

Strategic Conceptual Engineering for Epistemic and Social Aims

Ingo Brigandt and Esther Rosario

Department of Philosophy, University of Alberta
2-40 Assiniboia Hall, Edmonton, AB T6G2E7, Canada
Email: brigandt@ualberta.ca, erosario@ualberta.ca

Abstract: Examining previous discussions on how to construe the concepts of gender and race, we advocate what we call strategic conceptual engineering. This is the employment of a (possibly novel) concept for specific epistemic or social aims, concomitant with the openness to use a different concept (e.g., of race) for other purposes. We illustrate this approach by sketching three distinct concepts of gender and arguing that all of them are needed, as they answer to different social aims. The first concept serves the aim of identifying and explaining gender-based discrimination. It is similar to Haslanger's well-known account, except that rather than offering a definition of 'woman' we focus on 'gender' as one among several axes of discrimination. The second concept of gender is to assign legal rights and social recognitions, and thus is to be trans-inclusive. We argue that this cannot be achieved by previously suggested concepts that include substantial gender-related psychological features, such as awareness of social expectations. Instead, our concept counts someone as being of a certain gender solely based on the person's self-identification with this gender. The third concept of gender serves the aim of personal empowerment by means of one's gender identity. In this context, substantial psychological features and awareness of one's social situation are involved. While previous accounts of concepts have focused on their role in determining extensions, we point to contexts where a concept's role in explanation and moral reasoning can be more important.

Conceptual analysis, as traditionally practiced by philosophers, consists in articulating a concept by means of imagining various scenarios and using one's intuition as to whether or not the concept (e.g., the concept of knowledge, or the concept of causation) applies to a given case (Brigandt 2011; Jackson 1998). This approach makes explicit the concept one currently happens to possess. In contrast, the project of *conceptual engineering* attempts to put forward the most suitable concept for a philosophical task, which may well require revising or abandoning one's current concepts. Kevin Scharp (2013) champions this approach when arguing that the concept of truth is inconsistent and theoretically unsuitable and that it should be replaced with several successor concepts. In what follows we primarily use the label 'conceptual engineering' for this general approach, although another option is to employ the term *conceptual ethics*, as advocated by Alexis Burgess and David Plunkett (2013a, 2013b), given that the latter label highlights normative questions, such as what makes one concept better than another one, which concepts should be used, and which concepts should be discarded (see also Plunkett 2015, 2016; Plunkett and Sundell 2013). A prominent illustration of this philosophical practice is the prior work by Sally Haslanger (2000, 2004, 2005, 2006) on the concepts of gender and race. Her 'ameliorative analysis' of gender and race, with definitions that incorporate the hierarchical social treatment of different genders and races, deliberately deviates from standard definitions (even philosophical ones), so as to provide new concepts meant to serve feminist and anti-racist aims.

We contribute to discussions on how to construe gender and race, where our reflections on these concrete cases will also provide guidelines for the general philosophical project of conceptual engineering. In this essay, we put forward various suggestions without endeavouring to articulate a specific concept of gender or race. In fact, our general position will be that there is

no unique, privileged concept of either gender or race.¹ Rather than an alleged all-purpose concept, what is needed is a plurality of concepts of gender and race, each of which is geared toward certain epistemic and/or social aims. We dub the development of a concept for a specific thought and action context—combined with an openness to employing another concept when pursuing other aims—*strategic conceptual engineering*. We will illustrate this approach by sketching three distinct concepts of gender, all of which are needed because each serves a different social aim.

By ‘concepts’ in general we mean components of a person’s thought which can influence reasoning as well as action. Concepts have the latter capacity by means of embodying descriptive and/or normative beliefs (some of which may be implicit). This is not a purely externalist construal of concepts, that would locate all aspects of conceptual content outside of a person’s cognitive life. Our reason for including and in fact focusing on narrow conceptual content is *methodological* (for a more detailed account see Brigandt 2011). The project of conceptual engineering consists in adjudicating why adopting and using one concept is most conducive (or in any case more conducive than another one concept) for conducting a given intellectual or practical task. For this philosophical project, aspects of content that impact thought or action (such as descriptive or normative beliefs) have to be invoked, so that one is in a position to count a person’s adoption of a novel concept or a modification to a concept as a change—and possibly an improvement—in her intellectual or practical capabilities. (The same holds for the study of scientific concepts addressed in the next section.) A purely externalist approach, in contrast, might acknowledge that a person’s beliefs have changed, while maintaining that the concept (e.g., the externally established referent) has not. But then such an approach would use the notion

¹ In addition to Jennifer Saul’s (2006, 2012) proposals, which we will encounter below, there have been other discussions attempting to put forward a uniquely correct concept of gender (Bach 2012; Stone 2004).

of ‘concept’ such that it fails to actively address what is actually relevant for the purpose of conceptual engineering and conceptual ethics.²

Before turning to conceptual engineering in the concrete context of gender and race as concepts that have exercised philosophers, we begin with a look at scientific concepts.

Lessons from Scientific Concepts

Not only concepts used by philosophers are in need of improvement (as the agenda of conceptual engineering underscores), but also scientific concepts are routinely revised. Indeed, the investigation of concept change and semantic variation in biology that has been conducted by one of us (Brigandt 2010, 2011, 2012) can provide guidance for the philosophical project of conceptual engineering and conceptual ethics. The motivation for attempting to understand concept change in science is the following.

Scientists are never hostage to the definitions they once used, and upon the arrival of a novel theoretical perspective they may redefine a term. For example, with the advent of molecular genetics the classical gene concept gave rise to the significantly different molecular gene concept (Brigandt 2010). The homology concept (referring to the corresponding structures in different species) was introduced well before the advent of Darwin’s evolutionary theory, and only later came to be given a definition that appeals to common ancestry (Brigandt 2012). Yet Kuhn (1962) and Feyerabend (1962) prominently claimed that a term being used within different theoretical frameworks amounts to ‘incommensurable’ concepts. Outside of philosophy of science, some

² Our motivation for not using a purely externalist construal of concepts can be seen as an instance of conceptual engineering pertaining to the philosophical concept of ‘concept’, as it adopts a certain notion of ‘concept’ because it is more fruitful for the philosophical task at hand (Brigandt 2011).

have likewise deemed the changing of a term's definition as illegitimate by framing it as a 'change of subject' (see also Prinzing 2017). For instance, in their argument against a naturalistic reduction of consciousness, Chalmers and Jackson (2001) acknowledge that future neuroscientists may put forward what these scientists would call a naturalistic concept of consciousness. But Chalmers and Jackson insist that this different concept would be irrelevant to their claims about consciousness involving the current concept of consciousness, where they do not allow for there being good reasons to replace the concept with a revised one (Brigandt 2013).

Thus, the question is how it can in fact be legitimate for scientists to revise a concept. We do not have a clear answer to the notoriously difficult question of how to individuate concepts. But this does not matter for our purposes, because regardless of whether a change is framed as an enduring concept being modified (in features not affecting its identity) or as one concept being replaced by a different concept associated with the same term (see also Richard this volume), the project is to understand why the new concept is the better one to use. To do so, the crucial move is to view a concept as being used by scientists to pursue a *specific scientific aim*, because this aim—Brigandt (2010) dubs it the 'epistemic goal' of a concept—sets the standards for whether one definition of a concept is superior to another definition. In line with the aims that individual scientists pursue, such an epistemic aim is not a global aim of science (e.g., putting forward explanations), but a local aim that is pursued by only some scientists in a certain context, e.g., explaining programmed cell death, or having the ability to experimentally manipulate molecular pathways involved in cell-cell signalling.

The novel philosophical claim is to point out that there are cases where a scientific aim can be tied to an *individual concept* in that this concept is being used by scientists to pursue this aim. For example, while the classical gene concept was used for the purpose of predicting (and statistically explaining) phenotypic patterns of inheritance across generations, the molecular gene

concept serves the aim of causal-mechanistically explaining how inside a cell a gene leads to the formation of its molecular product. Making explicit such an aim tied to a concept's use permits one to account philosophically for the rationality of concept change: a revised definition is an improvement over an earlier definition if the former is empirically more conducive to meeting this aim (Brigandt 2010).³ While concepts are typically construed as beliefs about the concept's referent and philosophy of science has traditionally articulated various *representations of natural phenomena*, the inclusion of scientists' investigative, classificatory, or explanatory aims to one's philosophical study of scientific concept use adds an additional dimension, as aims are *values pertaining to what human practice is to achieve*.

