



Philosophical methods under scrutiny: introduction to the special issue *philosophical methods*

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This special issue (short: S.I.) is dedicated to the study of philosophical methodology. Until recently, the debate about philosophical methods in analytic philosophy primarily focused on the method of conceptual analysis, linguistic intuitions, thought experiments, and empirical methods. The result of an analysis of a concept is typically taken to be an explicit definition that consists of a list of individually necessary and jointly sufficient conditions for its fulfillment. Yet, such a list is only a result of a *conceptual* analysis if it is true by virtue of the meaning of its parts and if this truth can be recognized *a priori* with the aid of linguistic intuitions (e.g., Grice 1958). We can test definitions by conducting thought experiments that enact the specified conditions (e.g., Mach 1973; Jackson 1998, ch. 2; Nimtz 2012). This method of conceptual clarification has been criticized in several respects. For instance, Willard van Orman Quine challenged one of its *presuppositions*, namely the analytic/synthetic distinction (Quine 1951). Hilary Kornblith argued that its *aim* of specifying individually necessary and jointly sufficient condition cannot be reached (Kornblith 2007; see also Chalmers and Jackson 2001). Longstanding debates about concepts like knowledge are thus rather a gimmick than fruitful philosophical work (Kornblith 2014). Lynne Rudder Baker aimed to show that empirical considerations are involved in seemingly *a priori* analyses (Rudder Baker 2001), and it has been debated whether conceptual analysis is knowledge expanding (for this debate see, e.g., Balcerak Jackson and Balcerak Jackson 2012; Balcerak Jackson 2013). In recent years, it has also been argued that conceptual analysis should not be carried out by individual philosophers. Instead, folk intuitions need to be elicited by means of quantitative research. Such arguments

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led to the rise of so-called *experimental philosophy* (e.g., Knobe and Nichols 2008; Horvath and Grundmann 2012), and to even more debates about the nature of conceptual analysis (e.g., Nitz 2012), the role of thought experiments within it (e.g., Williamson 2007; Nitz 2010; Malmgren 2011; Grundmann and Horvath 2014), the epistemic status of counterfactual conditionals, which are central for the latter (e.g., Williamson 2007), and about the notion of conceptual truth (e.g., Nitz 2009).

The S.I. at hand supplements this debate about philosophical methodology by placing emphasis on other methods and debates. Its focus is on explication, conceptual (re-)engineering, the application of formal methods, and other methodological considerations that are central for philosophical practice and have not received enough attention in the literature. A common feature of many methods that are discussed in this S.I. is the *sharpening* of concepts. Rudolf Carnap (1950) coined the method of *explication*. He suggested to replace the concept of interest, the *explicandum*, with a similar *explicatum*, which needs to be fruitful, simple, and exact. In contrast to conceptual analysis, not *all* uses of the concept need to be captured. Instead, problematic uses are meant to be excluded when specifying the explicatum. Quine demanded that explication should replace conceptual analysis in many parts of philosophy (Quine 1960). However, apart from a brief debate between Strawson (1963) and Carnap (1963), the method of explication was only sparsely employed (Hanna 1968; Craig 1990; Boniolo 2003; Maher 2007) until recently. Within the past couple of years, however, its popularity rose (e.g., Brun 2016), especially within epistemology (e.g., Brendel 2013; Olsson 2015; Eder ms.) and philosophy of science (e.g., Schupbach and Sprenger 2011; Justus 2012; van Riel 2014; Schupbach 2017). Some philosophers (e.g., Brun 2016) consider Carnapian explication to be a method among a broader family of method that recently gained more interest, namely so-called *conceptual (re-)engineering*, whose aim is to redefine concepts or even to introduce new ones for particular purposes. This ameliorative method is concerned with how a concept should *function* (e.g., Haslanger 2000; Burgess and Plunkett 2013; Fassio and McKenna 2015). Conceptual (re-)engineering has been applied in recent philosophy with the purpose to change society. Examples are the re-engineering of the concepts of race and of gender (e.g., Haslanger 2012). *Prima facie*, Carnapian explication and conceptual (re-)engineering resemble the use of *formal* methods to clarify concepts, such as the concept of (degrees of) belief (e.g., Huber and Schmidt-Petri 2009; Spohn 2012; Leitgeb 2013, 2014, 2015), coherence (e.g., Bovens and Hartmann 2003; Olsson 2005), confirmation (e.g., Earman 1992), or causality (e.g., Pearl 2000). As in the case of explication, not all uses of the concept in question are meant to be captured and the resulting definitions should be fruitful, simple, and exact.

