

Concepts and Conceptual Engineering

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Abstract: Conceptual engineering is, *prima facie*, the engineering of concepts. But what are concepts? And in what sense, if any, can they be engineered? In this chapter I introduce conceptual engineering and then distinguish three different understandings of concepts. The first, prevalent in parts of cognitive science, is the *psychological account*, which sees concepts as psychologically real cognitive structures in individuals' minds. The second, with historical connections to the pragmatism of Carnap, is the *semantic account*, which sees concepts as semantic meanings determined by conventional principles of use. The third, rooted in Frege's rationalism and in anti-individualism, is the *representationalist account*, which sees concepts as publicly accessible components of thought, determined ultimately not by use but by direct relations between individuals and the world. Disagreements over the nature, target and possible implementation of conceptual engineering are, I will claim, ultimately grounded in the more fundamental disagreement over the nature of concepts.

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Conceptual Engineering

Recent philosophical interest in conceptual engineering is in large measure due to Herman Cappelen's book *Fixing Language*, where conceptual engineering is characterized as 'the process of assessing and improving our representational devices'.¹ But, as Cappelen is keen

¹ Cappelen, *Fixing Language*, 3. As noted in Sawyer, 'Truth and Objectivity', conceptual engineering can be understood in a broad sense as including the introduction, elimination or revision of a concept, or in a narrow sense as specific to the revision of a concept alone. This is related to the distinction Chalmers has in mind when he distinguishes 'de novo conceptual engineering', which involves the introduction of a new term, from 'conceptual re-engineering', which involves a revision to a term that is already in use. See Chalmers, 'What Is Conceptual Engineering?'; and Brun, 'Explication as a Method'. The main, though not exclusive, focus of the present chapter is conceptual engineering in the narrow sense.

to emphasize, projects in conceptual engineering are not themselves new and are in fact remarkably widespread. Cited examples include Rudolf Carnap's work on the explication and precisification of concepts for use in science, Sally Haslanger's work on the amelioration of gender and race concepts for the promotion of social justice, Andy Clark and David Chalmer's work on extending the concept BELIEF, Peter Railton's work on revising moral concepts, Alfred Tarski's and Kevin Scharp's respective work on revising the concept TRUTH to avoid inconsistency, the decision of the International Astronomical Union (IAU) to revise the concept PLANET, and the revisionary aims of certain social movements with respect to, for example, the concepts RAPE, MARRIAGE and IMMIGRATION.² Conceptual engineering is said to be 'important for all parts of philosophy (and more generally all inquiry)',³ for example having applications 'all over philosophy ... [and] also ... in medicine, psychology, biology, physics, government and the law'.⁴

Although there is widespread agreement over the significance of the cited examples in terms of furthering the practical goals of social justice and intellectual inquiry, there is fundamental disagreement over how to characterize the cases. That is, there is fundamental disagreement over how to answer the question: What is conceptual engineering? The dominant characterization of conceptual engineering distinguishes it from the 'traditional'

Conceptual ethics is even broader in scope, referring to the overarching activity of assessing our concepts whether or not that leads to revision in any sense: ensuring one's house is in order, as one might say. See Burgess and Plunkett, 'Conceptual Ethics I' and 'Conceptual Ethics II'.

² For the cited examples from within philosophy, see Carnap, *Logical Foundations*; Haslanger, 'Gender and Race' and *Resisting Reality*; Clark and Chalmers, 'The Extended Mind'; Railton, 'Naturalism and Prescriptivity'; Tarski, 'The Concept of Truth'; and Scharp, *Replacing Truth*. For an account of how the decision to revise the concept of planet was reached by the IAU, see Ekers, 'IAU Planet Definition Committee'.

³ Cappelen, *Fixing Language*, 1.

⁴ Thomasson, 'Conceptual Engineering', 1–2.

philosophical methodology of conceptual analysis in virtue of its revisionary and normative dimensions. For example, Jennifer Nado says:

Conceptual engineers aim to improve or replace rather than to analyse; to create rather than to discover. While conceptual analysts are interested in the concepts we do have, conceptual engineers are interested in the concepts we ought to have. The project is prescriptive rather than descriptive.⁵

Similarly, by way of introducing her revisionary approach to gender and race concepts, Haslanger uses the concept of KNOWLEDGE to illustrate the distinctive nature of revisionary projects, setting them apart from both descriptive projects and naturalistic projects. She writes:

For example, the question ‘What is knowledge?’ might be construed in several ways. One might be asking: What is *our* concept of knowledge? (looking to apriori methods for an answer). On a more naturalistic reading one might be asking: What (natural) kind (if any) does our epistemic vocabulary track? Or one might be undertaking a more revisionary project: What is the point of having a concept of knowledge? What concept (if any) would do that work best? These different sorts of projects cannot be kept entirely distinct, but draw upon different methodological strategies.⁶

