



Sameness of Subject Matter in Conceptual Amelioration

*Uniformidade de Assunto nas Melhorias Conceituais*Cyrill Mamin¹

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ABSTRACT

Projects of conceptual engineering that aim to ameliorate concepts face the challenge of topic continuity. In some instances of conceptual amelioration, a particularly strong kind of continuity is needed: Sameness of subject matter. This paper examines how sameness of subject matter can be maintained in conceptual amelioration. It starts from a view that sees concepts as ways of thinking, implying that to change a concept is to replace it. At first sight, this view seems incompatible with maintaining sameness of subject matter in conceptual amelioration. Accordingly, Sally Haslanger and Sarah Sawyer have suggested accounts of conceptual amelioration that do without replacing concepts. On their accounts, the persisting concept is supposed to guarantee sameness of subject matter. However, both accounts face problems. Therefore, I suggest a different account to maintain sameness subject matter inspired by Bartels's *chains of meaning* theory. On this account, sameness of subject matter is guaranteed through a common referent of the pre- and the post-amelioration concept, established from the post-amelioration perspective. The account allows for sameness of subject matter even though concepts are replaced in the ameliorative process.

Keywords: conceptual engineering. conceptual amelioration. sameness of subject matter. topic continuity. chains of meaning.

RESUMO

Os projetos de engenharia conceitual que visam melhorar os conceitos enfrentam o desafio da continuidade de tópico. Em alguns casos de melhoria conceitual, é necessário um tipo de continuidade particularmente forte: A uniformidade do assunto. Este artigo examina como a uniformidade do assunto pode ser mantida na melhoria conceitual. Ele parte de uma visão que considera os conceitos como formas de pensar, o que implica que mudar um conceito é substituí-lo. À primeira vista, essa visão parece incompatível com a manutenção da uniformidade de assunto

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na melhoria conceitual. Do mesmo modo, Sally Haslanger e Sarah Sawyer sugeriram relatos de aprimoramento conceitual que dispensam a substituição de conceitos. Segundo elas, o conceito persistente deve garantir a uniformidade do assunto. Entretanto, ambos os modelos apresentam problemas. Portanto, sugiro uma explicação diferente para manter a uniformidade do assunto, inspirada na teoria das cadeias de significado de Bartels. Nessa visão, a uniformidade do assunto é garantida por meio de um referente comum do conceito pré e pós-melhoria, estabelecido a partir da perspectiva pós-melhoria. A proposta permite a uniformidade do assunto mesmo que os conceitos sejam substituídos no processo de melhoria.

Palavras-chave: engenharia conceitual. melhoria conceitual. uniformidade do assunto. continuidade do tópico. cadeias de significado.

INTRODUCTION

Concepts structure the way we think and behave. For example, we distinguish between items that do or do not fall under a given concept. If our concepts are defective (epistemically or practically), the way we make such distinctions is defective, too. Therefore, we can sometimes improve our thinking and behaving by ameliorating our concepts.

A prominent objection against conceptual amelioration is that it *changes the subject* when it should not do so. This objection originates in Strawson's critique of Carnapian explication. In a well-known passage, Strawson says:

to offer formal explanations of key terms of scientific theories to one who seeks philosophical illumination of essential concepts of nonscientific discourse, is to do something utterly irrelevant [...] like offering a text-book on physiology to someone who says (with a sigh) that he wished he understood the workings of the human heart. (Strawson 1999, 504)

To take Carnap's classic example, think about an explication that replaces the concept FISH (including whales) with the concept PISCIS (excluding them). If A expresses FISH and B expresses PISCIS with the same term "fish", the worry is that A and B talk about something different—the subject has changed.

Importantly, it is not something problematic *per se* to change the subject. On the contrary, explication can be seen as an attempt to replace a concept that creates problems with a better concept which avoids them (Brun 2016, 1219; see

also Nado 2021, 6). In order to avoid problems, the subject occasionally needs to be changed.

However, there are *some* important cases of conceptual amelioration in which we wish to keep *sameness of subject matter* (SSM cases, for short). The Strawsonian challenge is relevant only for SSM cases. In these cases, it is both important and unclear whether the pre- and the post-amelioration concept have the same referent. See Strawson's example again: *If* we are interested in what the pre-engineering concept HEART referred to, whereas it is doubtful whether HEART* still refers to the same thing, it seems problematic to replace HEART with HEART*.¹ Therefore, Strawson's heart example is an SSM case. In what follows, I will focus on SSM cases, thereby avoiding the false claim that changing the subject is problematic in every instance of conceptual engineering.

For SSM cases in the social domain, Sally Haslanger's concerns about changing the subject in "revisionary projects" are relevant:

In asking what *race* is, or what *gender* is, our initial questions are expressed in *everyday* vocabularies of race and gender, so how can we meaningfully answer these questions without owing obedience to the everyday concepts? [...]

it isn't entirely clear when a project [...] is no longer even revisionary but simply changes the subject. (Haslanger 2000, 34; see also Cappelen 2018, 98).

To be precise, asking for a certain amount of continuity is not yet to say that the pre- and post-amelioration concepts have the same referent. Nevertheless, in SSM cases, we need continuity in its strongest version, which implies sameness of reference.

For example, consider the concepts expressed by the term "rape": The pre-amelioration concept RAPE excludes rape within marriage from its extension, the post-amelioration concept RAPE* includes it. If the amelioration changed the referent, we would have to say that we are not talking about the same thing as pre-amelioration people were when they used the term "rape". In contrast, if we want to say that we understand better what rape is than our conceptual ancestors did,

¹ The Strawsonian challenge can be framed in different ways, depending on the views one has on meaning and concepts. I will outline my view on concepts in sect. 2. It will become clear why—on this view—concepts are replaced in an amelioration and how different concepts can have the same referent.

we need RAPE and RAPE* to have the same referent (see Sawyer 2018, 144).² How is this possible, given that the extension of the concept has changed?

Accordingly, this is the main question I wish to address: Is there a way to maintain sameness of subject matter in conceptual amelioration, even if one concept is replaced with another? My answer will be affirmative. I will propose an account that takes the extension of the post-amelioration concept to determine the common reference for both the post- and the pre-amelioration concept. The common reference guarantees sameness of subject matter. This account is inspired by Bartels's *chains of meaning* theory (1994, 2008). While it may not be the one-fits-all explanation of what goes on in conceptual engineering, it certainly has the potential to account for sameness of subject matter in the SSM cases of conceptual amelioration.

The paper proceeds as follows: In Sect. 1, I will state my reasons for thinking that conceptual amelioration is an instance of conceptual *replacement*. I will outline the neoclassical view on concepts, suggesting that concepts are ways of thinking (Sect. 1.1). Based on this view, I will argue that concepts are replaced in the amelioration (Sect. 1.2). Also, I will say more about the problem of SSM that seems to arise from the replacement claim in a strong way (Sect. 1.3).

In Sect. 2, I will discuss two views that give up the replacement claim and try to maintain SSM by leaving concepts in place throughout the amelioration: Haslanger thinks that concepts can alter by altering their content (Sect. 2.1). Sawyer claims that concepts stay inert throughout the amelioration (Sect. 2.2). I will raise some objections against both views. However, Sawyer's account has some important parallels with the account to be outlined in the remainder.

