this requires a careful description of central epistemic peculiarities that characterize knowing-how *as opposed to* knowing-that, and that thus have to be covered by any adequate theory (see Bartels & May [this collection](#), pp. 12–13). We then ask what general sort of *epistemic capacities* may coincide with the peculiar capacities embodied by knowing-how and knowing-that, respectively. And finally, we suggest that *conceptuality* versus *non-conceptuality* may be the general distinction that coincides with typical knowing-that and knowing-how-capacities, and go on to highlight some of the explanatory virtues of such a proposal. For the last step we use a theory that characterizes conceptual abilities by specific behavioral traits (Newen & Bartels 2007).

Our approach to the problem leaves open by what types of *mental representations* those conceptual abilities may be supported, if at all.

It cannot even be guaranteed that the distinctions drawn within our conceptual framework coincide with any distinctions between representational formats. What we aim at is not an empirical theory of knowing-how, but a *framework* that would be useful for cognitive scientific research on the phenomena of knowing-how. Thus, it may turn out to be useful to fill that framework with psychological or neurological hypotheses concerning representational mechanisms that may produce the epistemic capacities characterizing knowing-how. In Section 7 of our paper (Bartels & May this collection, pp. 16–17) we have provided different empirical examples of mainly psychological research that has already been undertaken in this line.

We are looking at the subject not so much from the perspective of philosophers of mind, but from the perspectives of philosophy of science and psychology. We therefore do not see good reasons to go into any detail of the specific theory that Ramiro Glauer explores in the second part of his commentary (this collection, pp. 6–7), namely the *measurement view* of propositional attitudes (Matthews 2007). Since our contribution does not intend to propose a new theory of knowing-how, it would be quite pointless to compare the potential merits of such a theoretical view with our own account. What we suggest is that psychological research, or cognitive scientific research more generally, may work along the path we have outlined, and thus make progress in explaining knowing-how.

## 2 Conclusion

We agree to the commentary concerning our main arguments against both, intellectualist and anti-intellectualist accounts of knowing-how. But we disagree with it concerning the picture that it draws of the aim of our account.

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