

# Conceptual Engineering

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## 1. Introduction

Descriptive projects have arguably been predominant in the history of philosophy. A descriptive project in philosophy is one that aims to offer a correct account of an existing phenomenon. It is successful if and only if it adequately captures the phenomenon. Perhaps most well-known form a descriptive project can take is to offer a ‘traditional analysis’, which provides a set of conditions that are (i) individually necessary and jointly sufficient for the phenomenon, (ii) non-circular and (iii) enjoy explanatory priority over the phenomenon to be accounted for. A traditional analysis is successful if and only if the set of conditions does indeed satisfy (i) – (iii).

Revisionary projects, in contrast, are concerned with bringing about conceptual change. I do not mean to deny that revisionary projects have been on the philosophical agenda for quite some time, with figures such as Descartes, Leibniz and Berkeley being viewed as pursuing them in one way or another (Strawson 1959, 9). All I am saying is that they have not taken centre stage. Most importantly for present purposes, revisionary projects that aim specifically to fix defective concepts have not been on the agenda at all until Carnap’s (1947, 1950) influential work on explication.

Carnap’s work sparked some interest in revisionary projects, including the one of fixing defective concepts. Especially the 1950s and 1960s witnessed work by influential figures on the issue, including Hempel (1952), Goodman (1966) and Strawson (1963), alongside Quine and Carnap himself. And while explication has been on the philosophical agenda ever since, it is fair to say that revisionary projects have had a considerable boost in recent years. In what follows, I first briefly outline Carnap’s proposal, and then I offer an overview of recent developments in the field.

## 1. Carnapian Explication

Carnap introduces explication in his 1945 ‘Two Concepts of Probability’, then in *Meaning and Necessity* (1947), and is explained in most detail in the first chapter of *Logical Foundations of Probability* (1950). According to Carnap, ‘[t]he task of explication consists in transforming a given more or less inexact concept into an exact one or, rather, in replacing the first by the second. (Carnap 1950: 3). Importantly, Carnap thought exactness was a matter of degree: according to him, an explication project - be it of a representational device belonging to ordinary language or to a scientific inquiry - is only justified insofar as the concept at stake is not exact enough for the contextually determined purpose it serves. In turn, the success condition on explication projects consists in the novel concept being more precise than the old one (Carnap 1963, 936).

Carnap introduces several desiderata for a proper explication (Leitgeb & Carus 2022): (1) the explication should be embedded in a sufficiently precise linguistic framework; (2) the explicatum should remain as similar as possible to the explicandum – i.e., the explication process should not depart more from the initial concept than the contextual need for precision requires; however, Carnap is clear that differences in extension will often occur, and are permissible: Indeed, “considerable differences are permitted” (Carnap 1950b: 7) when this serves the purposes of explication; (3) the explication should lead to increased fruitfulness in inquiry: the explicatum should be more usefully applicable in scientific or philosophical theorizing and discourse than the explicandum (1956: 62). (4) simplicity: once all other desiderata have been satisfied, the simplest available explication is to be preferred over more complicated alternatives. (For critical discussions of Carnapian explication and Carnap’s response to critics, see (Schilpp 1963); for contemporary discussions, see e.g. (Carus 2007), (Maher 2007), (Kitcher 2008), (Brun 2016), (Wagner 2012); for an excellent overview see (Leitgeb & Carus 2022)).

## 2. From Explication to Conceptual Engineering

One important reason for the increase in popularity of revisionary projects is due to a broadening in scope thereof. The pioneers who developed the method of explication were primarily interested in removing vagueness and unclarity. What has crystallized in the recent debate is that these are not the only ways in which concepts can be defective, and perhaps not even the most interesting ways. Rather, it is now widely recognized that concepts can be defective along a variety of different

dimensions (see e.g. (Simion 2018, Forthcoming), (Burgess, Cappelen and Plunkett 2020), (Cappelen 2018), (Clark and Chalmers 1998), (Greenough 2019), (Haslanger 2000), (Leslie 2017), (Plunkett and Sundell 2013), (Sharp 2013), (Thomasson 2020), (van Inwagen 2008). See (Cappelen 2018) for a great overview).