Reflections on these less discussed philosophical methods are of fundamental importance for many debates taking place in contemporary philosophy, such as the debate about ameliorative projects within social and political philosophy, the knowledge-first approach in epistemology, the a priori/a posteriori distinction in the philosophy of language, and the distinction between verbal vs. non-verbal disagreement as well as the debate about armchair philosophy in philosophy in general. The S.I. contains 12 papers that provide new thought-provoking proposals for these debates.

The first six papers of this S.I. investigate the method of Carnapian explication, by offering reconstructions of Carnap's account of explication or by comparing it to related methods and addressing some of the criticisms that have been raised against it.

Georg Brun's paper "Conceptual Re-Engineering: From Explication to Reflective Equilibrium" deals with two prominent philosophical methods: Carnapian explication and the equally well-known method of reflective equilibrium as developed by Nelson Goodman. Brun focuses on unappreciated relations between Carnap's method and Goodman's theory of constructive definitions and his account of reflective equilibrium, which, as he shows, can also be understood as a method of conceptual engineering. In his instructive paper, Brun investigates the historical and structural relations between those methods and argues that they can be understood "as aspects of one method" that contributes to theory development in philosophy as well as in science. Brun considers Goodman's method of reflective equilibrium to be a "further development" of Carnap's explication. He argues for three main points: (i) conceptual re-engineering should deal with sets of concepts and theories rather than focus on single concepts, (ii) it should be conceived of as a method of mutual adjustments, which (iii) are guided by adequacy requirements analogous to those of Carnapian explication.

Mark Pinder's contribution "On Strawson's Critique of Explication as a Method in Philosophy" explores the limits and prospects of the method of explication as coined by Rudolf Carnap. He does so by thoroughly discussing P.F. Strawson's famous criticism of it (which is also addressed in Catarina Dutilh Novaes's and Eve Kitsik's contribution to this S.I.). As is well-known, Carnapian explication is a method of conceptual clarification that replaces an imprecise concept—mostly from everyday language—by a concept that satisfies the adequacy requirements of being more precise, yet similar in use, fruitful and simple. It does not need to be maximally similar. Strawson's criticism of this method is commonly conceived of as a criticism of the philosophical usefulness of such a method of explication. According to Pinder, the criticism is considered to be that, when it comes to philosophical problems, the method of explication serves only to change the subject—rather than to solve the problem. It does so by simply replacing a concept central to the problem in question by a more precise technical concept that is not central to it. Pinder argues that this understanding of Strawson's criticism is not warranted in its full generality. He argues that whether the method of explication can contribute to solving a particular philosophical problem depends on the purpose of the explication in question, how the particular problem is construed, and the elaboration of the explication.

In "The Constituents of an Explication" Moritz Cordes develops a formal reconstruction of the explication relation, building on previous work by Siegart (1997a, b). Taking explicata to be terms, rather than concepts, he argues that explication is a relation among expressions (the explicandum and the explicatum), each of which is part of a language (the explicandum and the explicatum language), a set of criteria of adequacy, and an explicative introduction (intuitively, the characterization of the explicatum). Each of these six constituents is defined in a purely formal way. Based on these six constituents of an explication, Cordes identifies four different types of explication alternatives—four types of pairs of explications of the same explicandum, whose members differ in various respects (for instance, they may be equivalent with respect to the criteria of adequacy identified while different with respect to the

explicative introduction). Cordes' enterprise can be characterized as an explication of explication; and he picks up this idea in the last section of his paper, applying the apparatus developed in the previous section to his own proposal.