In Sect. 3, I will outline the alternative suggestion to solve the SSM problem. Starting again from the view that concepts are replaced, I will explain Bartels's *chains of meaning* account (Sect. 3.1) and adapt it to the SSM cases of conceptual amelioration (Sect. 3.2).

Finally, I will contrast this suggestion with Nado's *functionalist* account (Sect. 4.1) and Ball's temporal externalist account (Sect. 4.2).

1. CONCEPTUAL AMELIORATION AND THE REPLACEMENT CLAIM

² Sawyer (2018) frames the rape example differently, claiming that the concept RAPE remains unchanged in the amelioration, whereas the meaning of the term "rape" changes (see Sect. 3.2).

In this section, my main claim is that concepts are replaced in conceptual amelioration, not altered. First, I will state a view on concepts to which I subscribe. According to this view, concepts are *ways of thinking*. Second, I will argue that if concepts are ways of thinking, they are *replaced* in the ameliorative process.

1.1 Concepts: the neoclassical theory

According to the “neoclassical theory” of concepts (Margolis & Laurence 1999, 52), concepts are individuated at the level of Fregean Senses, “by considerations of cognitive significance” (Peacocke 1992, 3).³ Therefore, what concepts are “can be explained only by reference to the operations and capacities of rational subjects” (Glock 2010, 117). Subjects who possess a concept have related discriminatory abilities, e.g. that one is willing to judge that *a* is *F* if certain conditions are met (Peacocke 2005, 173).

A helpful way to relate concepts to cognitive significance and abilities is to describe them as *ways of thinking* about something (see Evans 1983, §§ 1.4-1.5). Ways of thinking are different from subjective ideas: Seeing concepts as ways of thinking implies that concepts can be *shared* between individuals (see e.g. Glock 2009).⁴ Accordingly, EQUILATERAL TRIANGLE and EQUIANGULAR TRIANGLE are two different concepts. On the one hand, each of them can be shared between individuals; they are not merely private ideas related to triangles. On the other hand, they are different from each other regarding cognitive significance, even if both concepts pick out the same geometrical figures (i.e. have the same extension).

The difference between concepts and terms (also named ‘words’, ‘expressions’ or ‘concept-words’) is sometimes blurred. As characterised, concepts belong to thought (see also Sawyer 2020a). They can be *expressed* with terms. To speak about terms, I will use quotation marks. To speak about concepts, I will use capital

³ The difference with the “classical” theory is that descriptivism is not entailed: On the neoclassical view, concept possession does not depend on the subject knowing necessary and sufficient conditions for applying the concept-word.

⁴ Some have rejected the individuation of concepts at the level of Fregean Senses, and therefore the identification of concepts with ways of thinking, on the grounds that it is too subjective (see e.g. Sainsbury/Tye 2012, 24). Carefully differentiating Senses/ways of thinking from private ideas—along the lines of Frege’s “Third realm” between ideas and referents—can refute such objections.

letters. Accordingly, “marriage” expresses MARRIAGE. However, the same term can express different concepts, and different terms can express the same concept. For example, it may be that “marriage” expressed MARRIAGE in earlier times (i.e. a concept that did *not* include same-sex couples in its extension), whereas “marriage” expresses MARRIAGE* nowadays (i.e. a concept that *does* include same-sex couples in its extension).

Some theorists think that “conceptual” engineering is operating on terms, not on concepts (e.g. Cappelen 2018, Sawyer 2018, 2020a). In contrast, my view is that at least one sort of conceptual engineering operates on concepts. This view follows from the view on concepts as ways of thinking that I have outlined above: If it makes sense to say that we can (and often should) change our ways of thinking, this implies that we can or should replace our concepts. It seems quite uncontroversial that we sometimes change our ways of thinking. Changing ways of thinking is different from changing terms’ meanings. The former can imply the latter, but it does not have to. For example, if we just use different terms to express the new concept, not any term’s meaning needs to change.

My claim is not that all that goes under the label “conceptual engineering” is operating on concepts, but only that there is an important category of conceptual engineering that is *literally* conceptual engineering in that it operates on ways of thinking. We could call this conceptual engineering or amelioration in the *literal* sense’. Wherever I will use “conceptual engineering” or “conceptual amelioration” without further qualification, I will refer to it in this literal sense.

Three key elements of our theory of concepts need to be distinguished which will be particularly important for my account on sameness of subject matter: *intension*, *extension* and *reference*. My understanding of these terms corresponds to the neoclassical theory of concepts. However, it is rather unusual concerning the distinction between extension and reference. This is how the terms are to be understood:

Intension applies to *terms*.⁵ According to the neoclassical theory, the intension of a term is the way of thinking, i.e. the concept it expresses. For example, the terms “equilateral triangle” and “equiangular triangle” have different intensions

⁵ Sentences have intensions as well, the intension of a sentence is the thought or proposition the sentence expresses.

since they express different ways of thinking/concepts. the intension of a term is “the concept by means of which the object is picked out” (Blackburn 2016).

Extension applies to terms as well. The extension of a term is the object the term refers to, so the object the intension/concept picks out. Therefore, *Extension* also applies to concepts directly, and in the remainder, I will mostly speak of extensions of concepts. The extension of a concept is the object (or objects) the concept picks out.

The *referent* of a concept is normally the same as its extension. E.g., if MARRIAGE *refers* exclusively to heterosexual couples, we can also say that same-sex couples are not part of the *extension* of MARRIAGE. In this way, “reference” and “extension” are normally used as synonyms. However, I will make a difference between reference and extension.⁶ I said that the extension of a concept is what the concept picks out. More precisely, the extension is what a concept picks out *when applied by a subject (or subjects sharing the concept)*. This clarification is in line with the view on concepts I have outlined: To repeat, concepts are individuated at the level of cognitive significance and therefore related to capacities of subjects, namely to their discriminatory abilities.

Following the subject-relative understanding of concept-extension, the distinction between extension and reference is made as follows: What a concept *refers to* is often grasped only partially by the subjects applying the concept. Accordingly, the extension of a concept, i.e. what it picks out when applied by a subject, may differ from its reference. Often, the extension may be incomplete, so that not every item the concept refers to is also part of its extension. Conversely, items may be picked out of which it will turn out that the concept does not refer to.

Based on the previous remarks, I will subdivide “referent” into “ideal referent” (cf. Putnam 1975) and “approximative referent” (for short: “I-referent” and “A-referent”). The extension of our present concept is the best approximation we have to the I-referent, but it is possible that we (still) don’t fully grasp the I-referent in applying our concept. The extensions of our present concepts—or the “post-amelioration concepts in the case of conceptual amelioration—are *A-referents*.

⁶ The distinction between *reference* and *extension* mainly originates in Bunge (1974). It is further motivated by considerations in Putnam (1975). Bartels’s account (see Sect. 4) is inspired by Bunge and Putnam.

So much for my views on concepts. These views will become clearer when applied to conceptual amelioration. To start with (in Sect. 2.2), they will lead to the claim that conceptual ameliorations *replace* concepts.

1.2 The replacement claim

Before I will argue for the claim that concepts are replaced in conceptual ameliorations, a clarification regarding *change* is in order.