But despite the apparent distinctiveness of revisionary projects, the dominant characterization of conceptual engineering is disputed. Opponents maintain, variously, that the cited examples of conceptual engineering do not involve revisions to concepts, that they are in fact examples of conceptual analysis, and that conceptual analysis is itself a normative rather than a merely descriptive endeavour. For example, Louise Antony has argued that cases of amelioration cannot be understood as involving revisions to concepts because the very nature of concepts precludes them from being revised.⁷ Teresa Marques has argued that ‘ameliorations do not necessarily *revise* existing concepts, and ... ameliorative analyses are better understood as

⁵ Nado, ‘Conceptual Engineering’, 3.

⁶ Haslanger, ‘Gender and Race’, 32, original emphasis.

⁷ See Antony, ‘Against Amelioration’. Her approach, as she says, is in keeping with the approach articulated in Fodor, *The Language of Thought*.

introducing new concepts to better understand existing social kinds.’⁸ Derek Ball has claimed that some proposals for revisionary analyses are ‘best formulated in terms of competing analyses (rather than in terms of competing concepts)’.⁹ Max Deutsch has claimed that the cited examples involve either the stipulative introduction of technical terms, such as ‘supervenience’, ‘grounding’ and ‘epistemic warrant’, or the revelatory analysis of terms that are already in use, such as ‘knowledge’, ‘justice’ and ‘free will’, where both stipulative introduction and revelatory analysis are parts of conceptual analysis.¹⁰ And over a series of papers, I have argued that what are revised in many cases are not concepts but *conceptions*, which, if revised in the right way, afford a better understanding of the properties to which our concepts already refer, and that this is part of conceptual analysis, which is itself a normative endeavour.¹¹

In order better to understand the disagreement over the nature of conceptual engineering, it will help to step back and look at conceptual engineering through the lenses of three different accounts of concepts. The first, prevalent in parts of cognitive science, is the *psychological account*, which sees concepts as psychologically real cognitive structures in the minds of individuals. The second, with historical connections to the pragmatism of Carnap, is the *semantic account*, which sees concepts as semantic meanings determined by conventional principles of use. The third, rooted in Frege’s rationalism and in anti-individualism, is the *representationalist account*, which sees concepts as publicly accessible components of thought, determined ultimately not by use but by direct relations between individuals and the world. Stepping back in this way allows us to see that the disagreements over the nature, target and possible implementation of conceptual engineering are all symptoms of a more

⁸ Marques, ‘Representing or Shaping Reality?’, 2, original emphasis.

⁹ Ball, ‘Revisionary Analysis’, 38.

¹⁰ Deutsch, ‘Speaker’s Reference’.

¹¹ See for example Sawyer, ‘The Importance of Concepts’, ‘Talk and Thought’, ‘Truth and Objectivity’, ‘Concept Pluralism’ and ‘Kinds of Kinds’.

fundamental disagreement about the nature of concepts. However, my aim in this chapter is not to provide a comprehensive taxonomy of theories of concepts. Instead, I focus on the three accounts just mentioned for the following two reasons: first, these are the three primary accounts of concepts that appear in the literature on conceptual engineering; and second, other accounts of concepts can largely be seen as versions of one or another of these three accounts.¹²

The Psychological Account of Concepts

According to the psychological account of concepts, concepts are psychologically real cognitive structures in the minds of individual subjects. For example, Édouard Machery maintains that concepts are bodies of information about individuals, substances, properties or event types that form a stable core within our belief-like states and are retrieved by default when we engage in higher cognitive tasks such as categorization, inductive generalization, action-planning and linguistic understanding.¹³ Thus my concept DOG is the body of information about dogs that is retrieved by default from my long-term memory when I classify something as a dog, generalize about dogs, decide how to interact with dogs, or engage in conversation about dogs. Alternative psychological accounts of concepts identify them variously as prototypes, exemplars, proxytypes, simulators and conceptual roles, but the aims and explanatory desiderata for each of these different psychological accounts are broadly speaking the same, and the differences between such accounts can be set aside for

¹² Making good on this second claim would require me to provide a comprehensive taxonomy of concepts, which falls outside of the scope of the current chapter. However, I will mention examples as I proceed.

¹³ See for example Machery, *Doing without Concepts* and *Philosophy within Its Proper Bounds*.

present purposes.¹⁴ What unites them is their exclusive focus on the cognitive functions of individuals.