Herman Cappelen has recently (2018) offered a useful taxonomy of defects in concepts. They include defects (D1) in the semantic value of the concept, (D2) in the moral, social or political effects of the semantic value, alongside (D3) cognitive defects and (D4) defects in theorising (Cappelen 2018, 34). By the same token, revisionary projects that aim at fixing defective concepts can be carried out in pursuit of making the world a better place along various dimensions. And indeed, the bulk of revisionary projects that have been pursued in the literature fall into these categories. For instance, Kevin Scharp's (2013) attempt to replace the concept of truth to escape the liar paradox falls into category D1, Sally Haslanger's (2000) influential proposals for fixing our concepts of gender and race is an instance of D2 (see e.g. (Duthil-Novaes 2018) for a comparison of Carnapian explication with the Haslangerian 'ameliorative analysis'); Sarah-Jane Leslie's (2017) work on generics falls into category D3 and Clark and Chalmers (1998) on the extended mind as well as the pioneering work on explication fall into category D4.

### **3. Kinds of Revisionary Projects**

I mentioned that the revisionary project of fixing defective concepts has broadened up and that there is a growing literature featuring a plethora of exciting proposals that go significantly beyond the kind of endeavour that the pioneers were discussing in the 1950s. It will come as little surprise that we have adopted new terminology for the broader enterprise, whilst reserving 'explication' for the narrower Carnapian project. The perhaps most prominent labels are 'conceptual engineering' (Creath 1990, Blackburn 1999, Cappelen 2018) and 'conceptual ethics' (Burgess and Plunkett 2013a,b, Thomasson 2019). This makes perfect sense given that both pick out one important dimension of the project of fixing defective concepts. The 'engineering' in 'conceptual engineering' emphasizes its constructive dimension: the bringing about of conceptual change. The 'ethics' in 'conceptual ethics' emphasises its normative dimension: the fixing of a defect. Insofar as we are interested in fixing defective concepts, both terms seem entirely adequate.

More recently, a push to further widen the scope of the CE programme concerns its focus. One of the main ideas I

(alongside others) have argued for extensively (e.g. Simion 2017, Simion&Kelp 2020) is that the focus on conceptual repair that permeates the current literature still unduly limits the scope of the endeavour. After all, on most normative pictures in the literature, for all  $\phi$ , what T-justifies  $\phi$ -ing is any T-type improvement, not necessarily only fixing T-type defect. If it is prudentially better that I go to Mary's party tonight, than I am prudentially justified in going to Mary's party tonight. If that is the case, however, it is less than clear why engineers have been modestly restricting ameliorative ambitions to fixing language, rather than improving language. After all, to give but one example, say that there was nothing wrong with our concept of 'woman', semantically, morally, politically or otherwise. Say, however, that it could be engineered such as to substantially improve women's life. Should we not attempt to do so? The upshot of this is a fairly optimistic, much broader picture concerning the normative limits of the engineering project: Conceptual engineering need not merely draw its normative support from defects of our representational devices; proposals of improvement for perfectly functional concepts will do just as well.

This suggests a further broadening and, in fact, a reorientation of the central focus of the project away from conceptual repair and towards conceptual innovation. Of course, we can engineer new fixes for old defects. In this respect, the old view is part of this proposal. Crucially, however, the new view goes well beyond this. In particular, it places engineering new representational tools from scratch at the very heart of the endeavour (e.g. Simion & Kelp 2020). Furthermore, instead of focusing on defects as justifiers for CE projects, this view takes conceptual functions to fulfill this role: we should engineer concepts that serve their functions (be they semantic, epistemic, moral, social political etc) better.

#### **4. The Objects of Engineering: Words, Concepts, Meanings, Reality**

Another issue that has been at the forefront of the debate especially in the recent literature on conceptual engineering is what exactly the items to be engineered are supposed to be. The perhaps most prominent candidates are words, concepts, meanings, reality, and conceptions. For present purposes, these are the candidates we will be focusing on.

Corresponding to these five candidates, there are four kinds of revisionary projects that one might want to embark on. For each kind of project, it may or may not fall within the ambit of one's revisionary ambitions. That is to say, some will venture

to bring a linguistic revisionary project to fruition, others a conceptual or a semantic one. And yet others may try to revise our conceptions of things or even reality. What's more, one may attempt to pull off more than one of these projects at any one time. In fact, one may even try to accomplish one project by means of accomplishing another. For instance, one may try to effect a change in a certain concept by changing reality or by changing the linguistic terrain, one may try to change people's conceptions by changing their concepts and so on.