“Things change.” Note the ambiguity of this sentence. It can either mean that things are *altered* or that they are *replaced*. Many things change in the sense of being altered: E.g. sheets of paper change their colour (by turning yellow after some years), glaciers change their expansion (by melting), people change by getting older. As the examples make clear: If *x* changes in the sense of *alter*, *x* is what persists throughout the process of change. The different states we ascribe to *x* due to the alteration are *x*’s *determinations*.⁷ The determinations do not alter, the persisting object is it that alters: in having different determinations through time. Therefore, the determinations are *replaced*. E.g., the melting glacier is an altering object. The glacier is undergoing different determinations, namely, states of shrinking. During the alteration, one determination follows the other.

Are concepts like the things altered (e.g. the glacier), or are they like the determinations, i.e. the states of another *x*’s alteration (e.g. the different states of melting)? The answer to this question depends on what concepts are.

The neoclassical view on concepts (as outlined in sect. 2.1) entails that in conceptual engineering or amelioration, concepts are not the things altered but the determinations of an altering “thing”: of thinking. Therefore, they are *replaced* in the ameliorative process. This will become clear through the following argument:

1. To engineer or ameliorate a concept in the literal sense is to change a way of thinking about a referent.
2. To change a way of thinking about a referent is to replace one concept with another.

⁷ The relation between altering subjects and replaced determinations that I describe here is inspired by Kant, *Critique of Pure Reason*, B 230/31 (1998).

Therefore, to engineer or ameliorate a concept in the literal sense is to replace one concept with another.

ad (1). An example shall support the first premise: At least in some societies, the concept MARRIAGE has been replaced.⁸ To simplify, take two points in time and assume that at t1 we have a single shared concept: MARRIAGE; and that at t2 we have a different, single shared concept: MARRIAGE*. According to their concept, people at t1 think that marriage is necessarily a relationship between a man and a woman. At t2, people think that a married couple could also be two women or two men.

In the example above, people at t1 and t2 have *different ways of thinking* about marriage. To see this, remember what ways of thinking are. First, they relate to discriminatory practices: While people at t1 exclude same-sex couples from the extension of the concept MARRIAGE, people at t2 include them in the extension of the concept MARRIAGE*. Second, remember that ways of thinking relate to cognitive significance: e.g., the concepts EQUILATERAL TRIANGLE and EQUIANGULAR TRIANGLE are different, even if they have the same referent. Accordingly, conceptual engineering or amelioration is the practice of purposefully changing ways of thinking.

The marriage example has a controversial aspect. Claiming that MARRIAGE and MARRIAGE* have the same referent (marriage) implies that marriage has an “existence” (e.g. as a social kind) independently of our different marriage concepts. Indeed, I will assume this by referring to the marriage example. The reason is that this paper is about sameness of subject matter, whereas subject matter equals reference (as will become clear in Sect. 4). If it turned out that the controversial claim about marriage is wrong, this would show that marriage is not a case in which we can ask for sameness of subject matter. Sceptical readers should replace the example with one they find more convincing as a case of sameness of subject matter (e.g. ‘rape’, see Sect. 1 and 5.1).

ad (2). Why is to change a way of thinking to replace one concept with another? To answer this question, we have to remember the difference between the altering thing and its determinations, as outlined above. A way of thinking is a determination of thinking: The way we think is how our thinking is determined. So,

⁸ The marriage example is often referred to in the conceptual engineering literature, see e.g. Capelen (2018), Richard (2019), Haslanger (2020b).

on the present view, concepts determine how we think (e.g. they determine the couples to which we are ready to ascribe the predicate “can be married”). Accordingly, what is *altered* in a conceptual amelioration is *thinking*; the states thinking goes through in its alteration are the *ways of thinking*, i.e. the concepts. Therefore, concepts are what is *replaced* in the ameliorative process.

So far, I have argued that concepts are replaced in conceptual ameliorations. Next, I will turn to the worry about sameness of subject matter. I will propose a way to maintain sameness of subject matter even if concepts are replaced.

1.3 Sameness of subject matter

The worry about sameness of subject matter (SSM) seems to be particularly severe for the replacement claim. To illustrate, I will compare two cases of conceptual replacement in which SSM is missing, one unproblematic, the other problematic. The examples are adapted from Sawyer (2018, §§ 2- 3).

First, the unproblematic example: At t₁, the term ‘meat’ meant *food in general*. At t₂, ‘meat’ meant *animal flesh that is eaten as food*. According to the replacement claim, ‘meat’ at t₁ expresses a different concept than ‘meat’ at t₂: The concept FOOD IN GENERAL has been replaced with the concept ANIMAL FLESH THAT IS EATEN AS FOOD.

Now, suppose that a subject from the linguistic community at t₁ (A) and one from t₂ (B) meet and debate over the claim “apples are meat”. (A) and (B) disagree on the truth of this claim. However, their disagreement is merely verbal. It is easily resolved as soon as the usage of different concepts for ‘meat’ is considered. The reason is that SSM is missing: A and B are just talking past each other when they are debating over “apples are meat”. The fact that SSM is missing seems to be unproblematic in this case.

Second, we turn to the “problematic” example: MARRIAGE again (see Sect. 1.2). “marriage” at t₁ expressed the concept MARRIAGE (excluding same-sex marriage), “marriage” at t₂ expresses the concept MARRIAGE* (including same-sex marriage). Now, A and B are debating over the claim “only heterosexual couples can be

married”.⁹ Since A and B express two different concepts with ‘marry’, the debate should be pointless like in the meat case. But this doesn’t seem right: The dispute between A and B over “only heterosexual people can marry” seems to be substantive. How is this possible if A and B express different concepts with ‘marry’?

The marriage example illustrates the difficulty to theoretically account for SSM. In the meat example, replacing the concept seems to lead to a difference in subject matter. In the marriage example, a similar replacement of the concept does not lead to a difference in subject matter. How is this possible?

On some views, the fact that we have no difference of subject matter in cases like the marriage example implies that the replacement claim must be wrong. These views try to account for SSM by leaving the concept in place throughout the amelioration. In the following section, I will discuss two such views. As I will argue, they do not give us any reason to abandon the replacement claim. Therefore, in Sect. 3, I will present an account for maintaining SSM that is compatible with the replacement claim.

2. ANTI-REPLACEMENT ACCOUNTS

2.1 Haslanger: altering concepts

Sally Haslanger’s work on conceptual amelioration is well-known. Her pioneering “analytical approach” to race and gender (Haslanger 2000) has put revisionary projects on the agenda of contemporary philosophy. Recently, Haslanger has turned to a more theoretical reflection on conceptual amelioration (2020a, 2020b). Here, she examines how topic continuity can be maintained throughout an ameliorative project. Haslanger thinks that this cannot be done by replacing concepts. Therefore, her account allows for concepts to stay in place throughout the amelioration.

⁹ “Can” is to be understood in a general sense, not depending on whether someone is allowed to marry under present legislations. Accordingly, B would say that “only heterosexual couples can marry” was false even at t_1 , when only these couples were allowed to marry. This description presupposes a truth related to what marriage is, apart from what a society’s current legislation declares it to be (see Sect. 1.2).

Following Yalcin (2018), Haslanger takes the content of a concept to be a “partition of logical space” On this view, “to possess a concept is to have an ability to cut logical space in a certain way” (Yalcin 2018, 14). Someone who possesses the concept DOG can think and behave in a way that responds to the relevant distinction, e.g. she can distinguish dogs from other animals.¹⁰ From seeing contents of concepts as partitions of logical space, Haslanger derives two different kinds of amelioration:

In *epistemic amelioration*, the content of a given concept stays the same (i.e. the partition of logical space), only the *resolution* or *orientation* of the partition changes. A typical case of a changed resolution is refinement: E.g., we can refine our *conception* of the concept POVERTY by discovering “that poverty takes different forms depending on age, gender, geographical location, culture” (Haslanger 2020b, 240).¹¹ Epistemic amelioration thereby improves our conceptions of concepts without changing the concepts themselves (e.g. what counts as an instance of poverty).