It is easy to see why psychological accounts of concepts are prevalent in cognitive science, where a key focus is the question of how individuals perform cognitive tasks. And it is easy to see why advocates of the psychological account thus claim, within the conceptual engineering literature, that the point of conceptual engineering is to improve an individual's overall performance in cognitive tasks by, for example, changing the information that is stored in her long-term memory or changing which information is retrieved by her by default. Changing these things will affect the way she categorizes individuals, substances, properties and event-types, as well as the inferences she draws, the actions she performs, the stereotypes to which she defaults, and so on.¹⁵ However, the psychological account of concepts does not by itself afford an adequate characterization of conceptual engineering, precisely *because* of its exclusive focus on the cognitive functions of individuals.¹⁶

Note that neither the semantic account nor the representationalist account denies that we have psychologically real cognitive structures that shape and explain the way we perform higher cognitive tasks. Nor do they deny that individuals' cognitive structures in certain cases ought to be changed, or indeed would be changed by the successful implementation of a project of conceptual engineering. What they deny is that these cognitive structures – or more precisely, these cognitive structures alone – are concepts. In addition to acknowledging the psychologically real cognitive structures of individuals, the semantic account maintains that

¹⁴ For prototypes, see Rosch and Mervis, 'Family Resemblances'; for exemplars, see Estes, *Classification and Cognition*; for proxytypes, see Prinz, *Furnishing the Mind*; for simulators, see Barsalou, 'Perceptual Symbol Systems'; for conceptual roles, see Pollock, 'Content Internalism'.

¹⁵ See, e.g., Machery, 'Responses'; Isaac, 'Broad Spectrum'; Pollock, 'Content Internalism'.

¹⁶ Characterizations of conceptual engineering in terms of speaker meaning (see, e.g., Pinder, 'Conceptual Engineering'; Jorem, 'Conceptual Engineering') are problematic for the same reason. A similar point is made in Koch, 'Engineering What'.

there are concepts understood as semantic meanings determined by conventional principles of use, and the representationalist account maintains that there are concepts understood as publicly accessible components of thought, determined not by use but by direct relations between individuals and the world. On both accounts, individuals can have the same shared concept, and hence *prima facie* the same shared reference, despite underlying differences in their individual cognitive structures.¹⁷

The concern over shared reference faced by the psychological account is a long-standing one that arises independently of the question of how to characterize conceptual engineering.¹⁸ The fundamental concern is that the psychological account of concepts presupposes reference rather than explaining it. The fact that a body of information is a body of information *about* dogs, for example, is not necessarily determined by the body of information itself. After all, bodies of information vary from individual to individual and vary within an individual across time, and this means that, if concepts are bodies of information, concepts will also vary from individual to individual and within an individual across time. Similarly for prototypes, exemplars, proxytypes, simulators and conceptual roles. And if my concept DOG differs from your concept DOG, and your concept DOG at one time differs from your concept DOG at another time, what makes it the case that all of these concepts are concepts *about dogs*? What secures shared reference on the psychological account?¹⁹

¹⁷ I say ‘*prima facie*’ because it is not clear whether the semantic account accommodates (or is intended to accommodate) reference at all. I discuss this further below. See also Sawyer, ‘There Is No Viable Notion’ and ‘The Importance of Concepts’.

¹⁸ See, e.g., Fodor, *Concepts*, and Rey, ‘Concepts versus Conceptions’, who claims that the cognitive structures are best thought of as conceptions rather than as concepts.

¹⁹ Pollock (in, e.g., ‘Radical Holism’) embraces the implication that there is no shared reference, and instead invokes a similarity function to explain communication, agreement and disagreement. For a response to this suggestion, see Sawyer, ‘An Externalist Shared Thought’; for more general concerns, see Sawyer, ‘There Is No Viable Notion’. Dual content theories, by contrast, acknowledge both individual cognitive structures and shared referential content. See, e.g., Block, ‘Functional Role’; Margolis and Laurence, Introduction to *Concepts: Core Readings*; Weiskopf ‘Atomism’; Carey, *The Origin of Concepts*; Del Pinal,

But when the question is how to characterize conceptual engineering, the problem of shared reference becomes the problem of how to account for concepts as social phenomena shared across a linguistic community, while at the same time acknowledging the diversity of the underlying cognitive structures of its members. The problem is that the psychological account is not able to engage with the fundamentally social aspect of conceptual engineering in a way in which the semantic and representationalist accounts are able to; more needs to be said. But what more is said depends on whether we move in the direction of the semantic account of concepts or in the direction of the representationalist account of concepts. So let us look at each in turn.