In addition to diachronic conceptual differences (e.g., concept change in the history of science), another common situation is synchronic semantic variation across different scientists. The latter can likewise be captured by a philosophical framework emphasizing the notion of epistemic aims (which also provides guidelines for philosophical studies of concepts outside of science). For example, genes do not form a unique structural kind, resulting in a plethora of different (although overlapping) contemporary uses of the term 'gene,' where even one and the same biologist can use the concept differently in different contexts. Such semantic variation can be philosophically understood and seen to be conducive to scientific practice in case distinct uses of a term serve somewhat different scientific aims. In the case of the molecular gene concept as used currently, one can make the case that there is still one *generic* epistemic aim shared across all uses of the term, while individual uses may differ in the *specific* epistemic aim pursued by a

³ While this account was developed independently of work outside of philosophy of science (and more explicitly emphasizes the philosophical role of aims), it aligns with Haslanger's ameliorative project about philosophical concepts: "on my view, whether or not an analysis is an improvement on existing meanings will depend on *the purposes of the inquiry*." (Haslanger 2005, p.24, emphasis added)

person in this context (Brigandt 2010). Another case in point is that biologists use various species concepts, which cross-classify organisms. Philosophers have argued that a plurality of species concepts is needed to serve different scientific purposes (Kitcher 1984). The conceptual diversity in biology suggests a first lesson for the philosophical project of conceptual engineering. It may well be that one definition cannot serve all the legitimate aims associated with a philosophical notion, so that philosophers should be open to a *pluralism* that permits different concepts, each of which is most conducive in some context (see also Burgess and Plunkett 2013b).

Apart from philosophers accounting for conceptual differences in biology in terms of scientific aims, there are cases where the scientists themselves are aware of the fact that their semantic differences are due to a concept being used for different purposes by different approaches or different biological fields—the diversification of the homology concept during the last three decades is a case in point (Roth 1991; Wagner 1989; see also Brigandt 2003). But in general, the aims for which scientific concepts are used and reshaped are only implicit in scientific practice, which also results in instances of biologists talking past each other when being oblivious of the fact that their semantic disagreement is due to individually legitimate, yet different scientific aims being at stake. This yields another lesson for conceptual engineering. It can be beneficial to explicitly articulate the aim that a philosophical concept is to serve, in particular if others implicitly use the same term for quite different purposes. Subsequently showing that one's proposed concept serves this purpose better than traditional alternatives is no easy task, given that a concept may be meant to serve several related aims, but being explicit about the aims at stake is a fruitful first step.

Philosophy of science accounts of concept change have appealed to epistemic aims and values, rather than social aims and values. But this should not be construed as an endorsement of

a dichotomy between epistemic aims and social aims. Indeed, even though some do construe ‘epistemic’ narrowly as only those features pertaining to truth (Douglas 2009), the above examples of epistemic aims included explanatory aims—which go beyond aiming at truth given that not every true scientific representation is explanatory of a phenomenon and given that causal and mechanistic explanation is also related to the practical ability of effectively intervening in nature. More generally, the specific aims pursued by scientists typically combine more epistemic and more practical considerations, from pragmatic constraints on research (e.g., not pursuing a question that one cannot answer given data and computational limitations) to intended applications that implicate pharmaceutical or environmental aims (Kitcher 2001). This *entwinement of the epistemic and the social* also holds for scientific concepts and categories, which can implicitly embody non-epistemic values, or at least their use can be criticized based on such values (Brigandt 2015). That said, many general discussions of scientific concepts have tended to focus on more epistemic aims, so it is now time to turn to concepts that explicitly serve social-political aims.

Engineering Concepts in the Context of Biosocial Phenomena: Gender and Race

Among the concepts that answer not only to empirical facts and epistemic aims but also to social-political aims, our discussion focuses on gender and race. We do not so much endeavour to put forward a clearly articulated concept of gender or of race (and later on will also argue that a plurality of gender and race concepts is needed). Instead, our primary agenda is to offer methodological remarks on how to engineer these concepts, with implications for other concepts relevant to philosophers engaging in conceptual engineering and conceptual ethics. Before also

addressing the notion of race, we begin with gender.

Sally Haslanger (2000)—while explicitly acknowledging that there may be further concepts of gender—prominently put forward the following definition of ‘woman’ (we do not restate her analogous definition of ‘man’):

S is a woman iff

- (i) S is regularly and for the most part observed or imagined to have certain bodily features presumed to be evidence of a female’s biological role in reproduction;
- (ii) that S has these features marks S within the dominant ideology of S’s society as someone who ought to occupy certain kinds of social position that are in fact subordinate (and so motivates and justifies S’s occupying such a position); and
- (iii) the fact that S satisfies (i) and (ii) plays a role in S’s systematic subordination, that is, *along some dimension*, S’s social position is oppressive, and S’s satisfying (i) and (ii) plays a role in that dimension of subordination. (Haslanger 2000, p.42)

One motivation for this definition is prior skepticism about the possibility of putting forward a coherent concept of gender. Sex and gender have traditionally been distinguished, with sex pertaining to biological features, while gender roughly being the social meaning of sex. But it has been questioned whether sex is independent of social construction (Butler 1990, 1993). And the idea of gender being constituted by certain social features may commit one to postulating a sort of social essence of gender, which is unacceptable given that different women can face different social expectations, occupy different social positions, and can have radically different social experiences (as shown vividly by considerations about intersectionality). By falsely maintaining that all women share certain social properties, any definition of ‘woman’ would effectively privilege certain forms of femininity while excluding other women. This casts doubt on whether it is advisable for a feminist to ever put forward a specific definition of ‘woman,’ yet

at the same time it is unclear *who* the target of feminist activism is if it does not pertain to women, as a socially construed category (Alcoff 1988; Heyes 2000; Stone 2004).

By not assuming that women must have a unique, shared psychological identity or identical social experiences, Haslanger's above account circumvents these problems and instead focuses on the point that, because of their gender, women tend to occupy disadvantaged social positions. This provides not only an idea that can unite feminist activists, it more generally is a concept that is geared toward addressing legitimate social aims. Haslanger's concept of gender and her proposed concept of race (which likewise highlights discrimination and differential social privilege) are meant to be "effective tools in the fight against injustice," and their development was guided by the "need to identify and explain persistent patterns of inequalities between females and males, and between people of different 'colors'" (Haslanger 2000, p.36).

At the same time, Haslanger's account has been criticized for maintaining that women are *by definition* those female persons who are subordinated. Jennifer Saul (2006), responding to Haslanger (2006) and her earlier writings, charges that Haslanger's account is not even acceptable to feminists as one of her primary target audiences (see also Mikkola 2009). Haslanger favours a society where there are no subordinated women, i.e., no women as defined by her. She thus is seen to commit herself to the social goal of the "elimination of women," a goal when stated in these terms "may well alienate many of those who would be most likely to support anti-oppression movements" (Saul 2006, p.139). Saul's central worry is that using a term like 'woman' with a meaning that departs from standard usage is bound to create confusion. Consequently, in this early commentary, Saul (2006) prefers to use 'woman' and 'man' as denoting biological sex (in line with what she considers ordinary use and devoid of social factors like subordination), indicating that she does not think that ordinary speakers even use 'gender' as a social category that is distinct from 'sex.'

To our minds, Saul’s perspective has problems, a discussion of which offers lessons for the project of conceptual engineering beyond the case of gender. First, Saul’s criticism of Haslanger focuses on terminology, on how to linguistically use a given term, and on communication across speakers (and the same holds for Mari Mikkola’s 2009 objections to Haslanger). This ignores the question of what *concepts* to use, where concepts are vehicles of thought—broadly understood as also motivating action—that can be employed by an individual regardless of communication by means of language. The issue is what overall set of concepts are needed within a larger community of agents (given their diverse legitimate aims), and by implication, what novel concepts may have to be developed. In their proposal of the project of conceptual ethics, Burgess and Plunkett (2013a) rightly assume that questions about what concepts to employ and questions about what terms to use to express them linguistically are separate issues.⁴ This is also something that Haslanger recognized:

At this point we should bracket the terminological issues and just consider whether the groups in question are the ones that are important to consider given the goals of our inquiry.