In contrast, *semantic amelioration* alters the content of the concept in order to “change our thought and talk to do better in tracking reality” (Haslanger 2020b, 240). For example, we changed the content of MARRIAGE, so that we got a logical partition that also includes same-sex couples. Haslanger claims that the concept MARRIAGE stays in place throughout the amelioration, even though it is altered in content.

Epistemic and semantic amelioration have in common that they both leave the concept in place. But why should we leave the concept in place at all? In Haslanger’s account, the motivation for leaving a concept in place is the *function* the concept has:

If a concept has a particular function, and the content associated with it fails to carve the world in a way that enables the concept to fulfil its function aptly, then it would be reasonable, I hope, to change the content. (Haslanger 2020b, 250)

¹⁰ Despite Haslanger’s rejection of the Fregean view on concepts, her account on concepts has an important common element with this view: Having abilities related to the relevant distinctions is an important element of concept possession on both views.

¹¹ To explain orientation, Haslanger uses the concept PINK. For a given context certain orientations are approved, e.g. responses and inferences that link PINK to femininity, feminine pronouns etc. (Haslanger 2020b, 238). Due to limited space, I leave orientation aside.

This description implies that the concept stays in place because its overall function remains the same. For Haslanger, sameness of subject matter seems to amount to sameness of function. Could we then say that sameness of function can account for sameness of subject matter? No, we can't just stop there. Sameness of function is the motivation for saying that the concept should be left in place, but even on Haslanger's account, the concept is not *individuated* by the function it has.¹² For example, Haslanger says that "social, legal, and religious systems lay claim to the concept of MARRIAGE. But the concept has different functions relative to those systems" (Haslanger 2020b, 253). If *the* concept has different functions relative to different systems, the concept itself cannot be individuated by these functions.¹³

So, Haslanger needs to explain *how* a concept can be left in place throughout an amelioration, even if we agree that it *should* be left in place because its overall function remains the same. Indeed, her notions of epistemic and semantic amelioration are supposed to give us such an explanation.

I will now turn to objections against both kinds of amelioration. In my view, the objections show that concepts do not alter in both kinds of amelioration Haslanger envisages.

For *epistemic amelioration*, the objection is that it is either a case in which the content of the concept changes, so a case of semantic amelioration, or a case of mere belief revision. Thereby, the conception of an "epistemic amelioration" dissolves.

The first part of the objection against epistemic amelioration is to see how easily supposed cases of "epistemic amelioration" turn out to be cases in which the content of the concept changes, i.e. cases of semantic amelioration. As soon as we imagine a significant change in the resolution of a concept, it is hard to see how the concept could still have the same extension in each possible world, which would be necessary for an amelioration to count as epistemic, as Haslanger says:

we can say, then, that different individuals who share the concept of X form different *conceptions* of Xs. For example, I am a dog owner and love dogs. I can distinguish dogs from other animals. So can my dog's vet. We both have the concept of DOG; our concepts have the same extension in each possible world. But the vet has a grasp of the logical partition of dog-space - the worlds of dogs - at a much

¹² For a view that, in contrast, *individuates* concepts along their functions, see Prinzing (2018).

¹³ More on functionalism will follow in Sect. 5.1.

finer granularity than I do, and so can answer much more detailed questions about dogs than I can. (Haslanger 2020b, 237)

To make a stronger contrast, take a child and a vet. According to Haslanger, they both share the same concept DOG as long as they make the same dog-partition, i.e. they pick out the same animals in each possible world. An amelioration that moves from the childlike to the expert conception (*canis familiaris*) only changes the conception of the same concept DOG, without changing the content of the concept. It changes the conception of the concept by making it more fine-grained, but without thereby changing the logical partition, i.e. the content of the concept. Accordingly, the concept stays in place throughout the amelioration and guarantees SSM. On Haslanger's account, this is a case of epistemic amelioration.

Now, suppose that there is a creature that looks very similar to a dog but is in fact not a member of *canis familiaris*. Following Haslanger, the child and the vet both subsume it under DOG, even if they have different resolutions of DOG. But this is implausible: Probably, the child would still make this subsumption, but the vet would not. In this case, a different resolution of DOG would be immediately linked to a different partition of logical space, so to a different content. If a change of resolution leads to a different content of a concept, this amounts to a *semantic* amelioration by Haslanger's own lights.

Haslanger could insist that the child and the vet both subsume the dog-looking creature under DOG. Let's just leave the implausibility aside for a moment and go along with this suggestion. In this case, it is difficult to make sense of a difference in *resolution*. If the child can make the same sophisticated distinctions than the vet does, in which way is DOG still less fine-grained for the child than it is for the vet? I don't see this possibility. So, either the child and the vet have a different DOG concept, or they have the same DOG concept. To make room for something in-between, having the same DOG concept at different resolutions, is difficult.

To admit, the difficulty to make room for having the same concept at different resolutions depends on the neoclassical view of concepts. If concepts are ways of thinking, they are individuated by cognitive significance. Therefore, as soon as there is a different resolution, there is a difference in cognitive significance. Haslanger explicitly rejects individuating concepts on the level of Fregean Senses (2020a, 238). Accordingly, she would say that the objection I just raised does not

apply to her theory of concepts. We are reaching a more fundamental disagreement on the nature of concepts that cannot be resolved here. But at least, examples like DOG do not help to make Haslanger's position *against* individuating concepts on the level of Fregean Senses more plausible.

The second part of the objection against epistemic amelioration is to see that many cases of "epistemic amelioration" do not have to be treated as cases of conceptual amelioration. For instance, Haslanger is right that if we learn that "poverty takes different forms depending on age, gender" etc., we "access the phenomenon of poverty at a finer grain of resolution" (2020b, 240). But if we want to explain how a phenomenon can be accessed, we do not need the notion of altering concepts. We can simply treat such cases as belief change cases: We have learned something new about poverty. Why should this alter our concept POVERTY? It will hardly be doubted that not every case of a simple belief change will alter a concept in that we have the concept at a finer resolution. Haslanger does not give us clear-cut criteria to make a difference between simple belief change and epistemic amelioration.

To sum up, the first part of the objection against epistemic amelioration was that if it *is* operating on concepts, it is hard to see how it will not be accompanied by a change in content (and therefore be a case of semantic amelioration by Haslanger's own lights). The second part of the objection against epistemic amelioration was that if it is *not* operating on concepts, there is no clear-cut distinction to mere belief revisions that do not have to be treated as cases of conceptual amelioration at all. As a result, the conception of an "epistemic amelioration" dissolves. However, it could still be that concepts alter in *semantic amelioration*.