The Semantic Account of Concepts

According to the semantic account of concepts, concepts are semantic meanings determined by conventional principles of use. This account of concepts is increasingly promoted as the one best placed to make sense of the methodology of conceptual engineering, since according to it, revisionary projects can be understood as attempts to revise the meanings of our words by changing the principles that govern their use, where these principles are conventional and hence within our collective control. Amie Thomasson provides perhaps the clearest example of the semantic account of concepts in this context, developed from within her pragmatic, functional approach to language more generally.²⁰ She says:

‘Dual Content Semantics’. However, for this reason, dual content theories are essentially versions of either the semantic account or the representationalist account, depending on how shared referential content is said to be determined, and are therefore not psychological accounts in the sense intended in the present chapter.

²⁰ See Thomasson, ‘A Pragmatic Method’, ‘Conceptual Engineering’ and ‘How Should We Think’. For other functional approaches to concepts, see Nado, ‘Conceptual Engineering’; Koslow, ‘Meaning Change’; and Queloz, ‘Function-Based Conceptual Engineering’. For accounts that emphasize the importance of considering the function of concepts without endorsing a semantic account of concepts per se, see Haslanger, ‘Gender and Race’; and Brigandt, ‘The Epistemic Goal’.

If we are to think of words in a way that is consistent with historical linguistics, and a way that might be useful to understanding conceptual engineering, we must think of words as entities with a history, as things which can be created, and which can change.²¹

And she goes on to explain:

Thinking of word meanings as a matter of *social norms regarding how the relevant terms are to be used* (including entry rules that may appeal to the world, and exit rules that may license linguistic or non-linguistic behavior) enables us to understand how we might create linguistic change.²²

On this account, then, conceptual engineering aims to change the meaning of a word by changing ‘the total inferential profile of the term, changing its norms of use’.²³ Thus the success of the cited examples at the beginning of the chapter would consist in, for example, the term ‘woman’ coming to license an inference to ‘systematically subordinated along some dimension’, the term ‘belief’ no longer licensing an inference to ‘internal cognitive state’, the astronomical body Pluto no longer licensing an application of the term ‘planet’ but instead licensing an application of the term ‘dwarf planet’, an utterance of ‘X and Y are married’ no longer licensing an inference to ‘X and Y are a heterosexual couple’, and so on.

Because advocates of the semantic account of concepts reject the claim that there are concepts over and above semantic meanings determined by conventional principles of use, they often use the terms ‘concept’ and ‘meaning’ interchangeably. For example, Thomasson maintains that the proper target of conceptual engineering is words and explains that ‘in thinking about words and how to engineer them, we are thinking about concepts’.²⁴ Similarly, Haslanger’s question is about ‘how we might usefully revise what we mean for certain theoretical and political purposes’,²⁵ and she speaks of ‘what our terms mean (or the content

²¹ Thomasson, ‘Conceptual Engineering’, 12.

²² Thomasson, ‘Conceptual Engineering’, 17, original emphasis.

²³ Thomasson, ‘Conceptual Engineering’, 16.

²⁴ Thomasson, ‘Conceptual Engineering’, 10.

²⁵ Haslanger, ‘Gender and Race’, 34.

of our concepts)’²⁶. Moreover, which meanings are the legitimate targets of conceptual engineering is based on our collective judgements about how well they fulfil their ‘functions’, where these functions are in turn assessed in terms of whether they are functions that we, collectively, think should be served at all.²⁷

As Thomasson makes clear, the semantic account of concepts has historical roots in the pragmatist (and neo-pragmatist) tradition.²⁸ Consider the early pragmatist account of thought and language provided by Rudolf Carnap, for example. On Carnap’s account, there are no concepts over and above linguistic forms, and linguistic forms are determined by us when we lay down rules for application. Thus, we can determine what our words mean, and hence, given that there are no concepts over and above linguistic forms, we can determine our concepts. We decide on a linguistic framework, and hence we decide on a conceptual framework. Moreover, we do so for practical purposes. Carnap says:

To be sure, we have to face at this point an important question; but it is a practical, not a theoretical question; it is the question of whether or not to accept the new linguistic forms. The acceptance cannot be judged as being either true or false because it is not an assertion. It can only be judged as being more or less expedient, fruitful, conducive to the aim for which the language is intended. Judgements of this kind supply the motivation for the decision of accepting or rejecting the framework.²⁹

As is clear from this passage, one key element of the pragmatist approach is the claim that the function of a concept is not fundamentally representational. The purpose of concepts is not to represent mind-independent facts but to serve our practical goals, where concepts are the

²⁶ Haslanger, ‘Going On’, 230. Haslanger’s approach is difficult to classify because it has elements of a semantic account and elements of a representationalist account. This is perhaps because, by her own admission, she was always ‘much less interested in what our terms mean (or the content of our concepts) than in what in the world is worth talking about’ (ibid.).