The differences between those projects are better understood in some cases than in others. Linguistic projects concern words, reality projects concern the world, and conception projects concern our beliefs. There are clear and easily appreciable differences here. It's also clear that these projects differ from conceptual and semantic projects. What is less clear is how conceptual and semantic projects differ from each other, if, indeed, they differ at all.

## **5. Pessimism and Optimism about Revisionary Projects**

Among the central questions in the debate on revisionary projects are whether they can be done, whether they should be done and under what conditions they are successful. The following questions are of central significance for those working in the theory of revisionary projects:

- Is conceptual innovation possible?
- Should we engage in conceptual innovation?
- Can we specify conditions under which conceptual innovation is successful?
- Is conceptual ethics possible?
- Should we engage in conceptual ethics?
- Can we specify conditions under which conceptual ethics is successful?
- Is conceptual engineering possible?
- Should we engage in conceptual engineering?
- Can we specify conditions under which conceptual engineering is successful?

Extreme pessimists answer 'no' to some or all of these questions (e.g. Greenough 2019). Cautious pessimists worry that concepts are hard to engineer because they are in some sense out of our control (see e.g. (Chalmers 2011), (Eklund 2015), (Burgess and Plunkett 2013a and 2013b)). Cautious optimists agree: it's hard. This shouldn't stop us, however: many things we do are hard,

and this hasn't stopped us before (Cappelen 2018). Finally, full optimists think that there's nothing distinctively hard about conceptual engineering: we are very good at effecting lasting change in our world; concepts should make no exception (Koch 2018, Simion & Kelp 2018).

One reason why some of these questions are hard is that it not clear that concepts are even the kinds of things that admit of change. If they don't, the project of conceptual engineering (as literally involving concepts) will be doomed to failure from the get-go, at least if we understand it as effecting change in defective concepts. And even if it turns out that concepts are the kinds of things that can change, conceptual engineering faces further important hurdles. One comes into sharp relief when we ask the question of whether we have the kind of control over the shape of our concepts that would be needed for it to make sense to try and bring about conceptual change in the first place. If our concepts take the shape they do in a way that we have little to no control over, it again seems futile to try and engage in conceptual engineering.

And we haven't even begun considering the question of what it takes for a revisionary project to be successful. Unsurprisingly, here too, there is trouble on the horizon. In particular, one might worry that it is futile to try and specify a success condition for some kind of revisionary project or other, given that it might turn out that the concepts at issue in the success condition might themselves be defective and so in need of engineering (Cappelen 2018, 152).

In response to all of these worries, optimists have proposed various ways to understand the method and success conditions for projects in conceptual engineering that suggest the endeavour may, after all, be within reach. To give but two notable examples: Method-wise, popular internalist accounts suggest to go about conceptual engineering via metalinguistic negotiation: via settling disagreements about what should fall in the extension of a particular concept via identifying what all-things-considered normativity suggests at the context. When it comes to the issue of the success condition, popular externalist accounts include functionalist views (e.g. Haslanger 2000, Thomasson, Simion & Kelp 2020), according to which a conceptual engineering project is successful just in case the novel concept serves its function better. On a view like this, a conceptual engineering project proceeds by first identifying the function a particular concept serves – be it representational, moral, social, political etc – and then identifying way to improve the concept vis-a-vis its disposition to fulfil its function. Progress towards function fulfilment is, on a view like this, the success condition for engineering projects. It is easy to see that Carnap's explication project itself can be subsumed

under functionalism – albeit a particularly restricted version thereof, that only takes a representational and scientific inquiry-facilitating functions as a legitimate success-condition generators. Most contemporary proposals would be more inclusive – indeed, it is fair to say that ethical and political function fulfilment are popular triggers for contemporary engineering projects. Nevertheless, it is fair to say that there is a live debate as to whether epistemic, representational functions should take precedence in restricting permissible engineering projects or not (Simion 2018, Pdoski...). Epistemicists argue that, since the main function of concepts is representational, we should only engineer concepts insofar as no epistemic loss is incurred thereby. In this, the epistemic trumps all other normative concerns on this proposal. Other philosophers disagree: epistemic considerations are to be weighed against other relevant normative considerations.

## 6. Conclusion

Work in conceptual engineering focuses on two main directions of research: the meta-philosophical project, and the implementation project. The metaphilosophical project inquires into the metaphysical and normative limits of conceptual engineering itself – can it be done? should it be done? – while the implementation project focuses on case work – i.e., on proposing concrete ameliorations.

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