Haslanger bases her main argument in favour of concept alteration in *semantic amelioration* on an example about the concept METER, inspired by Yablo (2008). It starts from the observation that new "baptisms" of the meter, using different reference-fixers, have happened several times in history:

Although the adjustments of the term 'metre' were, in some cases, tiny, they did change the relevant partition of logical space that is the content of 'metre.' This shows, I submit, that we can meaningfully claim that the concept of METRE changed its content over time, i.e., the informational content changed, but the concept was not replaced with a new concept. (Haslanger 2020b, 249)

The meter argument faces an initial objection:

It is not probable that the content of our common METER concept is determined by the exact length of the official reference-fixer. A new baptism of the meter would hardly make a difference: My room would still measure 5 x 4 meters, my height would still be 1.80 meters, I won't replace my folding rulers at home, etc. On the assumption that concepts are ways of thinking, it is not an option to say that the concept has altered its content without any cognitive significance for the subjects entertaining the concepts. If nothing changes for me, we cannot say that the meter concept I entertain has altered due to the new baptism.

I envisage two possible replies to this objection: First, one could hold that the alteration due to the new baptism can be cognitively significant even if it has no practical relevance for me. Second, if the new baptism does not have an impact on my meter concept, this does not imply that it has no impact on anyone's meter concept.

Both replies can be countered. First, even if we suppose that the new baptisms of the meter have an impact on our METER concept, it is much more plausible that we refer to these baptisms in a *deferential* way that is not affected by the exact changes in length. To paraphrase: "METER contains the length that the experts define a meter to be." Accordingly, our METER concept would stay the same: Whatever the experts define a meter to be. Of course, nobody would possess the METER concept in this deferential way alone, but plausibly, as soon as you learn about the existence of "meter experts", such a deferential ingredient will be added to your METER concept. So again, there is no need for concept alteration arising from the new reference-fixer.

Second, a new reference-fixer surely changes the content of METER in some cases. For example, this could be true for subjects who need to measure lengths on a very precise level. These subjects will change their cutting of logical space. However, at this point, the METER example has lost its argumentative force. The example was meant to make it plausible that tiny changes in content do not change the concept. In contrast, the change now happens at the level of cognitive significance: the subjects changed their way of thinking. Doing so is not a tiny change. Therefore, nothing makes it implausible to see the example as an instance of conceptual *replacement* instead of alteration, however tiny the change in length is.

To conclude, neither kind of amelioration that Haslanger envisages—epistemic nor semantic—gives us a decisive reason to adopt the view that concepts persist and are altered throughout the amelioration process. The replacement claim remains in place.

2.2 Sawyer: inert concepts

Like Haslanger, Sarah Sawyer (2018, 2020a, 2020b) claims that concepts persist throughout the ameliorative process, thereby guaranteeing SSM. But unlike Haslanger, Sawyer thinks that concepts are inert; they are not altering in the amelioration.¹⁴

To introduce the problem of SSM, Sawyer distinguishes between two types of meaning shift (type 1 / 2). In both types, a change of extension is related to a change of meaning. In type 1, the change of extension is unproblematically accompanied by a change of subject matter. However, in type 2, subject matter should stay the same. Type 2 cases are characteristic for conceptual amelioration: We have changes in meaning, but an associated change of subject matter seems to undermine the ameliorative aim.

Sawyer illustrates the difference between type 1 and type 2 cases with two examples. I already introduced the examples in Sect. 2.3, but it is worth repeating them in order to explain Sawyer's account.

For type 1, Sawyer uses the example 'meat'. At t₁, 'meat' meant *food in general*. Apples, bread, and the like were part of the extension of 'meat'. At t₂, 'meat' means *animal flesh eaten as food*, so both the extension and the subject matter changed along with the meaning of 'meat'. To illustrate, imagine a dispute between two subjects from t₁ / t₂. Suppose, they could meet and debate about the claim "apples are meat". The t₁-subject would say that this is true, the t₂-subject would disagree. Now, this is a merely verbal dispute. If the debaters learned about the meaning shift, their dispute would be settled. The reason is the associa-

¹⁴ Sawyer thinks that "conceptual engineering" does not operate on concepts but linguistic meanings. One could therefore wonder why I include her account in the present discussion about conceptual engineering in the literal sense (i.e. operating on concepts). There are two reasons: First, Sawyer's account is an important alternative to Haslanger's when it comes to the solution of persisting concepts for maintaining SSM. Second, Sawyer's account and the account I will present in Sect. 4 have some important elements in common. As we will see, these elements can be transposed to the replacement view.

ted change of subject matter: In debating whether apples are meat, the t1-subject and the t2-subject would just talk past each other.

For the type 2 case, we can again take the marriage example (see Sect. 2.3). At t1, the meaning of ‘marriage’ constituted an extension that excluded same-sex couples. At t2, due to the meaning shift, these couples are included in the extension of ‘marriage’. So, we have a change of extension. But different from the type 1 case, the present case has no associated change of subject matter. Accordingly, when the t1-subject and the t2-subject debate the claim “same-sex couples can be married”, their dispute seems to be substantial. If the debaters learned about the meaning shift, the dispute would not be settled. Therefore, SSM is present in type 2 cases. What can account for SSM here? After all, subject matter cannot be equated to the extensions of words meanings, since they are changing.

Sawyer’s solution is that it is the *concept* that guarantees for SSM. E.g., the t1-subject and the t2-subject debate over the same concept MARRIAGE, but they have different *conceptions* of the concept MARRIAGE. In Sawyer’s view, conceptions are sets of beliefs. The prevailing conceptions in a society determine the meanings of the associated expressions (Sawyer 2018, 138). Accordingly, the t1-subject and the t2-subject think about the same thing, about marriage *as it is*. However, the t2-subject has a better conception of this concept.

I will now turn to something I see as a problem for Sawyer’s account: the distinction between the type 1 and type 2 cases is flexible and depends on contingent factors. Therefore, it is implausible that the persistence of a concept throughout the amelioration is what distinguishes type 2 from type 1 cases.

To begin with, let’s reconsider the ‘meat’-example (= type 1 meaning shift). Sawyer assumes that the change of extension is accompanied by a change of subject matter (2018, 133). This assumption can be questioned. To begin with, the change of subject matter is not radical. After all, we are still talking about food. What would be the criteria to decide whether a change of subject matter took place at all? Of course, the extension of ‘meat’ changed from t1 to t2. However, Sawyer rightly claims that extension and subject matter differ. How is ‘subject matter’ defined then?

Probably, what counts as subject matter depends on *what we are focusing on in the debate*. And what we are focusing on depends on *how contested the mea-*

ning of the relevant term is. Crucially, both elements can vary for the same example of meaning shift.

To illustrate, let's reconsider the 'meat' case: We can imagine a heated debate over whether we should use 'meat' for *food in general* or just for *animal flesh eaten as food*. Imagine vegetarians who take actions to engineer 'meat' back to the broader

Probably, what counts as subject matter depends on *what we are focusing on in the debate*. And what we are focusing on depends on *how contested the meaning of the relevant term is*. Crucially, both elements can vary for the same example of meaning shift.

To illustrate, let's reconsider the 'meat' case: We can imagine a heated debate over whether we should use 'meat' for *food in general* or just for *animal flesh eaten as food*. Imagine vegetarians who take actions to engineer 'meat' back to the broader meaning to make animal flesh less important for our food practices. Imagine butchers as their opponents. Here, the meaning of 'meat' would be contested. Now, take the sentence "Apples are meat" again. Due to the contested meaning, A and B will not just end the debate as soon as they learn that their 'meat'-extensions differ. The reason is that the subject matter of their debate is what 'meat' should mean. Therefore, the subject matter is identical, even if (or exactly because) the debaters associate different extensions with 'meat'.