Catarina Dutilh Novaes's contribution focuses on the revisionary character of Carnapian explication. In "Carnapian Explication and Ameliorative Analysis: A Systematic Comparison", she investigates similarities and differences between Carnap's method of explication and Sally Haslanger's method of ameliorative analysis, which is also revisionary in nature. Dutilh Novaes focuses on the importance of the methods of explication and of ameliorative analysis for political and social life and claims that both can contribute to social reforms—which might seem surprising, especially in the case of Carnapian explication. As Dutilh Novaes instructively displays, both methods are influenced by different philosophical schools and were introduced with different agendas. Carnap's method of explication is influenced by his view on rational scientific practice and rational theory formation in science, which traces back to the Vienna Circle. Its significance for social change may not be immediately evident. Haslanger's method, in contrast, is influenced by the critical theory of the Frankfurt School. Dutilh Novaes not only explores the historical relations of both methods but also compares both methods with respect to the above mentioned *change in subject objection* (which is also addressed by Mark Pinder and Eve Kitsik in this S.I.) and with respect to their adequacy requirements. Finally, she shows that both methods are complementary and can benefit from each other.

Whereas Dutilh Novaes discusses the importance of explication and ameliorative projects for non-theoretical purposes, Eve Kitsik focuses on explication and its significance for the clarification of central concepts and positions in theoretical philosophy. In her contribution "Explication as a Strategy for Revisionary Philosophy", she too shows that Carnapian explication can play a central role for revisionary philosophy. According to Kitsik, revisionary philosophy is concerned with the project of challenging beliefs that philosophers are very confident of. This project is motivated by the fact that some beliefs that initially seem very plausible can turn out to be implausible when their content is investigated more thoroughly. She focuses on two revisionary projects: revisionary ontology and radical skepticism. Kitsik argues that philosophers engaged with such projects should make it explicit that they depart from the everyday use of "*F*s exist" and "*S* knows that *p*", respectively. Such departure, however, faces two main worries—the *unintelligibility worry* and the aforementioned *topic shift worry*, or *change in subject objection*. Roughly, according to the unintelligibility worry, if the use of philosophical notions or claims departs from the everyday use of them, then their "philosophical counterparts" are not intelligible. According to the topic shift worry, a departure from everyday use of notions such as "*F*s exist" and "*S* knows that *p*" changes the topic and does not address original worries. Kitsik discusses the worries in detail and alleviates them. According to Kitsik, questions and objections can be adequate in philosophical contexts that would be inadequate in everyday contexts. One reason for this is that in philosophical contexts the purpose is to achieve epistemic excellence, which is a more demanding purpose than is commonly aimed for in everyday contexts.

Martin Kusch and Robin McKenna discuss a related method in “The Genealogical Method in Epistemology”. They defend Edward Craig’s genealogical approach to an analysis of knowledge against objections. Craig himself believed his method to be linked to Carnapian explication (Craig 1987). On Craig’s view, identifying a function of the use of ‘knowledge’ in a state of nature and constructing, from there, a genealogical story which leads to an understanding of ‘knowledge’, will benefit our philosophical understanding of ‘knowledge’, without relying on an analysis of the concept, in terms of individually necessary and jointly sufficient conditions. The objections Kusch and McKenna discuss are divided into four groups. The first concerns the details of Craig’s approach: that it (i) fails to identify the main function of knowledge ascriptions in general, or that it (ii) does not adequately address the various functions paradigmatic knowledge ascriptions may serve. The second group concern alleged methodological problems: that (iii) Craig focuses on a social kind, whereas any such project should focus on a natural kind of knowledge, provided not in the sociology of knowledge but in cognitive ethology, that (iv) Craig commits to problematic accounts of knowledge when suggesting that true belief is more fundamental than knowledge. The third kind of objection directly targets the genealogical method – that it is a purely fictional just so story whose alleged explanatory power is highly questionable (v). The final two objections concern consequences of Craig’s approach regarding possible normative implications of contextualism and relativism (vi, vii).

The following four papers focus on various aspects of the peculiarities of philosophical investigations that are somehow related to the armchair: philosophical expertise, armchair philosophy and its relation to methodological naturalism, and the a priori/a posteriori distinction.