(Haslanger 2000, pp.46–47)

In our view, considerations about concepts are vital—even when the issue of terminology is disregarded—given that “our conceptual repertoire determines not only what we can think and say but also, as a result, what we can do and who we can be” (Burgess and Plunkett 2013a, p.1091). Indeed, as the previous section on scientific concepts has hinted at, a concept is meant for certain intellectual or practical purposes and thus to be used *in some contexts only*. A community and even one person can fruitfully employ a variety of different concepts depending on the context. This makes room for the possibility that Haslanger’s novel (or some similar)

⁴ “That we ought to use concept C does not yet settle how we should lexicalize it, for example.” (Burgess and Plunkett 2013a, p.1095)

concept of gender is fruitful, at least when the identification and explanation of gender-based discrimination is at stake, even if other cognitive contexts require different concepts of gender.⁵ Consequently, our recommendation is to first address questions about what concepts are fruitful, and only then to discuss the (admittedly difficult) question of what terms to use to express them, e.g., whether a newly engineered concept should be associated with an existing term, to which another concept is already tied, or whether to introduce a new term for this novel concept (see also McPherson and Plunkett this volume). (We will comment in the concluding section on what terminology may be best for public discourse despite our pluralistic approach to gender concepts.)

Second, even when side-stepping the domain of concepts and moving on to considerations about communication, while Saul is rightly worried about the possibility of misunderstandings, this may lead to a problematic preference for sticking to the common use of terms:

It seems to me that communication is difficult enough as it is, and that we should instead try to use ordinary terms in as ordinary a way as possible. (Saul 2006, p.141)

Although there are serious questions about how one can realistically effect a widespread change of common term use and when it is wise to attempt this, Saul's bias toward the status quo may be particularly precarious for *ordinary* terms, given that in some cases such term uses are highly problematic and should be reformed, e.g., the past practice to use 'rape' so as to not consider marital rape as such. In the context of concepts, such a bias is at odds with the very spirit of conceptual engineering and conceptual ethics, which endeavours not only to introduce

⁵ Although Saul (2006) acknowledges the possibility of using the term 'woman' with different meanings in different contexts, she rejects this option on grounds of misunderstanding in *communication across contexts*, and thereby fails to evaluate whether using Haslanger's concept can be fruitful in *some contexts of a person's thought and action*.

completely novel concepts, but also to abandon or transform existing concepts to the extent to which they are empirically flawed or unsuited for their intended purpose (for other reasons to discard a folk concept, see McPherson and Plunkett this volume).

We will get to the issue of concepts of gender and race embodying problematic empirical assumptions soon, but first address the political purpose for which Haslanger puts forward her ameliorative analysis. Saul does have this issue in view, and argues that even with her preferred option of using ‘woman’ and ‘man’ as denoting *biological* sex (and thus as synonymous to ‘female’ and ‘male,’ respectively), a *social* explanation of inequalities is possible:

The explanation of persistent inequalities between females and males would begin from the fact that females tend to be systematically subordinated to males. The next step would be to analyse this systematic subordination and how it is perpetuated. (Saul 2006, p.136)

However, Saul’s approach construes gender as a purely biological category and views pointing to the social factors underlying gender-based discrimination as a second step and thus as a *separate* issue.⁶ In contrast, Haslanger’s concept of gender rightly highlights that despite the biological aspects of gender, a proper understanding of the matter has to explicitly include that the gender differences at hand are due to social factors. There are many biosocial kinds that combine a mutual causal influence of more biological and more social factors. And if the *purpose* of a concept referring to such a kind is to be explanatory, a properly engineered concept has to include in its content all the relevant causal factors and how they are entwined.⁷ Thus, for the

⁶ Mikkola (2009, p.581) says something similar: “There is nothing in my proposal that prevents feminists from identifying and explaining persistent inequalities since this is a separate empirical task.” However, she never explains what this empirical task is separate from—certainly it is not separate from Haslanger’s agenda of providing a concept of ‘woman’ that identifies and explains persistent inequalities.

⁷ In the introduction we justified in general terms why a strongly externalist construal of concepts does not work for our agenda, and instead concepts have to be construed as embodying relevant empirical (or normative) beliefs.

purpose of accounting for inequalities across the sexes, Haslanger's concept of gender is superior to the concept of sex or a biological concept of gender as the one preferred by Saul (2006), even if Saul can in fact provide the social explanation by adducing additional (non-biological) concepts.

A case where not only the entwinement of more biological and more social factors matters to social-political aims, but where ordinary concepts can also embody problematic empirical assumptions, is *race*. Historical and some current conceptions of race assume racialism, in particular the idea that there are behavioural and cognitive differences between human races and that these are due to biological differences. Given that this is empirically false, Appiah (1996) has prominently argued that there are no races—because there is nothing in reality corresponding to this ordinary concept of race (see also Zack 1993). Others have instead opted for using a different concept of race that discards false beliefs, e.g., one that focuses on the cultural construction of race. As Mallon (2006) points out, the philosophers endorsing eliminativism, constructivism, and other rival positions on race actually agree on the basic empirical facts, and the preference for different positions hinges on normative considerations (see also Ludwig 2014).

Given our focus on the conceptual engineering aim of capturing race-based discrimination, what we want to highlight is the insight of Kaplan (2010) that even if there are *biological* differences among races in a country, these may well be due to *social* factors (see also Kitcher

Yet a much deeper failure to appreciate that conceptual engineering is not the acquisition of novel empirical knowledge by means of analyzing current concepts, but the incorporation of relevant content into a concept using *previously* acquired empirical knowledge, can be found in Mikkola (2009, p.580): “I am unconvinced that politically much, if anything, hangs on analysing [sic!] the concept *woman*. In fact, to claim that by discerning the conditions for satisfying *woman* the content of feminist policies is discovered, strikes me as extremely implausible.”

2007, p.315). His starting point is the partial success of race-based medicine, e.g., the drug BiDil recommended as a treatment to prevent heart failure in African Americans. This suggests the existence of medical and thus biological differences across some races, given that differential drug efficacy presupposes different physiological features in different individuals. Yet Kaplan argues that even if there are such differences, this does not entail that they are due to alleged genetic differences across races (as shown by the different health of African Americans and recent immigrants from Africa). Instead, in a context like the US, the physiological and health differences may very well be due to social discrimination, which affects diet, exposure to pollutants and toxins, and levels of stress experienced (a risk factor for hypertension and heart disease). A further point of his is that the label 'race-based medicine' erroneously suggests that this is to be dealt with as a medical (rather than primarily social) problem. But what matters most for our purposes is that the example of race reveals that some philosophical concepts that aim at explaining social differences (or at exposing social discrimination) have to capture the reciprocal influence of social and biological features.

A common motivation for overlooking the connection between the social and the biological is the spectre of biological determinism. Some discussions of sex and gender are also predicated on a nature-nurture dichotomy. The latter assumes that as one layer there is nature, which is unaffected by how nurture builds on it as a second layer. The dichotomy between the two alleged layers also takes for granted that it is meaningful to claim either that nature constrains nurture or that nurture is largely unconstrained by nature. The nature-nurture dichotomy, however, is empirically false, and many biologists have abandoned it on the more profound ground that it is a conceptually flawed and theoretically useless perspective (and instead have come to emphasize the concept of phenotypic plasticity and other notions capturing the entwined development and environment; Pigliucci 2001).

How to promote concepts that avoid false empirical beliefs (such as a nature-nurture dichotomy or biological determinism) among the general public is a difficult matter. Indeed, when anthropologists use the term ‘race’ at all, they usually use it in the context of cultural identification, as they are rightly worried that using ‘race’ in connection with biological (or at least genetic) features will trigger illicit connotations. Nevertheless, the lesson for the philosophical project of conceptual engineering is more obvious. Gannett (2010) points out that even discussions of race by philosophers have tended to be conducted in terms of social constructivism vs. biological realism (and a separation of the conceptual schemes of experts and laypersons), so as to result in a problematic “dichotomization of the biological and the social” (p.368). While there are legitimate concepts of race that focus on cultural factors, our discussion about biomedical differences across races being due to social discrimination shows the need for some concept of race that captures in an empirically adequate fashion how social and biological factors are in reality interrelated. The beliefs about race currently held across the general public of course fail to reflect this emerging empirical account, but the fact that ordinary beliefs are not excluded from being empirically flawed and potentially harmful—and may even be particularly prone to be so, as racist conceptions of race show—underscores yet again the problem with Saul’s (2006) recommendation of trying to use concepts with their ordinary meanings.⁸

⁸ Another instance of concepts embodying empirically flawed assumptions (regardless of whether this always aligns with ordinary meanings) is Saul’s suggestion to use ‘woman’ and ‘man’ as denoting biological sex. This assumes that these are the only biological categories and that there is a unique account of biological sex. Yet the diverse human conditions collectively called ‘intersex conditions’ shows not only that sex is not a binary category (and instead a spectrum), but also that sex-related biological features such as genes, chromosomes, hormones, internal / external sex organs, and secondary sex characteristics do not always align, where even one person can possess chromosomally male and female cells (Ainsworth 2015; see also Butler 1993; Kessler 1990).