If this description of the 'meat' case is plausible, SSM should not be tied to sameness of concepts. To see this, think about how easily we can switch from the original version of the 'meat' case to the contested version. What counts as subject matter largely seems to depend on people's interests and contextual elements. In one context, it could be appropriate to fight about the meaning of 'meat', whereas, in a different context, one should simply realise that people use the term with different meanings. To turn a debate into an SSM case, the interests or the context have to make salient the question which concept is the right one.

Following Sawyer's account, the factors mentioned would determine whether 'meat' expresses the same concept throughout the debate or not. As a result, Sawyer's distinction between cases with and without change in subject matter (type 1 / 2) is too static. If we acknowledge the flexibility of the distinction, tying subject matter to concepts becomes implausible.

Still, Sawyer's account contains a distinction that helps to solve the problem of SSM: that between *extension* and *subject matter*. Remember the type 2 case ('marriage'): For this case, Sawyer convincingly argues that the change of extension does not imply a change of subject matter (different from the type 1 case 'meat'). Therefore, extension and subject matter must be different.

The account I will suggest (Sect. 4) is parallel to Sawyer's account in that it makes a similar difference between extension and subject matter. However, extension and subject matter are located differently. In Sawyer's account, extensions are linked to words (e.g. "meat"), subject matter is linked to the concept persisting throughout the amelioration. In the account to be outlined, extensions are linked to concepts, subject matter is identical to the concepts' *referent*. As a result, whereas Sawyer holds that persisting subject matter needs a concept that stays in place, I will hold that subject matter can persist even if concepts are replaced because different concepts can have the same referent.

3. SSM IN LIGHT OF CONCEPTUAL REPLACEMENT

In Sect. 1, I defended the claim that concepts are *replaced* in conceptual amelioration. The replacement claim raised the worry of missing sameness of subject matter: How can we say that we are ameliorating a concept if we are replacing it? The notion of amelioration seems to require that we keep the concept (altered or inert) and give up the replacement claim. This is what Haslanger and Sawyer do in their respective accounts. However, their accounts are ultimately not successful in solving the problem of SSM. Thus, I wish to explore the possibility of solving the problem of SSM *while maintaining the replacement claim*.¹⁵

Roughly put, the solution will be that the extension of the post-amelioration concept determines subject matter/reference for both the post- and the pre-amelioration concept. This idea originates from Andreas Bartels's *chains of meaning* account (Bartels 1994, 2008). In what follows, I will outline the account and adapt it to the present discussion about SSM in conceptual amelioration.

¹⁵ I admit that it is impossible to say that we are ameliorating or engineering a given concept in a strict sense if we replace the concept. Nevertheless, a practice is rightly called 'conceptual amelioration' if it improves our conceptual resources. This can be done with replacing concepts.

3.1 Common reference with chains of meaning (Bartels)

The *chains of meaning* account is originally tailored to conceptual change in scientific theories. Andreas Bartels (1994, 2008) develops his account from detailed case studies of conceptual amelioration in physics (mass, entropy, relativist temperature and dimension). To illustrate, I will give a rough outline of one of Bartels's examples: the replacement of the Newtonian with the Einsteinian mass concept.

The concepts expressed by “mass” seem to be radically different between the Newtonian and the Einsteinian theories. One might even say that the theories are semantically *incommensurable* (Kuhn 1962). However, Bartels takes the *epistemic rivalry* between the two theories as a brute fact, thereby rejecting the incommensurability claim. In order to have epistemic rivalry between two theories, referential stability between the central concepts of both theories is needed (Bartels 1994, 46).

Accordingly, cases like the mass example are different from standard examples of explication. Explication is an attempt to replace concepts that create problems with better concepts that avoid them. For reaching this goal, changing the subject can be admitted (Brun 2016, 1219; see Introduction). But in the mass example, we need more. Here, we need sameness of subject matter between different concepts to say that it was scientific progress that we replaced one concept with another.

How can we maintain SSM between the concepts of two theories? Importantly, Bartels does not look for sameness on the level of intensions. As his examples show, the intension of a given term, e.g. “mass” often radically differs from the predecessor to the successor theory; i.e. we have *different ways of thinking*, and therefore a different concept expressed by the term (even if the term stays “mass”).

Bartels's solution to maintain sameness of subject matter is that we can have *referential stability* between different concepts. This allows for comparing concepts and the theories they belong to, e.g. by saying that one concept or theory is more empirically adequate than the other. To do so is to establish a *chain of meaning* between the terms of different theories. The terms have different meanings, i.e. they express different concepts, but the concepts have the same referent.

To have referential stability between two concepts, we need a relation of *embedding*, so that the predecessor concept is embedded in the successor. An informal characterisation of “embedding” (that will do for our purposes) goes as follows:

the terms stand in a relation of semantic embedding if one term (I call it the predecessor term) can represent the other term (its successor) in certain situations in which the conditions of application of the old term are approximately fulfilled. (Bartels 1994, 328 - my translation)¹⁶

Coming back to the “mass” example, we can see how the Newtonian concept (MASS_N) is embedded in the Einsteinian concept (MASSE). (Again, this is a very simplified version compared to Bartels’s case study.) First, we have a clear difference in that MASS_N does not apply to black holes; only MASSE does (Bartels 1994, 104). For a Newtonian, it would just not have made sense to say that a black hole has a mass because MASS_N only applies to material bodies. In contrast, an Einsteinian can ascribe the mass predicate to black holes. Accordingly, the intension of the term “mass” is different between the Einsteinian and the Newtonian theory. MASS_N and MASSE are different concepts, even if they are expressed with the same term “mass”.

However, on the present account, we can make sense of the idea that the two different concepts MASS_N and MASSE have a *common referent*. The reason is that MASS_N is *embedded* in MASSE. We can see this if we restrict our domain of inquiry to material bodies: both theories, the Newtonian and the Einsteinian, can ascribe mass to them. So, Newtonians already got many things right about mass. E.g. their calculations and predictions regarding the mass of material bodies can be equated to the calculations and predictions Einsteinians make in applying their mass concept to the same bodies. Having this in mind, it makes sense to say that Newtonians already referred to what we refer to in ascribing “mass”, even if Newtonians were not aware of this fact. This is how we see and can make sense of sci-

¹⁶ It doesn’t matter for our purposes that Bartels speaks of terms instead of concepts here. He uses both “term” and “concept” to characterize the embedding relation. On the assumption that terms express concepts and the intension of a term is the concept it expresses, if one term is embedded in the other term, this implies that the concept the term expresses is embedded in the other concept.

entific progress. To say that Newtonians “got many things about mass right” is to say that MASS_N has the same referent than our mass concept MASSE.

As the mass example shows, the best approach we have to what mass is is what we think the concepts of our present theory refer to: the extensions of our present concepts (Bartels 1994, 89, 99). So, if we want to make sense of the idea that Newtonians got many things right about mass, the extension of our present concept MASSE is the common referent for MASS_N and MASSE.¹⁷

In Sect. 1.1, I introduced some terms and distinctions that can be applied now:

The ideal referent (I-referent) is what mass “really” is. Only the extension of a mass concept in an ideal theory, that is, an “ultimate successor” concept of our mass concept could be equal to the I-referent. But still, the mass concept of the present physical theory gives us the best approach we have to this ideal referent: the extension of MASSE. So, the approximative referent (A-referent) is the extension of MASSE. The crucial claim of the chains of meaning account is that the A-referent is the common referent for both, MASS_N and MASSE.