In their paper “Philosophical Expertise Under the Microscope” Miguel Egler and Lewis Ross provide a new version of the so-called expertise defense in favor of armchair philosophy. In a nutshell, the argument is that philosophers’ reliance on intuitions in their reasoning is vindicated by their expertise. Egler and Ross’ version draws on a more fine-grained analysis of philosophical expertise. There are different methodological practices in philosophy, such as different uses of thought experiments, and thus different kinds of philosophical expertise. Each of these must be considered individually. Yet, either way, it is not the expertise of intuitions that vindicates their use but the expertise in philosophical practices. Egler and Ross illustrate their ‘piecemeal’ version of the expertise defense with the example of ordinary language philosophy.

Sebastian Lutz, in his paper “Armchair Philosophy Naturalized”, explores, first, the question of how conceptual engineering in philosophy relates to practices in the sciences, and suggests, second, some general conclusions about the synthetic/a priori distinction and its role in philosophy. In a nutshell, Lutz argues that a considerable part of the sciences is concerned with conceptual matters (analytic or conventional) and that, as a consequence, the naturalist, whose main contention is that philosophy should resemble the sciences in its methodology, need not require philosophy to abandon its well-established procedures of conceptual clarification or engineering. Upon closer inspection, it turns out that philosophy is continuous with the sciences in precisely this respect. The discussion is framed in terms of Carnapian explication, and can be regarded as a defense of both, Carnapian armchair philosophy and conceptual engi-

neering (à la Carnap) in the sciences against criticisms raised by William Demopoulos, David Papineau and Willard Van Orman Quine.

Daniele Sgaravatti's aim in his paper "Experience and Reasoning: Challenging the A Priori/A Posteriori Distinction" is to expand upon an argument by Timothy Williamson against the significance of the a priori/a posteriori distinction. It is commonly assumed that knowledge is a priori when it is independent of experience, where knowledge is a posteriori when it depends on experience. Sgaravatti focuses on examining the nature of the dependencies in question. He aims to show that there is no characterization of said dependencies that would allow to draw the a priori/a posteriori distinction in a satisfying way. Either the characterizations do not allow for a priori knowledge or they lead to classifying paradigmatic instances of a priori beliefs as a posteriori beliefs or, on the opposite side, they classify too many beliefs as a priori. Sgaravatti illustrates this argument and defends it against objections. His diagnosis for the issue is that the role of experience in reasoning is neither purely enabling nor purely evidential. Reasoning skills are dependent on experience for their normative value. Their normative status depends on the experiences that constitute their acquisition and development.

In his paper "On Question-Begging and Analytic Content", Samuel Elgin is concerned with the clarification of the concept of *question begging arguments*. He clarifies the concept in terms of *analytic content* illustrated by some cases: An argument begs the question just in case its conclusion is part of the analytic content of the conjunction of its premises. Thereby, not all valid arguments beg the question. Analytic truth and analytic containment is understood roughly along Fregean lines. Elgin's answer to the question of what goes epistemically wrong with question begging arguments is that one cannot use the premises to gain knowledge of the conclusion: It is impossible to know that the conjunction of the premises is true without knowing that the conclusion is true—provided that knowledge is closed under analytic parthood.

The remaining two papers discuss topics in (meta-)metaphysics: something-from-nothing derivations, and the question if, and if so in which sense, metaphysical disputes are merely verbal.

Alex Steinberg, in his "Pleonastic Propositions and the Face Value Theory", deals with a recent realist response to nominalist doubts concerning the existence of abstract objects: pleonasticism. He discusses Stephen Schiffer's pleonastic theory of propositions, according to which: propositions (i) are derivative, 'pleonastic' objects, and (ii) are referred to in propositional attitude ascriptions (the face value theory). Steinberg argues that (i) and (ii) generate a tension: if propositions are pleonastic, we should expect substantive truths about them to derive from unproblematic truths about non-pleonastic objects. But if attitude ascriptions already treat of propositions, substantive truths concerning which propositions are the contents of which attitudes (content ascriptions) have no obvious grounds in the non-pleonastic. Steinberg suggests that we should give up part (ii) of the account of propositions in response to the difficulty. In a first step, Steinberg argues that the main argument in favor of the face-value theory, which is based on the observation that we can quantify into the position of 'that'-clauses in attitude ascriptions, is not decisive, since we can quantify into verb phrase and adjectival positions as well. Steinberg then shows how dropping the assumption dissolves the tension in the resulting theory: if (ii) is denied, we are free to claim that

content ascriptions derive from propositional attitude ascriptions, which, crucially, are themselves ontologically innocent. Steinberg ends by arguing that this suggestion also explains some peculiarities noted by Schiffer of the alleged proposition designators that occur in propositional attitude ascriptions.