Gender and the Inclusion of Trans Persons

Beyond the worry that a revised concept of gender like Haslanger's departs from ordinary use (which above we found not to be compelling), there are important issues to be addressed. For recent discussions of gender have emphasized the need to ensure that a concept of woman include trans women (Bettcher 2013). This is not only a problem for Haslanger's account (as we will address below), but Jennifer Saul likewise recognizes that her earlier approach (in Saul 2006) failed to include trans women because it favoured using 'woman' to denote those persons who are biologically female.⁹ Now Saul (2012) favours a contextualist approach, which (in addition to an analogous definition of 'man') construes the concept of woman as follows:

X is a *woman* is true in a context C iff X is human and relevantly similar (according to the standards at work in C) to most of those possessing all of the biological markers of female sex.

(Saul 2012, p.201)

In some contexts, the standards may indeed entail that the relevant similarity pertains to biological sex, but Saul discusses other similarity conditions. In this fashion, she can capture persons with intersex conditions as well as trans persons, where the latter fall under the gender category which with they identify.

At the same time, Saul has some misgivings about this contextualist approach, on the grounds that it is too flexible and may permit using 'woman' with any meaning. For instance, there are several situations where biological and other similarity conditions are operative according to which trans women are not 'women.' Given this, Saul worries that this makes a trans woman's assertion that she is a woman true only in *the specific context* in which she makes

⁹ While we previously objected to Saul's (2006) desideratum to use terms with their established, ordinary meanings, we also do not think that ordinary use would support Saul's earlier, exclusively biological construal of 'woman,' given that laypersons' actual use is more diverse and flexible, which often includes trans women.

this utterance, and thus true in an utterly trivial fashion (as opposed to it being a substantial, context-independent truth about this women's gender in line with her self-perception). The flipside of this issue is that also the statements of those lawmakers who claim trans women to not be women (and who pass laws that prohibit trans women from using women's washrooms) seem to come out as true. Saul's worry is that one may have to grant that in *these lawmakers' context* the standards are such that their biological construal of 'woman' obtains.

Saul sees the option of insisting that her own standards, rather than those of transphobic lawmakers, are the right ones. Yet she frames this approach as follows:

On my view of "woman," I cannot argue that the lawmakers are making a mistake about how the word "woman" works. But what I can do is argue that they are morally and politically wrong to apply the standards that they do. ... But we must recognize this claim for what it is: a moral and political, rather than merely linguistic, claim. (Saul 2012, p.204)

Saul correctly recognizes that moral and political considerations are involved; however, she seems to view them as separate from and something over and above language use. A dichotomy between concept use and moral-political values should not only be alien to philosophers engaged in the project of conceptual ethics (see also Diaz-Leon this volume; McPherson and Plunkett this volume; Plunkett 2015). As we have explained above, also scientists revise their language use and disagree on how to use a scientific term in part because of the values and scientific aims they favour, which can include environmental, application-related, and other practical aims.

Furthermore, there is the widespread phenomenon of ordinary discourse where a disagreement is not about the object being talked about, but about what concept should be used to describe the object. This negotiation about what particular concept (e.g., what construal of 'spicy') to use in a certain context has been dubbed 'metalinguistic negotiation' by David Plunkett and Tim Sundell (2013); and they argue that metalinguistic disagreements can be *substantial* disagreements (as

among other things they influence action, e.g., whether to add more spice).¹⁰ Metalinguistic negotiation is linguistic (or about how a certain word works, as Saul puts it), but at the same time based on aesthetic, moral, or political values.

In her response to Saul’s discussion, Esa Diaz-Leon (2016) rightly argues that opting for the employment of moral and political considerations regarding the use of ‘woman’ can also be seen “as a genuinely linguistic point” (p.248). The standards of similarity that are at work in a given context matter for Saul’s contextualism, yet “questions about the relevant standards might involve moral and political considerations (and in cases that concern the rights of trans women, will very likely do so)” (Diaz-Leon 2016, p.249). Diaz-Leon points to the distinction between attributor factors and subject factors that has been invoked in epistemic contextualism. In a situation where person *A* wonders whether or not subject *S* counts as knowing that *p*, attributor contextualism maintains that this is contingent on the context of knowledge attributor *A*, i.e., attributor factors determine the standards. In contrast, some have objected that instead it better be subject factors (the context of putative knower *S*) that are relevant for setting the standards of knowledge. Diaz-Leon suggests that the latter option—subject contextualism—should be used for the concept of ‘woman,’ in which case it is not the lawmakers’ context (or the context of anyone else who may make claims as to whether a trans woman as a woman) that matters, but the trans woman’s context:

according to subject-contextualism about *woman*, “X is a woman” is true iff X is human and relevantly similar to most females, where what counts as relevantly similar to most females

¹⁰ In the ‘Lessons from Scientific Concepts’ section we critically mentioned Chalmers and Jackson’s (2001) tenet that it is illicit to associate a term with a different concept (a situation which they frame as a ‘change of subject’). Yet such metalinguistic negotiation can very well be legitimate; in fact, the target of Plunkett and Sundell’s (2013) criticism is the idea that meaningful disagreement always presupposes that two speakers use the same concept (and make different claims with it).

depends on “objective” features of X’s context, including instrumental, moral, and political considerations having to do with how X should be treated (regardless of who utters the sentence or what their beliefs are). (Diaz-Leon 2016, p.251)

Diaz-Leon’s approach strikes us as basically correct, though we add in way of clarification that when person *A* uses a concept that refers to another person *S*, it cannot always be the case (or be an *a priori* matter) that it is the latter person’s context that is the relevant one. And to the extent that *S*’s context matters, it need not be her beliefs or values that settle the issue. For instance, a trans woman may happen to have a conception of ‘woman’ that diverges from the conception of other trans women (and other women in general) and an adoption of which would be morally and politically problematic in the given situation. Instead, in the case at hand (positions taken by lawmakers about trans women), what is at stake is whether trans women are treated equally to other women—an issue that *also* follows from the context of a transphobic lawmaker (the attributor context). Regarding the question of equal treatment, the proper social-political aim is that trans women are accorded the same rights as other women (regardless of whether given their personal values some lawmakers or trans women may disagree). Thus, the lesson is that the philosophical focus should be on the *relevant and legitimate aims* (which may not be the aims of either the attributor or the subject of an utterance), which must be identified and have to be justified as legitimate (even if they already happen to be agreed upon). We shall use this advice in the remainder of the section, in which we also highlight that a particular concept of ‘woman’ has to be geared to a specific aim.

The desideratum that trans persons ought to be fully included by a philosophical account of gender has recently been reiterated by Katharine Jenkins (2016). Her critical target is Haslanger’s earlier ameliorative concept of woman, and Jenkins argues that it excludes trans women by counting many trans women as men. The definition by Haslanger requires of a

‘woman’ that the person be “regularly and for the most part observed or imagined to have certain bodily features presumed to be evidence of a female’s biological role in reproduction”

(Haslanger 2000, p.42), yet Jenkins points to several cases where some trans women would not fall under this definition: she may be respected as a woman regardless of not being deemed to have a female’s reproductive role, she may not publicly present as a woman, or—particularly problematically—her public gender presentation is not respected by others as being a woman. To remedy this issue, Jenkins makes the useful distinction between two relevant concepts of gender. While the first one, *gender as class*, is basically Haslanger’s ameliorative concept, Jenkins puts forward her account of *gender as identity*, which is to properly include trans persons. In the next section, we will say more on the way in which both concepts of gender are needed, but now focus on the latter.

Jenkins puts forward the following definition of gender as identity (for the category of woman):

S has a female gender identity iff S’s internal ‘map’ is formed to guide someone classed as a woman through the social or material realities that are, in that context, characteristic of women as a class. (Jenkins 2016, p.410)

Although Jenkins makes the crucial claim that “this definition of gender identity entails that all trans women have a female gender identity” (p.413), in our view this entailment claim is highly dubious, given that Jenkins articulates her notion of an ‘internal map’ as follows:

On my definition, having a female gender identity does not necessarily involve having internalized norms of femininity in the sense of accepting them on some level. Rather, what is important is that one takes those norms to be relevant to oneself; ... Her experience of social and material reality includes navigating the norm that women should have hairless legs, even though she is not complying with it. (Jenkins 2016, p.411)

But even taking gender norms relevant to oneself (without necessarily complying with them) is too strong a condition. On Jenkins's account, a trans woman who happens to be oblivious of the norm that women should shave their legs is not a woman (and the same holds for cis women who are unaware of this particular norm). And from the perspective of the project of conceptual engineering and conceptual ethics, why is the inclusion of norms like shaving one's legs relevant to a trans-inclusive concept of woman in the first place?