3.2 Transferring Chains of meaning to the SSM cases

We can transfer the *chains of meaning* account to conceptual amelioration in the socio-political domain. Marriage is our example again. To repeat: Subjects at t₁/t₂ express different concepts with “marriage”: MARRIAGE at t₁ (no same-sex couples in the extension) and MARRIAGE* at t₂ (same-sex couples in the extension). The amelioration replaces MARRIAGE with MARRIAGE*. Therefore, the worry about SSM arises: In replacing MARRIAGE with MARRIAGE*, didn’t we change the subject?

The *chains of meaning* account can take away the worry about SSM. To begin with, we can equate subject matter with reference: It is what our concepts are about. Now, we have to find out what the referent of MARRIAGE and MARRIAGE* is. Since we want SSM, the referent needs to be identical. At first sight, the referents of MARRIAGE and MARRIAGE* seem to be different, only the latter including same-

¹⁷For the distinction between extension and referent, see Sect. 1.1.

sex couples. But according to *chains of meaning*, this first impression is wrong. It confuses extension with reference. In contrast, reference has to be approached via the extension of the post-amelioration perspective. From this perspective, both MARRIAGE and MARRIAGE* refer to a social kind (let's say) that includes same-sex couples. So, the extension of MARRIAGE* is the A-referent for both concepts, MARRIAGE and MARRIAGE* (see Sect. 1.1).

As we can see now, the subjects who applied the pre-amelioration concept did not get things completely right. They were on the right track, grasping some aspects of marriage correctly. But they falsely excluded same-sex couples from the extension of MARRIAGE. By replacing the concept with MARRIAGE*, we get a *better* grasp of marriage. However, it is not certain whether we have grasped what marriage *really* is. This would be the I-referent, the extension of a corresponding concept in an *ideal* theory. The possibility of further conceptual replacements and associated re-definitions of the referent remains open.

At this point, one could object that if we do not know what marriage really is, we cannot even know that we are on the right track. Why should the extension of MARRIAGE* be the A-referent? Many conservatives disagree, in fact. Analogously, Newton would not agree that his concept refers to relativistic mass (given that he could understand what relativistic mass is, at all). And the socio-political cases seem to be even more controversial. Does this objection refute the way in which the chains of meaning account explains sameness of subject matter/reference?

No, it is not a problem for the present account that Newton or conservatives would insist that their concepts are the right ones. It is a question of fact whose concept's extension is the A-referent (e.g. depending on which theory on mass is the correct one, the Newtonian or the Einsteinian). This question directly relates to the question whether something counts as an amelioration, which is a question of fact as well. A theory on conceptual amelioration can't tell us what the A-referent is. In order to know, we have to take a stand in the debate.¹⁸

¹⁸ The present account predicts that the parties in a debate don't have to agree that there is sameness of subject matter, even if there is. In fact, this is what happens in debates related to conceptual amelioration. E.g., see what the Rick Santorum, a conservative politician, said about people expressing the concept MARRIAGE* with "marriage": "It's like going out and saying, 'That tree is a car.' Well, the tree's not a car. A tree's a tree. Marriage is marriage. You can say that tree is something other than it is. It can redefine it. But it doesn't change the essential nature of what marriage is" (quoted in Ludlow 2014, 22-23). If Santorum agreed that MARRIAGE and MARRIAGE* have the same referent (the A-referent, which equals the extension of MARRIAGE*), he would have to agree that MARRIAGE* comes closer to what marriage is; the debate would be over.

In sum, the *chains of meaning* account makes room for maintaining sameness of subject matter even if concepts are replaced. If we replace a concept in an SSM case, the extension of our present concept is an A-referent that becomes the common referent for both the pre- and the post-amelioration concept. By this token, we have maintained SSM.

4. ALTERNATIVE ACCOUNTS

Before concluding, I will discuss two alternative accounts for maintaining topic continuity: first, functionalism, (where I will take Nado (2021) as representative), second, Ball (2020a, 2020b), who proposes a seemingly similar account to the one that has been proposed here. I will argue that both accounts have significant differences to mine. As a result, they cannot account for continuity in the specific way the SSM cases of conceptual amelioration demand.

4.1 Functionalism (Nado)

Importantly, the kind of continuity Jennifer Nado envisages is not SSM. Still, Nado is in favour of *some* kind of continuity. One of her examples concerns an eliminativist who rejects folk psychological mental categories and replaces them with concepts expressing connectives of propositional logic: “we’d rightly object”, Nado says. (2021). What gives us the continuity needed? This is where functionalism comes in:

I hold that sufficient continuity is provided by continuity of function. Very roughly, a successor concept is ‘similar enough’ to the original concept so long as it serves the same function(s). (Nado 2021)

According to Nado, functions can guarantee sufficient topic continuity throughout amelioration, even if concepts are replaced.

There is both an important similarity and an important difference between Nado’s account and the present one: The similarity is that conceptual amelioration that maintains continuity is compatible with conceptual replacement on both accounts. The difference is that Nado’s envisaged continuity is less strict than SSM;

the present account holds that conceptual replacement is compatible even with SSM.

What is the better way to address the continuity challenge for conceptual engineering, via SSM provided by the *chains of meaning* account or via continuity of functions? There is no general way to answer this question. The reason for this is that different kinds of conceptual engineering can co-exist. Sometimes, sameness of function may be enough, while the subject matter/referent changes along with the conceptual replacement. See one of Nado's examples: the replacement of PHLOGISTON with OXYGEN changed the subject. I think that Bartels's account could confirm this: PHLOGISTON is not embedded in OXYGEN, rather we have a case of outright elimination. However, Nado continues, we still have a kind of continuity in the PHLOGISTON-OXYGEN case: sameness of function.

Continuity is still required in cases where the subject has changed. Had a bold chem-ist proposed replacing 'phlogiston' with 'carburetor', things would not have gone quite so well. Why not just claim that continuity of function can be maintained without identity? (Nado 2021)

I agree with Nado that cases like PHLOGISTON-OXYGEN are cases of conceptual amelioration that can do with continuity at the level of functions. We need SSM only in *some* cases, but these are important ones. For example, the motivation to say that Newtonians already referred to Einsteinian mass is that they got many things right about Einsteinian mass. To say so, SSM is needed.

We can transfer this idea to conceptual engineering in the socio-political realm. Here, we have similar cases in which we want to say that pre-ameliorators already referred to what we are referring to now. We have seen this in the marriage example, even if it might be controversial there (see Sect. 2.1). But there are further examples:

Linguistic practice surrounding the term 'rape' has clearly changed over time. This means that the linguistic meaning of the term 'rape' has changed over time. But we should not, I suggest, accept the kind of relativism about rape that would follow from thinking of the change in meaning as meaning shift of the first kind. Acts of rape within marriage may not previously have been recognised as such, but they were acts of rape nonetheless. (Sawyer 2018, 144)

Remember that Sawyer takes conceptual engineering to concern word meanings, not concepts. But the example works on the concept level as well, illustra-

ting the importance of SSM. What does it mean to say that acts of rape may not have been recognised, “but they were acts of rape nonetheless”?