In his paper “Why Metaphysical Debates are Not Merely Verbal (Or How to Have a Non-Verbal Metaphysical Debate)”, Mark Balaguer tackles the question of whether particular metaphysical debates are merely verbal, such as debates about the existence of objects in the past. His main thesis is that none of these debates are, in principle, merely verbal. The key element of a merely verbal dispute is that the meaning of a core notion is understood differently by the participants. Taking the different meanings into account, the disagreement typically dissolves. Balaguer boils down the question at stake to the question of whether the metaphysical *questions* that drive the respective disputes can be, in principle, non-merely verbally debated. Employing a taxonomy of different kinds of metaphysical views, he then argues by means of an example that any of the debates in question allows for non-verbal debates if certain conditions are fulfilled, and he defends his argument against objections. One crucial condition is that the debate needs to be carried out in a language that has a *thick* semantics, i.e., a semantics that says that the sentences whose truth values are being debated have metaphysically weighty truth conditions—in other words, a semantics that says that the sentences in question could be true only if the relevant controversial metaphysical theory is true.

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References

- Balcerak Jackson, M. (2013). Conceptual analysis and epistemic progress. *Synthese*, 190(15), 3053–3074.
- Balcerak Jackson, M., & Balcerak Jackson, B. (2012). Understanding and philosophical methodology. *Philosophical Studies*, 161(2), 185–205.
- Boniolo, G. (2003). Kant’s explication and Carnap’s explication: The redde rationem. *International Philosophical Quarterly*, 43(171), 289–298.
- Bovens, L., & Hartmann, S. (2003). *Bayesian epistemology*. Oxford: Clarendon Press.
- Brendel, E. (2013). *Wissen*. Berlin/New York: de Gruyter.
- Brun, G. (2016). Explication as a method of conceptual re-engineering. *Erkenntnis*, 81(6), 1211–1241.
- Burgess, A., & Plunkett, D. (2013). Conceptual ethics I & II. *Philosophy Compass*, 8(12), 1091–1110.
- Carnap, R. (1963). Replies and systematic expositions. In P. A. Schilpp (Ed.), *The philosophy of Rudolf Carnap* (pp. 859–1013). La Salle (IL): Open Court.