The problem is not just that with leg-shaving Jenkins has used a poor example of a relevant norm. Making explicit that this norm is meant for gender identity in Western cultures or even using a different social norm would not help. In our view, the whole point of putting forward a concept of gender that is trans inclusive is the social-political aim that trans women (and also cis women) are socially accepted as the gender with which they identify, and have all the moral and legal rights corresponding to their gender. One's (sincere) self-identification as a woman should suffice for this, and one should not make social and legal recognition as a woman contingent on being aware of any gender-related norm, as Jenkins does. As an analogy, take party membership, for example, being a Republican in the US. Of course, Republicans tend to have many factual beliefs, political values, and social practices in common that form their political identity, and these shared features are important to sociologists and political scientists for predictive and explanatory purposes (predictions and explanations that are useful even if there are some Republicans that do not conform to the stereotype). However, Republicans who are untypical in terms of their beliefs and values can still be party members and have concomitant rights. For instance, being registered as a Republican voter (according to state guidelines) suffices for being eligible to vote in a Republican primary—no specific ideological test is required to possess this voting right.

In the case of gender, the fact that persons of one gender tend to have similar internal maps

and are aware that certain social norms and gender-related expectations apply to them is likewise relevant for explanatory purposes, and is an aspect of social-psychological gender identity that may indeed be relevant for *some* concept(s) of ‘gender.’ Endorsing such social norms is required by a strong ideological test, while merely being aware of the existence of these gender-related norms (as Jenkins envisions) can be dubbed a weak ideological test. However, for the purpose of a concept of gender (identity) that has the purpose of *guaranteeing gender-appropriate social recognition and rights* (and that can usefully complement Haslanger’s concept of gender as class), not even a weak ideological test should be required to count as a woman (or as a man). In addition to the concern of excluding trans women, recent female immigrants from other cultures may not be aware of various gender-related social expectations (e.g., shaving one’s legs in a Western culture) and not have them as part of their current internal map, yet this should be no grounds to deny them social recognition as women and the rights that other women have. In summary, for the specific social-political aim of achieving gender-appropriate recognition and rights, we advocate using a concept of gender that defines someone to be a ‘woman’ or ‘man’ solely in terms of this person’s sincere self-identification with a particular gender, for example, as long as someone identifies as belonging to the gender commonly denoted by the term ‘woman.’¹¹ More precisely, in many legal contexts ‘man’ and ‘woman’ are the only two categories, while for the purpose of social recognition more than two genders may well be needed—but in this case, the issue is also a person’s mere self-identification with a gender.

¹¹ McKittrick (2007, p.141) wonders about a proposal like ours: “Perhaps having a female gender identity supervenes on the psychological property of having a strong and persistent belief that you are a woman. But again, that merely pushes back the question: What exactly is it that you believe about yourself?” Here our analogy with party membership is instructive, where all that is cognitively *required* is that one identify as belonging to a collection of individuals picked out by such a *label* as ‘Republican’ or ‘women.’

Strategic Conceptual Engineering

It is useful to view a concept as a tool that serves certain epistemic, social, and other aims (Brigandt 2011; Burgess and Plunkett 2013b; McPherson and Plunkett this volume; Prinzing 2017). While such aims are sometimes implicit in how a concept is used and how it is revised, for the purpose of deliberate and effective conceptual engineering our discussion has repeatedly emphasized the need to articulate the aim at stake and to ensure that a concept employed actually embodies those empirical facts that are conducive to this aim. This is admittedly easier said than done. One hurdle is justifying that something is a *legitimate* aim. Not only were in the past social aims deemed to be legitimate that are nowadays repudiated, but disagreement about what the relevant aims are exist even within contemporary academic subcommunities. While we discussed several scholars (Saul, Diaz-Leon, and Jenkins) who endorse the desideratum that a concept of ‘woman’ include trans women, there are unfortunately feminists who oppose this based on a trans-exclusive stance on feminist identity politics (Heyes 2006).

Moreover, it can be difficult to assess whether several related aims better be viewed as separate in that they cannot all be fully met by one concept. For instance, when putting forward her concept of gender, Sally Haslanger (2000) singles out the need to “identify and explain persistent inequalities” (p.36). But these could be viewed as two distinct aims, and a concept that merely identifies patterns of discrimination may not embody the relevant psychological and social factors that actually explain these patterns. More importantly, beyond description and explanation—which could be viewed as largely epistemic aims—Haslanger explicitly adopts the social-political aim of fighting oppression, by means of providing conceptual “tools in the fight against injustice” (p.36). But as Jennifer Saul’s (2006) criticism highlights, if those in subordinated positions rely on a concept that offers a causal explanation of systematic

discrimination (even when it highlights the social nature thereof), this may very well motivate them to “become trapped in a feeling of powerless to change their own fates” (p.138). This raises the difficult question of whether the aim of explaining discrimination and of opposing discrimination have sometimes—*though not always*—to be addressed separately when engineering concepts. In addition to identifying and explaining inequalities, Haslanger lists the “need for accounts of gender and race that take seriously the agency of women and people of color of both genders” (2000, p.36), but it is doubtful that her definitions of gender and race actually capture the relevant agency, so this may be yet another aim that requires a separate treatment. We will return to this difficult issue below by opting to separate certain social aims insofar as quite different concepts of gender are needed to address each of them.

Regarding the question of how to construe race, it is clear that a traditional biological conception that would posit significant phenotypic differences between races and take them to be due to genetic differences between races is empirically false (Hochman 2013; Pigliucci 2013; Rose et al. 2009; Yudell et al. 2016). Moreover, grouping humans into races is not even a major classificatory or explanatory aim for contemporary population genetics (Kopec 2014; Templeton 2013). A useful concept of race will therefore ensure to include the social factors that influence how persons come to be deemed to be of a certain race (e.g., persons of biracial ancestry considered to be black), how racial self-identity is generated, how a race is perceived by others, and how persons from different races are treated within society, so as to track the social dynamics of race. Despite the largely cultural nature of race—which suffices for many epistemic and social purposes where a concept of race is employed—our discussion has pointed out that biological features enter not only in the trivial sense of skin colour and other phenotypic features being socially conceptualized. The way that social discrimination can have actual physiological effects that result in predispositions to disease matter if the aim is to offer a thorough explanation

of social dynamics, and at least when an explanation of health disparities is sought after. A concept of race that highlights social impacts on biological features is also conducive to the social aim of reducing discrimination, and of opposing erroneous biological determinist conceptions (which have been promoted by the idea of race-based medicine).

To be sure, these race-related health disparities hold for the context of the United States; and philosophical commentators have indicated that race operates differently and has another overall prominence in many other countries (Alcoff 2006), for instance, when even in biomedical contexts the notion of ethnicity is more relevant (Gannett 2010; Ludwig 2014). The best concept of race to employ in some Caribbean or South American contexts such as Cuba or Brazil may well be different from one geared toward conditions in the US.¹² Different societies may not only *empirically* differ in their social processes, but their different identity politics concerns may result in different legitimate *aims* that a particular concept of race has to serve. Thus, it appears that there is no unique concept of race that could capture all cultural contexts and serve all epistemic and social aims.

Some may wonder whether a concept that includes *all* biological and social features and distinguishes how they operate in different cultural (or historical) contexts can function as an all-purpose concept after all. We doubt that this is an option even for a concept of race. One reason is that relative to one explanatory aim, a concept should only include what is explanatorily

¹² For similar reasons, race and gender cannot be treated in a completely analogous fashion (Heyes 2006). The situation that both race and gender are widely held to be social constructions should not obscure the fact that they do not socially function in the same way even within the same sociohistorical context. In North America, gender is often treated by theorists as an individual property of the body or of a person (centering on one's psychological identity and social experiences), whereas race clearly implicates ancestry and cultural history. In such contexts, a properly engineered concept of race would do well to take heritage into account (while making room for the possibility of some people adapting a racial reception that disavows or ignores a part or parts of their ancestry).

relevant and thus not adduce any feature (no matter how true) that is irrelevant to the phenomenon to be explained. Therefore, an explanatory concept must exclude some aspects of reality, which however have to be included with respect to some other explanatory aim. In the context of scientific concepts we have already covered that biologists use, for instance, different species concepts because these answer to different concrete biological aims.