²⁷ See, e.g., Thomasson, ‘How Should We Think?’; and Haslanger, ‘Gender and Race’.

²⁸ See particularly Carnap, ‘Empiricism, Semantics and Ontology’ and *Logical Foundations*; Rorty, *Philosophy and the Mirror of Nature*; Brandom, *Making It Explicit*; and Price, *Naturalism without Mirrors*.

²⁹ Carnap, ‘Empiricism, Semantics and Ontology’, 31–32.

kinds of things that can be fashioned at will in order better to serve those goals. This key element is expressed by Quine as follows:

We can improve our conceptual scheme, our philosophy, bit by bit while continuing to depend on it for support; but we cannot detach ourselves from it and compare it objectively with an unconceptualized reality. Hence it is meaningless, I suggest, to inquire into the absolute correctness of a conceptual scheme as a mirror of reality. Our standard for appraising basic changes of conceptual scheme must be, not a realistic standard of correspondence to reality, but a pragmatic standard. Concepts are language, and the purpose of concepts and of language is efficacy in communication and in prediction. Such is the ultimate duty of language, science, and philosophy, and it is in relation to that duty that a conceptual scheme has finally to be appraised.³⁰

The rejection of representationalism and the claim that a conceptual scheme is not a ‘mirror of reality’ is also evident in Nado’s recent suggestion that we think of conceptual engineering as revising our classification procedures. She says:

I propose that we characterize engineers as producing ‘tools’ for classifying – tools which have certain desirable effects when used. These effects may include encouraging certain types of inference, speech, or behavior; facilitating prediction and explanation; simplifying theory; and so forth.³¹

Indeed, despite her suggestion that this allows us to avoid metasemantic considerations, the proposal is the very embodiment of a pragmatist metasemantic framework. After all, as Williams notes when explaining Rorty’s position, it has long been acknowledged by pragmatists that ‘language is better understood as a set of tools rather than as the mirror of nature.’³²

The semantic account bears a passing resemblance to the psychological account in the sense that both look to inferential relations (or the like) as the determinants of concepts. But the semantic account is couched in social rather than individual terms, and as such it engages

³⁰ Quine, *From a Logical Point of View*, 79.

³¹ Nado, ‘Classification Procedures’, 12.

³² Williams, ‘Introduction’, xvi.

with the fundamentally social aspect of conceptual engineering in a way in which the purely psychological account is unable to. Understanding meanings (concepts) as determined by social norms yields an account of meaning as stable across a range of divergent individual uses, and thereby accommodates individual error. This is because the social norms that determine the semantic meaning of a word on the one hand can diverge from any given individual's attempts to use the word in accordance with those norms on the other. The semantic account of concepts is often framed as 'externalist' precisely because it allows this kind of divergence between social norms and individual use, grounded in linguistic deference amongst the members of the relevant linguistic community.³³ I return to this issue below, as the kind of 'externalism' that is consistent with the semantic account of concepts is fundamentally different from the kind of 'externalism' allowed for by the representationalist account of concepts; this is not adequately acknowledged in the literature but it marks a fundamental difference between the two accounts.

In relation to the question of how to characterize the cited examples of conceptual engineering, the semantic account of concepts, with its historical connections with pragmatism, entails that all of the examples are cases of meaning revision and hence of concept revision. To be sure, there is a distinction within the semantic account between what Carnap calls 'internal questions', which relate to inquiry from within a given linguistic or conceptual framework, and pragmatic questions about which linguistic or conceptual framework to adopt. This means that the semantic account is able to distinguish between revisionary projects and non-revisionary projects (between conceptual engineering and conceptual analysis, as one might think of it). But any change to the inferential profile of a term – any change to its norms of use – will amount to a revisionary change and hence will

³³ On linguistic deference, see Putnam, 'Meaning and Reference'; Burge, 'Individualism and the Mental'.

count as an instance of conceptual engineering. This is where the disagreement between the semantic account and the representationalist account lies, and hence where the disagreement over the characterization of the cases lies. The semantic account of concepts allows for a liberal understanding of concept revision because semantic revision entails concept revision; the representationalist account of concepts, by contrast, is more conservative about what counts as concept revision precisely because it is more liberal about what semantic revisions can be made within an existing conceptual framework.