- Chalmers, D., & Jackson, F. (2001). Conceptual analysis and reductive explanation. *Philosophical Review*, 110(3), 315–361.
- Craig, E. (1987). The practical explication of knowledge. *Proceedings of the Aristotelian Society*, 87, 211–226.
- Craig, E. (1990). *Knowledge and the state of nature: An essay in conceptual synthesis*. Oxford: Oxford University Press.
- Earman, J. (1992). *Bayes or bust?*. Cambridge, MA: MIT Press.
- Eder, AM. A. (manuscript). On explicating ‘epistemic rationality’.
- Fassio, D., & McKenna, R. (2015). Revisionary epistemology. *Inquiry*, 58(7–8), 755–779.
- Grice, H. P. (1958). Postwar Oxford philosophy. In: Grice, H. P. (1989), *Studies in the way of words*. (pp. 171–180). Cambridge, MA: Harvard University Press.
- Grundmann, T., & Horvath, J. (2014). Thought experiments and the problem of deviant realizations. *Philosophical Studies*, 170(3), 525–533.
- Hanna, J. F. (1968). An explication of ‘explication’. *Philosophy of Science*, 35(1), 28–44.
- Haslanger, S. (2000). Gender and race: (What) are they? (What) Do we want them to be? *Noûs*, 34(1), 31–55.
- Haslanger, S. (2012). *Resisting reality: Social construction and social critique*. Oxford: Oxford University Press.
- Horvath, J., & Grundmann, T. (Eds.). (2012). *Experimental philosophy and its critics*. London: Routledge.
- Huber, F., & Schmidt-Petri, C. (Eds.). (2009). *Degrees of belief*. Dordrecht/New York: Springer.
- Jackson, F. (1998). *From metaphysics to ethics. A defense of conceptual analysis*. Oxford: Oxford University Press.
- Justus, J. (2012). Carnap on concept determination: Methodology for philosophy of science. *European Journal for Philosophy of Science*, 2(2), 161–179.
- Knobe, J., & Nichols, Sh (Eds.). (2008). *Experimental philosophy*. Oxford: Oxford University Press.
- Kornblith, H. (2007). Naturalism and Intuitions. *Grazer Philosophische Studien*, 74(1), 27–49.
- Kornblith, H. (2014). *A naturalistic epistemology: Selected papers*. Oxford: Oxford University Press.
- Leitgeb, H. (2013). Scientific philosophy, mathematical philosophy, and all that. *Metaphilosophy*, 44(3), 267–275.
- Leitgeb, H. (2014). The stability theory of belief. *Philosophical Review*, 123(2), 131–171.
- Leitgeb, H. (2015). The humean thesis on belief. *Aristotelian Society Supplementary*, 89(1), 143–185.
- Mach, E. (1973). On thought experiments (S. Krimsky, Trans.). *The Philosophical Forum*, 4(3), 446–459.
- Maher, P. (2007). Explication defended. *Studia Logica: An International Journal for Symbolic Logic*, 86(2), 331–341.
- Malmgren, A. S. (2011). Rationalism and the content of intuitive judgements. *Mind*, 120(478), 263–327.
- Nitz, C. (2009). Conceptual truth defended. In N. Kompa, C. Nitz, & C. Suhm (Eds.), *The a priori and its role in philosophy* (pp. 137–155). Paderborn: Mentis.
- Nitz, C. (2010). Thought experiments as exercises in conceptual analysis. *Grazer Philosophische Studien*, 81(1), 189–214.
- Nitz, C. (2012). Begriffsanalyse heute. *Zeitschrift für Philosophische Forschung*, 66(2), 218–247.
- Olsson, E. J. (2005). *Against coherence: Truth, probability, and justification*. Oxford: Oxford University Press.
- Olsson, E. J. (2015). Gettier and the method of explication: A 60 year old solution to a 50 year old problem. *Philosophical Studies*, 172(1), 57–72.
- Pearl, J. (2000). *Causality: Models, reasoning, and inference*. Cambridge: Cambridge University Press.
- Quine, W. V. O. (1951). Two dogmas of empiricism. *Philosophical Review*, 60(1), 20–43.
- Quine, W. V. O. (1960). *Word and object*. Cambridge, MA: MIT Press.
- Rudder Baker, L. (2001). Philosophy in mediis rebus. *Metaphilosophy*, 32(4), 378–394.
- Schupbach, J. (2017). Experimental explication. *Philosophy and Phenomenological Research*, 94(3), 672–710.
- Schupbach, J., & Sprenger, J. (2011). The logic of explanatory power. *Philosophy of Science*, 78(1), 105–127.
- Siegart, G. (1997a). Explication. Ein methodologischer Versuch. In W. Löffler & E. Runggaldier (Eds.), *Dialog und System. Otto Muck zum 65. Geburtstag* (pp. 15–45). Sankt Augustin: Academia.
- Siegart, G. (1997b). *Vorfragen zur Wahrheit. Ein Traktat über kognitive Sprachen*. München: Oldenbourg.
- Spohn, W. (2012). *The laws of belief: Ranking theory and its philosophical applications*. Oxford: Oxford University Press.

- Strawson, P. F. (1963). Carnap's views on constructed systems versus natural languages in analytic philosophy. In A. Schilpp (Ed.), *The philosophy of Rudolf Carnap* (pp. 503–518). La Salle, IL: Open Court.
- van Riel, R. (2014). *The concept of reduction*. Dordrecht/New York: Springer.
- Williamson, T. (2007). *The philosophy of philosophy*. Oxford: Oxford University Press.