In any case, a strong case against all-purpose concepts can be made in the case of *gender and political aims*. We call not only for a plurality of concepts of gender, but for what we dub *strategic conceptual engineering*, which is the strategic employment of a concept for certain epistemic or social aims, combined with the understanding that this concept has a limited scope of application and the openness to use another concept with respect to other aims. In what follows, we distinguish three different social-political aims, and argue that different concepts of gender are needed to meet each aim, respectively.

(1) *Identifying and explaining gender-based discrimination*. Haslanger's definition has been criticized, where the most noteworthy point has been that it fails to count trans women as women. Yet this tension can be resolved if in line with the idea of strategic conceptual engineering one views Haslanger's concept as restricted to particular aims.¹³ At the very least, Haslanger's proposal, which highlights the oppression of women (due to being women), was calculated to be strategically useful when she put it forward, given that Haslanger reacted to scepticism within the feminist scholarly community about the relevance of even articulating a

¹³ When distinguishing the concepts of gender as class and gender as identity, Jenkins (2016) charges that Haslanger, although acknowledging different concepts of gender, still privileges her ameliorative account (i.e., gender as class). This strikes us as false, given that Haslanger made plain that she views any concept of gender as tied to certain purposes: "Let me emphasize at the beginning that I do not want to argue that my proposals provide the *only* acceptable ways to define race or gender; in fact, the epistemological framework I employ is explicitly designed to allow for different definitions responding to different concerns." (Haslanger 2000, p.36)

concept of woman (Alcoff 1988; Heyes 2000; Stone 2004), by providing a conceptual tool for the aim of uniting feminist activism. An approach similar to Haslanger's is in our view also fruitful for the aim of identifying gender-based discrimination or of explaining the social workings of this discrimination (so as to indicate how it could be remedied), provided that the following constructive suggestions of ours are being used.

First, while Haslanger's ameliorative definition—and the subsequent criticism—is actually about the concept of 'woman' (and 'man'), we suggest that (with respect to the aim of identifying discrimination) the focus should be on the concept of *gender*, of which one can offer a revised, ameliorative definition without also redefining the terms 'woman' and 'man.' An advantage of this is that it shifts the focus *away* from questions about the *extension* of concepts, such as the question of whether there are females that are not discriminated against and thus not women on Haslanger's definition.¹⁴ Sometimes the specific extension of a concept does matter—as in the case of a concept of woman that attributes rights and social recognition to those classified as women (to which we turn below). But concepts may have *other* virtues (e.g., exhibiting discrimination's systemic nature) *than classificatory functions*. An account in the present context should be open to the boundaries of different genders being vague, to some persons being of more than one gender, and to there being more than two genders. An account of 'gender' is definitely not committed to any of this (while substantial expectations may obtain for a proposed definition of 'woman' and 'man'), and can even make room for the number of different genders varying across cultural history. Beyond the (immediate) aim of identifying

¹⁴ Recognizing that her account of 'woman' raises this question, Haslanger (2000) is compelled to respond that she "not convinced that there are many cases (if any) of the latter" (females who are not subordinated for being considered female), while also stating that her "analysis is intended to capture a meaningful political category for critical feminist efforts, and non-oppressed females do not fall within that category" (p.46).

discrimination, our approach would also be advantageous for Haslanger's ultimate aim of eliminating such social gender differences, as this agenda is now framed in terms of the elimination of 'gender' rather than in terms of the elimination of 'women'.

Second, we advocate the use of *relational accounts* of gender (and race), in which the construal of one gender makes reference to other genders or to the properties used to characterize other genders (and in which different races are understood in relation to each other). In contrast, the proposals by Saul we have mentioned, including her contextualist definition of 'woman' (Saul 2012), do not make reference to 'man' (and the same holds for Jenkins 2016 construal of gender as class). Even Haslanger's account of 'woman' is not explicitly relational and instead her definition of 'woman' focuses on intrinsic features of this category. A general drawback of using only intrinsic features is that this way one has a hard time capturing variation within any category, and in the case of gender variation is essential because "there is no one 'women's social role'" (Saul 2012, p.197). A relational account points to the *differential* social treatment of genders. It neither has to claim that all women are subordinated—as Haslanger's definition problematically does by excluding non-subordinated females—nor does it have to articulate what this allegedly shared social subordination consist of, e.g., the "certain kinds of social position" to which Haslanger appeals in condition (ii) of her definition (which we restated in an earlier section). Instead, a relational construal can indicate that *compared to* men, women tend to be discriminated against because of their gender.

In our view, the decisive advantage of a relational approach is its ability to capture *intersectionality*, i.e., the way in which several social identities (gender, race, class, sexual orientation, trans status, etc.) intersect for a particular person so as to aggravate or attenuate

oppression and privilege (Crenshaw 1989, 1991).¹⁵ When focusing on ‘gender’ rather than ‘woman’ and articulating gender as an axis of discrimination, this engineered concept flags that gender is *only one* axis of discrimination, and is open to there being many others dimensions of discrimination (and other salient features related to social differences) beyond gender, including race and sexual orientation.¹⁶ Recall that this concept of gender is to answer to the aim of identifying (and possibly explaining) gender-based discrimination, which for empirical and political reasons has to comport with intersectionality. A relational account of gender highlights the *organized and systemic* nature of gender-based discrimination, without claiming that every woman is oppressed and that gender is the only dimension of discrimination.

(2) *Assigning legal rights and ensuring gender-appropriate social recognition.* To be sure, a relational concept of gender fails to delineate exactly which persons are of a certain gender, which is not relevant for the purpose of identifying and explaining society-wide discrimination, but is indeed indispensable for the aim of ensuring gender-based legal rights and social recognition in line with someone’s gender identity. With respect to this aim, a *different* concept of gender has to be employed, that entails a specific extension of ‘woman’ and other gender categories. Jenkins (2016) did put forward an account that is meant to ensure that trans women count as women. However, we have argued that it fails to do so. For by insisting that one needs

¹⁵ Haslanger has intersectionality concerns clearly in view, regardless of whether her particular definitions of ‘man’ and ‘woman’ fully comport with this. For instance, Jones (2014) questions whether indigenous Australian men (who are not privileged by any standard) count as ‘men’ on Haslanger’s definition, thereby also touching upon questions about the *extension* of concepts such as ‘man’ and ‘woman’ from which we have tried to move away. (A further discussion that is critical of Haslanger but still focuses exclusively on the extensions of concepts is Mikkola 2009.)

¹⁶ Although our below concept of ‘woman’ that is to assign rights (and therefore has to include trans women) is dedicated to trans issues, this does not mean that the present concept of gender can acknowledge trans status as yet a further axis of discrimination that is distinct from gender.

to be aware of gender-specific social expectations, Jenkins's definition makes an individual person's gender contingent on an ideological test imposed by the larger culture. This is not only irrelevant, but harmful given that it would not grant gender-based legal rights and social recognition of a person's chosen gender to someone who is unaware of some social expectations. In contrast, for the aim of ascribing rights and social recognition, in the previous section we proposed a concept of gender according to which one's sincere belief that one is of a particular gender suffices. Although a woman's psychological identity includes more substantial beliefs about what it means to be a woman, the belief that she belongs to the gender category termed 'woman' is all that is required for her to be recognized and treated accordingly.

(3) *Empowering persons by means of their gender identity.* A further social aim we have not discussed yet is empowering groups of persons, for instance women. This also requires a specific, strategic concept of gender. Our first concept of gender (the concept in the spirit of Haslanger's ameliorative account), when not only identifying but also offering a more detailed explanation of the social workings of gender-based discrimination, may point to public policy means of reducing discrimination within an overall society. However, this may not be helpful for empowering individual women. For this purpose, the best solution may be a concept of gender that incorporates substantial psychological aspects of gender identity, provided they are positive features conducive to personal empowerment (rather than internalized harmful stereotypes). Such psychological aspects of gender identity were deliberately left out from our second gender concept as self-identification with a particular gender, so *this* concept of gender is clearly unsuitable for the purpose of personal empowerment. A concept serving the aim of an individual's personal and social empowerment needs to include relevant gender-related psychological resources and social affordances. A person should be able to pick and choose amongst a variety of (non-binary) gender associated behaviours and activities in order to

construct one's own particular gender attributes that enable agency. A clear limitation is that the psychological and social features relevant to a particular individual do not hold for all persons. Indeed, discussions on intersectionality have already shown that even different persons belonging to one gender (e.g., all who identify as 'women' on the second gender concept) need different empowerment strategies, so that it is doubtful that the task can be achieved by a single psychological identity concept, no matter how flexible it is. But the employment of different psychological identity concepts by different groups of persons is something that our agenda of strategic conceptual engineering welcomes.