Note that the representationalist account need not deny the existence of semantic meanings determined by conventional principles of use, nor need the representationalist account deny that semantic meanings in certain cases ought to be changed, or indeed would be changed by the successful implementation of a project in conceptual engineering. What the representationalist denies is that conventional principles of use determine our concepts in all cases. According to the representationalist not *all* of the cited examples of conceptual engineering involve revisions to concepts (even if they all involve semantic revision). In addition to acknowledging the psychologically real cognitive structures of individuals emphasized by the psychological account of concepts, and the semantic meaning of terms emphasized by the semantic account of concepts, the representationalist account maintains that there are concepts understood as publicly accessible components of thought which are determined ultimately not by use but by direct relations between individuals and the world. And the reason the representationalist account acknowledges concepts understood in this way is because it is only by doing so that one can accommodate a different kind of ‘fruitful’ inquiry that the semantic account does not recognize. To see why, we will need to look at the representationalist account of concepts.

The Representationalist Account of Concepts

According to the representationalist account of concepts, concepts are publicly accessible components of thought, determined ultimately not by use but by direct relations between individuals and the world. The account is most clearly articulated by Tyler Burge and labelled as ‘anti-individualism’.³⁴ There are three key related elements that differentiate the representationalist account of concepts from the semantic account. First, according to the representationalist account, concepts are representational in the sense that they represent a reality that exists independently of our linguistic or conceptual frameworks. Second, concepts are not necessarily determined by use; they are not ultimately determined by social norms. If they were, they could not be representational in the sense just described. Third, as a result, the correct application conditions of concepts and the correct inferential (logical) relations between them can diverge not only from the way in which individuals apply those concepts and make judgements using them, but from the way in which the community as a whole applies them and makes judgements using them. This is the sense in which the ‘externalism’ that is consistent with the semantic account of concepts, understood in terms of social deference, is different from the ‘externalism’ allowed for by the representationalist account of concepts. The representationalist account, but not the semantic account, allows for communal error (relative to the facts) in addition to individual error (relative to linguistic social norms). On the representationalist account, it is possible for a given concept to be widely possessed in the community and yet for no one to grasp that concept fully.

The origins of the distinction between complete and incomplete grasp of a concept understood in this way can be traced back to Frege’s account of *Sinn* (sense) and his work on

³⁴ See for example Burge, ‘Individualism and the Mental’, ‘Intellectual Norms’, and *Origins of Objectivity*. Despite their common conflation, Burge’s view is distinct from Kripke’s (see, e.g., *Naming and Necessity*) and from Putnam’s (e.g., in ‘Meaning and Reference’). Moreover, again despite their common conflation, the same considerations do not apply to proper names as to concepts.

the concept of number in *Die Grundlagen der Arithmetik*. As Burge says, ‘Frege holds that even the most expert users may not fully understand the sense, communal or idiolectic, of an expression’, noting that ‘[t]he view that the most competent and expert users may lack full understanding is at least somewhat unusual.’³⁵ The view is clearly inconsistent with the claim, central to the semantic account of concepts, that concepts are semantic meanings determined by conventional principles of use and hence governed by social norms.

Frege did not intend his notion of sense to be equated with semantic meaning. In this respect, as Burge says:

[Frege’s] view runs contrary to most thinking about ordinary linguistic meaning. It is sometimes allowed in the literature that the idiolectic meaning of an individual’s expression may depend on meanings of expressions used by others on whom an individual relies. But it is rarely allowed, or at least rarely maintained, that it is possible that no one in a community fully understands the *meanings* of their expressions.³⁶

Indeed, Frege’s primary concern was not with semantic meaning at all, but with thought and knowledge. According to Frege, although thoughts may be expressed and apprehended through language, they are ontologically and conceptually independent of language and of human agents. Moreover, his understanding of thought is premised on a rejection of psychologism, which focuses exclusively – and erroneously, he thinks – on the specific workings of individual minds. For example, he says:

³⁵ Burge, ‘Living Wages of *Sinn*’, 60. Kripke endorses Frege’s insight: see, e.g., *Naming and Necessity*, 119. Kripke is able to identify concepts with semantic meanings while embracing a representationalist account of concepts by denying that semantic meaning is determined by conventional principles of use. Cappelen also endorses Frege’s insight (see, e.g., *Fixing Language*, 63), but fails to recognize that it is an insight into the nature of concepts and does not apply to semantic meaning if a change in conventional principles of use entails a change in semantic meaning. Cappelen is not the only one to make this mistake; see, e.g., Nado, ‘Conceptual Engineering’.

³⁶ Burge, ‘Living Wages of *Sinn*’, 60, original emphasis. As Burge notes (see, e.g., ‘*Sinning against Frege*’, 213; ‘Frege on Sense’), the differences between semantic meaning and sense are most obvious in the case of indexicals and proper names, but the distinction is fundamental to Frege’s overall outlook.