The *chains of meaning* account is apt to explain this: We claim to have a better grasp of rape than our conceptual ancestors did. Our concept RAPE* includes marital rape in its extension; this is the way of thinking and the related discriminatory practice we have concerning rape. If we are on the right track, the extension of RAPE* is the A-referent for both RAPE and RAPE*. Therefore, we have SSM in the amelioration.

In general, the functionalist approach seems to lack the resources to detect SSM, which is the kind of continuity we need in cases like rape. It is simply not enough that RAPE and RAPE* share the same function in order to be able to say that people expressing RAPE already referred to what we are referring to in expressing RAPE*. ¹⁹

4.2 Temporal externalism (Ball)

Derek Ball (2020a, 2020b) has addressed the Strawsonian challenge to conceptual engineering in a way that seems similar to the *chains of meaning* account at first sight. However, there are crucial differences. Highlighting these differences will help to further clarify how the *chains of meaning* account captures the relation between concepts and reality.

Ball assumes that, in order to maintain SSM, we need sameness of meaning. However, he accepts that well-known examples like Haslanger’s analysis of “woman” (Haslanger 2012, 239) are *revisionary*. This is how he reconciles sameness of meaning with being revisionary:

There is a perfectly natural sense in which one can advance a revisionary analysis like (W) as an analysis of ‘woman’ as we have always used it, the word and the concept that we have been employing all along—without changing the subject or engineering a new concept or anything of the sort. There is no conflict between the idea that such analyses are revisionary and the idea that they are descriptive: they are revisionary, in that they depart from present usage and be-

¹⁹ Prinzing (2018) has a different functionalist account: He *individuates* concepts along their functions. Thereby, functionalism could maintain SSM by maintaining the concepts. But first, it is controversial that functions are fine-grained enough to individuate concepts. Second, the account again faces the problems of letting concepts stay throughout the amelioration.

liefs, but are still descriptive in that they are making a claim about what we mean now and have meant all along. (Ball 2020b, 37)

As this quote shows, Ball thinks that conceptual engineering in the strict sense, i.e. as an activity that alters or replaces concepts, is a misguided notion. Rather, he sees revisionary projects like Haslanger's as a special kind of conceptual analysis in that they just *reveal* the meaning a term like "woman" had all along.²⁰

The metaphysical background assumption of Ball's view on revisionary projects is his appraisal of *temporal externalism*.

Say that a property *p* is *Solonic* if and only if whether an object has *p* at a time *t* depends in part on what happens after *t*. [...]

The temporal externalist holds that properties like *meaning that water is wet* and *believing that arthritis is a disease* are Solonic. (Ball 2020a, 1058-59)

If we apply temporal externalism to the situation of a debate, we get the following result:

The parties' dispositions to apply the term at issue at the end of the debate help determine the content of the term as used at the beginning of the debate. (Ball 2020a, 1074)

According to this picture, if Haslanger's revisionary analysis is convincing, the debating parties will agree on her analysis of the meaning of "woman" and - as a result of temporal externalism - this will be the meaning that "woman" had all along.

At this point, we arrive at a characterisation of what goes on in the revisionary project that seems to be similar to the *chains of meaning* account. The common element seems to be a kind of retrospective projection from the post-revisionary discovery to the pre-revisionary situation. Ball says that "our theoretical activity shapes what we mean, but it does so not by making us mean something new, but by shaping what we meant all along" (2007b, 37). Accordingly, Ball holds that the present liberal meaning of "marriage" shapes the meaning that "marriage" had all along (Ball 2020b, 53). One could think that the *chains of meaning* ac-

²⁰ Regarding concepts, it then comes as no surprise that Ball considers differing analyses in a debate (about "marriage", "woman" or the like) "not as analyses of different concepts, but *as competing proposed analyses of one and the same concept*." (Ball 2020b, 45)

count is very similar in saying: “A successful amelioration shapes what we referred to all along.”

Despite the seeming similarity, there is a significant difference between the present account and Ball’s. Whereas I accept that concepts are replaced in conceptual amelioration, Ball denies this. Accordingly, whereas Ball denies meaning change, I accept meaning change in conceptual amelioration, since concepts express the meanings of terms, and concepts are replaced. In expressing MARRIAGE* instead of MARRIAGE with “marriage”, the meaning of “marriage” has changed.

Due to the difference mentioned, the chains of meaning account is immune to an objection Sawyer raises:

Ball’s account [...] falls back into a form of descriptivism and is inconsistent with the objectivity of the properties about which we think and talk. Stipulations made on the basis of agreement after rational reflection will always in principle be open to challenge, no matter how much evidence has been gathered in their favour. After all, what reason could we have to think that future members of our linguistic community could not in principle be collectively mistaken? Some properties and kinds are what they are, and are not made so by any agreement we may collectively reach [...]. (Sawyer 2020b, 1020)

Sawyer holds that Ball’s account is problematic in the light of *realism*, here to be understood as the claim that “the properties about which we think and talk” are out there for us to discover. They do not change according to “stipulations on the basis of agreement after rational reflection”.

At first sight, it seems the *chains of meaning* account is similarly affected by Sawyer’s objection. Because the common referent is determined from the extension of our present concept, it may seem that this is likewise a stipulation on the basis of agreement that clashes with realism. However, the decisive difference is that the *chains of meaning* account does not locate SSM at the level of *meaning* but at the level of *reference*. The common referent is, in a way, determined by meaning, so one could hold that SSM depends on meaning, like in Ball’s account. But importantly, in SSM cases (like in the scientific examples), the extensions of our present concepts are approaches (A-referents) to *ideal* referents (I-referents).²¹ So, in SSM cases, our concepts—and accordingly, the meanings of our terms—have a mind-to-

²¹ In this respect, Bartels’s account is inspired by Putnam’s (1975) conception of an ideal, theory independent reference. The extensions of our present concepts are to be seen as approximations of the ideal referents (see Bartels 1994, 89).

world direction of fit. We take our concepts to mirror reality. Only by this token, we are licensed to say that the extension of our present concept determines the common reference for both the pre-amelioration and the present concept.

To illustrate, Einsteinians did *not* decide what their concept MASSE should refer to and then stipulate this new referent for the previous concepts in the chain. Rather, they have the concepts they have (including –E) due to how they see the world. Therefore, how the *chains of meaning* account establishes referents is consistent with “the objectivity of the properties about which we think and talk”. The extensions of our present concepts *mirror reality* (or what we know of it), and what is real for us was real all along.

I claim that the SSM cases like *marriage* and *rape* are similar to the scientific cases like *mass* in that they equally mirror reality. As soon as we treat them as SSM cases, we want to know what marriage or rape really are. Therefore, we are licensed to compare the previous concept to the present one, implying that they both have the same referent. Doing so allows us to tell a story of progress, not just of any kind, but of progress in better grasping the referent by replacing our concepts.

CONCLUSION

This paper examined how sameness of subject matter can be maintained in conceptual amelioration even if concepts are replaced. The examination delivered the following main results:

1. On the view that concepts are ways of thinking, conceptual amelioration is conceptual replacement.
2. Accounts that leave the concept in place throughout the amelioration (in order to maintaining sameness of subject matter) are not convincing alternatives to the replacement view.
3. Sameness of subject matter can be maintained without abandoning the replacement view. We identify the extension of the post-amelioration concept with the common referent for both concepts (*chains of meaning* account).

4. The *chains of meaning* account is compatible with realism for sameness of subject matter cases, i.e. with the claim that subject matter does not depend on the meanings of our terms.

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