Conclusion

In this essay we have put forward the agenda of strategic conceptual engineering, which in addition to the development of novel concepts consists in the employment of a variety of concepts, such as several concepts of race, where each such concept is geared toward a specific epistemic or social aim, while in other contexts the use a different concept is more fruitful. We have illustrated this approach by arguing that at least three concepts of gender are needed, even when only social aims are in view. With respect to the *first* aim of identifying and explaining gender-based inequities, a concept similar to Haslanger's ameliorative account is needed; although instead of focusing on the extension of 'woman' we suggested a relational construal of 'gender' which highlights differential social treatment across genders and thereby points to gender as one (though not the only one) axis of discrimination. A *second* vital aim is to assign gender-based legal rights and social recognition in line with one's chosen gender, so that such a concept must be trans-inclusive and offer a clear-cut account of the extension of 'woman' and other gender terms. In contrast to Jenkins's proposal, we argued that for the purpose of ensuring rights and social recognition, awareness of gender-related social norms and other substantial

psychological aspects of one's gender identity have to be omitted; and instead, one's sincere belief to be of a particular gender (e.g., the category labelled 'women') suffices to count as being of that gender. The *third* social aim is the empowerment of persons by means of their gender identity. Now a further concept of gender is needed, which does include psychological features relevant to personal empowerment and awareness of one's social resources, where we acknowledged that even relative to this aim different concepts may be needed given that different groups of persons have different social experiences and occupy different social situations and thus may have to use different empowerment strategies.

Beyond the specific case of gender, our strategic conceptual engineering diverges from other general approaches. In particular, it goes in several respects beyond how the known phenomenon of *semantic contextualism* is often conceived. First, strategic conceptual engineering includes the creation of completely novel concepts and meanings. Furthermore, it importantly articulates that the 'context' that determines which meaning to use is specifically the epistemic or social aims at hand. And third, whereas Saul's (2012) contextualism assumes a unified definition of 'woman' across all contexts (in terms of some similarity to most biological females, where only the specific similarity metric differs across contexts), our three significantly distinct concepts of gender make plain that strategic conceptual engineering is open to different contexts requiring completely different concepts. As previously mentioned, we do not have a conclusive account of concept individuation (and for our agenda it is more important to adjudicate whether a new conceptual variant—regardless of whether it qualifies as a different concept—is an improvement). Yet paying attention to the aims of concept use (in addition to a contentious similarity of conceptual content) also contributes to the question of concept individuation: If one but not the other concepts of gender is in a position to meet a given social-political aim, this is a reason to regard these three concepts as *relevantly* different (at least for this concrete case of

conceptual engineering). For instance, our second concept of gender was put forward precisely because the first one (building on Haslanger's definition) does not specify someone's particular gender category in line with their self-identification (and thus this concept would neither be trans-inclusive nor serve the purpose of assigning gender-based legal rights and social recognition). Conversely, a concept in terms of one's self-identification with a certain gender category is not in a position to provide a causal explanation of how gender functions as one axis of society-wide discrimination.

Our approach has also the potential to enrich philosophical views of concepts in general. Discussions in the philosophy of mind and language commonly concern the role that conceptual content has for determining the concept's extension, i.e., they focus on a concept's satisfaction conditions. When reflecting on some criticisms of Haslanger's account (driven by the question of who would fall under 'woman'), we have argued that (in this specific context) such considerations about the extension of concepts are actually a red herring, given that some concepts do not serve the aim of classification (or of assigning rights to a clearly delineated group of individuals), but may serve the aim of causal explanation (e.g., of discrimination within society). Thus, concepts should not only be philosophically studied in terms of their extensions and satisfaction conditions, but also in terms of the way in which the content embodied in a concept supports explanatory or moral reasoning.

The topic of our discussion was concepts as vehicles of thought which also motivate action. An issue we have not covered is that the promotion of a useful concept among a wider group of individuals (e.g., for political purposes or empowering others) requires that a concept be communicated, which makes it necessary to lexicalize it by using some term that expresses this concept. Although one option is to use a single term such as 'gender' while having its meaning vary across contexts, we have already encountered the worry that this may hamper

communication across persons. Mikkola (2009) objects to Haslanger's ameliorative account of gender on the grounds that its use by feminists would only confuse ordinary speakers. But this assumes a strict separation between the language use of 'feminists' and 'ordinary speakers',¹⁷ as if either of these groups was not internally diverse regarding its language and concept use. These groups are also overlapping; and in our view, it is not implausible that a person can use our second or third meaning of gender (which takes a first-person view and is of benefit to oneself), while *also* employing the first meaning of gender (which partially takes a third-person view and is most fruitful in thinking about the situation of various persons of one's gender), at least in other contexts. Generally, common language already permits a good deal of flexibility, where a word is used with somewhat varying meanings, which need not conflict in the aspects relevant to a communicative situation, or where the context disambiguates sufficiently to not hinder discourse.

To be sure, there are drawbacks with expressing several meanings by means of an established term, given that associations tied to one (entrenched) meaning may carry over to another meaning (McPherson and Plunkett this volume). Yet a more compelling reason than confusion across speakers is political consequences. Despite our resolute pluralism on the level of concepts, we acknowledge that on the terminological level one meaning of 'gender' may often have to prevail in public discourse (and different words may have to be found for the other meanings). Among the three purposes that concepts of gender may serve, currently the politically most consequential agenda is to ensure legal rights and social recognition, as shown by efforts to

¹⁷ "Quite simply, if feminists appropriated Haslanger's gender terms, this would create linguistic confusion between them and ordinary speakers ... achieving this task would be hugely difficult if feminists appropriated Haslanger's gender terminology because it complicates communication between them and ordinary language users." (Mikkola 2009, p.569)

publicly misgender trans persons, which would have major practical consequences in the case of successful legal measures to deny access to public facilities such as bathrooms. Thus, to the extent to which existing terms such as ‘gender’ and ‘woman’ need to be associated with a prioritized meaning, it would be our second concept of gender as one’s self-identification with a gender category.

Note that even such a more monistic use of the term ‘gender’ diverges from how some persons ordinarily use the term—our self-identification concept of gender definitely is not about someone’s biological sex at birth. Generally, the point of conceptual engineering and conceptual ethics is to improve some concepts that are currently used. Not only does this make it unavoidable that a term is used with its current meaning while some (also) use it with a revised meaning, but the advocacy for a politically more appropriate meaning of a traditional term will always generate social friction. The widespread use of such a revised meaning has to be seen as a political ideal, which can only be achieved by a gradual, arduous process.

Acknowledgements

We thank the participants of the June 2016 ‘Conceptual Ethics and Conceptual Engineering’ workshop in Oslo for their comments on our paper, and Herman Cappelen for the organization and funding of the workshop. We are especially grateful to David Plunkett and Herman Cappelen for detailed comments on a previous version of this essay. Ingo Brigandt’s work was also supported by the Social Sciences and Humanities Research Council of Canada (Insight Grant 435-2016-0500).

References

- Ainsworth, Claire. 2015. "Sex redefined. The idea of two sexes is simplistic. Biologists now think there is a wider spectrum than that." *Nature* 518:288-291.
- Alcoff, Linda. 1988. "Cultural feminism versus post-structuralism: the identity crisis in feminist theory." *Signs* 13:405-436.
- Alcoff, Linda Martín. 2006. "Latinos and the categories of race." In *Visible Identities: Race, Gender, and the Self*, 227-246. New York: Oxford University Press.
- Appiah, K. Anthony. 1996. "Race, culture, identity: misunderstood connections. Part 1: Analysis: against races." In *Color Conscious: The Political Morality of Race*, edited by K. Anthony Appiah and Amy Gutmann, 30-74. Princeton: Princeton University Press.
- Bach, Theodore. 2012. "Gender is a natural kind with a historical essence." *Ethics* 122:231-272.
- Bettcher, Talia Mae. 2013. "Trans women and the meaning of 'woman'." In *Philosophy of Sex: Contemporary Readings. Sixth Edition*, edited by Nicholas Power, Raja Halwani, and Alan Soble, 233-250. Lanham: Rowman & Littlefield.
- Brigandt, Ingo. 2003. "Homology in comparative, molecular, and evolutionary developmental biology: the radiation of a concept." *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 299B:9-17.
- Brigandt, Ingo. 2010. "The epistemic goal of a concept: accounting for the rationality of semantic change and variation." *Synthese* 177:19-40.
- Brigandt, Ingo. 2011. "Natural kinds and concepts: a pragmatist and methodologically naturalistic account." In *Pragmatism, Science and Naturalism*, edited by Jonathan Knowles and Henrik Rydenfelt, 171-196. Frankfurt am Main: Peter Lang.
- Brigandt, Ingo. 2012. "The dynamics of scientific concepts: the relevance of epistemic aims and values." In *Scientific Concepts and Investigative Practice*, edited by Uljana Feest and