Neither logic nor mathematics has the task of investigating souls and the contents of consciousness whose bearer is a single person. Perhaps their task could be represented rather as the investigation of the mind, of the mind not of minds.³⁷

The reason for considering ‘the mind’ rather than individual minds is precisely to abstract away from individual idiosyncrasies and errors and to gain insight into the logical relations among thoughts understood as abstract representational ideals.

But this does not mean that Frege’s view was divorced from an interest in human cognition and psychology. On the contrary, as Burge says:

Frege ... postulated that thought ... is a psychological kind that grounds powerful explanations. He thought that one could find explanatorily important psychological kinds by reference to *cognitive* aspects of psychological kinds. He thought that normative issues regarding truth-conditions, judgement, knowledge, and formally valid inference could be used to help isolate significant psychological kinds.³⁸

Further, Burge goes on to say:

Frege’s postulation has been empirically vindicated. Powerful explanations in semantics, psycho-linguistics, and cognitive psychology are grounded in psychological kinds that are isolated by his conception of sense and thought content.³⁹

The vindication of Frege’s postulation in semantics, psycho-linguistics and cognitive psychology runs contrary to the overwhelming resistance to his views within philosophy of language, where resistance is typically motivated by a rejection of Frege’s avowed Platonism about senses. However, the representationalist account of concepts does not imply that there are Fregean senses in the way that Frege proposed, and one can reject the Platonist aspect of his view while nonetheless recognizing the explanatory significance of senses. This is in fact the position that Burge maintains and that informs his anti-individualist position. He says:

³⁷ Frege, ‘The Thought’, 308.

³⁸ Burge, ‘Living Wages of *Sinn*’, 64–65.

³⁹ Burge ‘Living Wages of *Sinn*’, 65.

I assume that there is a concept *sense*, and that there are senses. I do not assume that everything that Frege thought about senses is true. I impute mistakes to the conception that he associates with his concept. I take senses to ground certain explanations that he gave the concept a role in.⁴⁰

Thus, in line with Frege's general claim that 'the most expert users may not fully understand the sense, communal or idiolectic, of an expression', Burge maintains that Frege did not fully understand the sense of the expression 'sense'.

There are at least three distinct ways in which individuals may fail to understand their concepts completely. First, the individual may not be able to articulate a correct explication of her concept even though her applications of the concept are correct. Thus, she may be competent in identifying chairs and have an unconscious explication of the concept CHAIR in mind, but need to reflect on examples and 'try out' definitions in order to make her unconscious explication conscious. Second, the individual may have an incomplete understanding that cannot be corrected by reflection and instead requires correction by someone else who understands the concept completely. This is the case with Alf, who possesses the concept ARTHRITIS but requires correction from his doctor in order to understand that arthritis cannot occur outside the joints.⁴¹ Third, the individual may have an incomplete understanding that cannot be corrected either by reflection or by anyone else, and instead requires further collective inquiry. This third type of case can be recognized only by the representationalist account of concepts, and it is the type that concerns Frege when he searches for an explication of the concept NUMBER.

In relation to the question of how to characterize the cited examples of conceptual engineering, the representationalist account of concepts, with its historical connections with rationalism and anti-individualism, entails that many of the examples are, just like Frege's

⁴⁰ Burge, 'Living wages of *Sinn*', 40.

⁴¹ The example is from Burge, 'Individualism and the Mental'.

example of NUMBER, cases of meaning revision but not of concept revision. For example, the proposal to extend the traditional understanding of belief can be understood, in effect, as the proposal of a new theory about the nature of belief. Similarly, the proposal to reconceive the notion of truth can be understood, in effect, as the proposal of a new theory about the nature of truth. But while these proposals would involve changes to the social norms surrounding the use of the terms ‘belief’ and ‘truth’, they would not, according to the representationalist account of concepts, involve a change to the concept BELIEF or the concept TRUTH.⁴²

On the representationalist account of concepts, concepts are normative representational ideals. Concepts understood in this way cannot be fashioned at will, because although concept possession is not independent of an individual thinker’s cognitive competencies, it is nonetheless not fully determined by those competencies.

Conclusion

In the preface to *Fixing Language*, Cappelen writes:

This book ... is an attempt to draw attention to a tradition in twentieth- and twenty-first-century philosophy that isn’t sufficiently recognised as a unified tradition. Roughly, there’s a pretty straight intellectual line from Frege (e.g. of the *Begriffsschrift*) and Carnap, on the one hand, to a cluster of contemporary work that isn’t typically seen as closely related: much work on gender and race, revisionism about truth, revisionists about moral language, and revisionists in metaphysics and philosophy of mind.⁴³

By contrast, I have emphasized the differences between the rationalist intellectual tradition of Frege on the one hand and the pragmatist intellectual tradition of Carnap on the other. Once these differences are recognized, it becomes clear that there is not one single intellectual line from Frege and Carnap on the one hand to the cluster of contemporary work in conceptual

⁴² See Sawyer, ‘The Importance of Concepts’, ‘Talk and Thought’ and ‘Truth and Objectivity’. For the claim that the representationalist account of concepts need not think of all cases in this way, see Sawyer, ‘Concept Pluralism’ and ‘Kinds of Kinds’.