- Friedrich Steinle, 75-103. Berlin: de Gruyter.
- Brigandt, Ingo. 2013. "A critique of David Chalmers' and Frank Jackson's account of concepts." *ProtoSociology* 30: 63-88.
- Brigandt, Ingo. 2015. "Social values influence the adequacy conditions of scientific theories: beyond inductive risk." *Canadian Journal of Philosophy* 45:326-356.
- Burgess, Alexis, and David Plunkett. 2013a. "Conceptual ethics I." *Philosophy Compass* 8:1091-1101.
- Burgess, Alexis, and David Plunkett. 2013b. "Conceptual ethics II." *Philosophy Compass* 8:1102-1110.
- Butler, Judith. 1990. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.
- Butler, Judith. 1993. *Bodies That Matter: On the Discursive Limits of "Sex"*. New York: Routledge.
- Chalmers, David J., and Frank Jackson. 2001. "Conceptual analysis and reductive explanation." *Philosophical Review* 110:315-360.
- Crenshaw, Kimberle. 1989. "Demarginalizing the intersection of race and sex: a black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics." *University of Chicago Legal Forum* 1989:8.
- Crenshaw, Kimberle. 1991. "Mapping the margins: Intersectionality, identity politics, and violence against women of color." *Stanford Law Review* 43:1241-1299.
- Diaz-Leon, Esa. 2016. "Woman as a politically significant term: a solution to the puzzle." *Hypatia* 31:245-258.
- Diaz-Leon, Esa. this volume. "Descriptive vs. ameliorative projects: the role of normative considerations." In *Conceptual Ethics and Conceptual Engineering*, edited by Alexis

- Burgess, Herman Cappelen, and David Plunkett. Oxford: Oxford University Press.
- Douglas, Heather E. 2009. *Science, Policy, and the Value-Free Ideal*. Pittsburgh: University of Pittsburgh Press.
- Feyerabend, Paul. 1962. "Explanation, reduction, and empiricism." In *Scientific Explanation, Space, and Time*, edited by Herbert Feigl and Grover Maxwell, 28-97. Minneapolis: University of Minnesota Press.
- Gannett, Lisa. 2010. "Questions asked and unasked: how by worrying less about the 'really real' philosophers of science might better contribute to debates about genetics and race." *Synthese* 177:363-385.
- Haslanger, Sally. 2000. "Gender and race: (What) Are they? (What) Do we want them to be?" *Noûs* 34:31-55.
- Haslanger, Sally. 2004. "Future genders? Future races?" *Philosophic Exchange* 34:1.
- Haslanger, Sally. 2005. "What are we talking about? The semantics and politics of social kinds." *Hypatia* 20:10-26.
- Haslanger, Sally. 2006. "What good are our intuitions?" *Aristotelian Society Supplementary Volume* 80:89-118.
- Heyes, Cressida J. 2000. *Line Drawings: Defining Women through Feminist Practice*. Ithaca: Cornell University Press.
- Heyes, Cressida J. 2006. "Changing race, changing sex: the ethics of self-transformation." *Journal of Social Philosophy* 37:266-282.
- Hochman, Adam. 2013. "Against the new racial naturalism." *The Journal of Philosophy* 110:331-351.
- Jackson, Frank. 1998. *From Metaphysics to Ethics: A Defense of Conceptual Analysis*. Oxford: Oxford University Press.

- Jenkins, Katharine. 2016. "Amelioration and inclusion: gender identity and the concept of woman." *Ethics* 126:394-421.
- Jones, Karen. 2014. "Intersectionality and ameliorative analyses of race and gender." *Philosophical Studies* 171:99-107.
- Kaplan, Jonathan M. 2010. "When socially determined categories make biological realities." *The Monist* 93:283-299.
- Kessler, Suzanne J. 1990. "The medical construction of gender: case management of intersexed infants." *Signs* 16:3-26.
- Kitcher, Philip. 1984. "Species." *Philosophy of Science* 51:308-333.
- Kitcher, Philip. 2001. *Science, Truth, and Democracy*. Oxford: Oxford University Press.
- Kitcher, Philip. 2007. "Does 'race' have a future?" *Philosophy & Public Affairs* 35:293-317.
- Kopec, Matthew. 2014. "Clines, clusters, and clades in the race debate." *Philosophy of Science* 81:1053-1065.
- Kuhn, Thomas S. 1962. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Ludwig, David. 2014. "Hysteria, race, and phlogiston. A model of ontological elimination in the human sciences." *Studies in History and Philosophy of Biological and Biomedical Sciences* 45:68-77.
- Mallon, Ron. 2006. "'Race': Normative, not metaphysical or semantic." *Ethics* 116:525-551.
- McKittrick, Jennifer. 2007. "Gender identity disorder." In *Establishing Medical Reality: Essays in the Metaphysics and Epistemology of Biomedical Science*, edited by Harold Kincaid and Jennifer McKittrick, 137-148. Dordrecht: Springer.
- McPherson, Tristram, and David Plunkett. this volume. "Conceptual ethics and the methodology of normative inquiry." In *Conceptual Ethics and Conceptual Engineering*, edited by Alexis

- Burgess, Herman Cappelen, and David Plunkett. Oxford: Oxford University Press.
- Mikkola, Mari. 2009. "Gender concepts and intuitions." *Canadian Journal of Philosophy* 39:559-583.
- Pigliucci, Massimo. 2001. *Phenotypic Plasticity: Beyond Nature and Nurture*. Baltimore: Johns Hopkins University Press.
- Pigliucci, Massimo. 2013. "What are we to make of the concept of race? Thoughts of a philosopher–scientist." *Studies in History and Philosophy of Biological and Biomedical Sciences* 44:272-277.
- Plunkett, David. 2015. "Which concepts should we use?: Metalinguistic negotiations and the methodology of philosophy." *Inquiry* 58:828-874.
- Plunkett, David. 2016. "Conceptual history, conceptual ethics, and the aims of inquiry: a framework for thinking about the relevance of the history/genealogy of concepts to normative inquiry." *Ergo* 3:27-64.
- Plunkett, David, and Tim Sundell. 2013. "Disagreement and the semantics of normative and evaluative terms." *Philosophers' Imprint* 13:23.
- Prinzing, Michael. 2017. "The revisionist's rubric: conceptual engineering and the discontinuity objection." *Inquiry*. doi:10.1080/0020174x.2017.1385522
- Richard, Mark. this volume. "Conceptual evolution." In *Conceptual Ethics and Conceptual Engineering*, edited by Alexis Burgess, Herman Cappelen, and David Plunkett. Oxford: Oxford University Press.
- Rose, Steven, Stephen Ceci, and Wendy M. Williams. 2009. "Should scientists study race and IQ?" *Nature* 457:786-789.
- Roth, V. Louise. 1991. "Homology and hierarchies: problems solved and unsolved." *Journal of Evolutionary Biology* 4:167-194.

- Saul, Jennifer. 2006. "Gender and race." *Aristotelian Society Supplementary Volume* 80:119-143.
- Saul, Jennifer. 2012. "Politically significant terms and philosophy of language: methodological issues." In *Out from the Shadows: Analytical Feminist Contributions to Traditional Philosophy*, edited by Sharon Crasnow and Anita Superson, 195-216. Oxford: Oxford University Press.
- Scharp, Kevin. 2013. *Replacing Truth*. Oxford: Oxford University Press.
- Stone, Alison. 2004. "Essentialism and anti-essentialism in feminist philosophy." *Journal of Moral Philosophy* 1:135-153.
- Templeton, Alan R. 2013. "Biological races in humans." *Studies in History and Philosophy of Biological and Biomedical Sciences* 44:262-271.
- Wagner, Günter P. 1989. "The origin of morphological characters and the biological basis of homology." *Evolution* 43:1157-1171.
- Yudell, Michael, Dorothy Roberts, Rob DeSalle, and Sarah Tishkoff. 2016. "Taking race out of human genetics." *Science* 351:564-565.
- Zack, Naomi. 1993. *Race and Mixed Race*. Philadelphia: Temple University Press.