⁴³ Cappelen, *Fixing Language*, ix.

engineering on the other, but two distinct intellectual lines and two distinct understandings of the allegedly revisionary projects, each underwritten by a fundamentally different understanding of the nature of concepts and the nature of thought.

The first, rooted in Frege's rationalism and developed in Burge's anti-individualism, does not regard the cited examples as necessarily involving revisions to our concepts because it sees at least some concepts as determined not by use but by direct relations between individuals and the aspects of the world that those concepts represent. In this tradition, what those concepts represent is aspects of the world that perhaps none of us yet fully understand, and the aim of inquiry is at least sometimes to acquire a better understanding of the relevant aspects of the world from within our existing conceptual practice. This will involve correcting the reflective understanding we have of our existing concepts, which may lead to revising the social norms surrounding our linguistic practice. The second, rooted in Carnap's pragmatism, regards all the cited examples as involving conceptual revision because it sees concepts as nothing more than semantic meanings determined by conventional principles of use, and hence sees the goal of all inquiry either as a discovery about our existing conceptual and linguistic practice or as a proposal to change our existing conceptual and linguistic practice in order better to serve our practical goals. These two understandings of the nature of concepts and the nature of thought are inconsistent, and hence, when characterizing conceptual engineering, one must declare one's allegiance to one of the two traditions. Ultimately, disagreements about the nature, target and possible implementation of conceptual engineering are grounded in the more fundamental disagreement about the nature of concepts.

In virtue of failing to differentiate the two traditions, Cappelen's account of conceptual engineering suffers from inconsistencies. He claims that amelioration 'always

involves *the extension and intension of a predicate changing over time*,⁴⁴ which, together with the exclusive focus on meanings, fits with the semantic account of concepts that derives from the pragmatist tradition of Carnap; but he also emphasizes ‘externalist’ constraints on meaning that go beyond constraints to adhere to conventional social norms, and hence make sense only when understood as externalist constraints on *concepts* understood from within the rationalist tradition of Frege, according to which concepts are not determined by social conventions. Moreover, while the externalist constraints give rise to the kinds of questions Cappelen raises about the very possibility of revision, they give rise only to questions about revisions to *concepts*, which is not problematic within a rationalist perspective which does not see conceptual engineering as necessarily involving concept revision.⁴⁵

I end with a cautionary note. Because of the recent interest in conceptual engineering, an emerging theme in the literature is that the explanatory desiderata for a theory of concepts should include whether it allows for concept revision, and hence whether it renders projects in conceptual engineering implementable and distinct from projects in conceptual analysis.⁴⁶ But to think that these are desiderata for a *theory of concepts* is to get things back to front. As I said at the outset, there is widespread agreement over the significance of the cited examples of conceptual engineering in terms of furthering the practical goals of social justice and intellectual inquiry, and this is so despite the fundamental disagreement over how to characterize the cases. How to characterize the cases is irrelevant to whether or not we make progress in terms of social justice and intellectual inquiry. On this I agree with Haslanger’s optimistic position rather than Cappelen’s pessimistic one.⁴⁷ The practical aspirations can be

⁴⁴ Cappelen, 62, original emphasis.

⁴⁵ See Sawyer, ‘The Role of Concepts’, and ‘Truth and Objectivity’.

⁴⁶ See, e.g., Isaac, ‘Broad Spectrum’; Koch, ‘Engineering What’; Jorem and Löhr, ‘Inferentialist Conceptual Engineering’; and Thomasson, ‘Conceptual Engineering’ and ‘How Should We Think’.

⁴⁷ See Haslanger, ‘Going On’.

met independently of meeting the theoretical aspirations concerning the characterization of the cases. The correct characterization of the cases will simply follow from the nature of concepts, and the only relevant explanatory desideratum for a theory of concepts is to explain how representation is possible – that is, to explain how we can think and talk about the world at all. On this point, the evidence suggests that only the representationalist account of concepts can explain the very possibility of representation.⁴⁸

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⁴⁸ See Burge, *Origins of Objectivity*. I have argued this point elsewhere; see Sawyer, ‘There Is No Viable Notion’ and ‘The Importance of Concepts’.

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