CONCEPTUAL ENGINEERING AND SUBJECT CONTINUITY

By

ZIYU WANG

Master of Engineering in Civil Engineering

Iowa State University

Ames, Iowa

2016

Bachelor of Science in Civil Engineering

Iowa State University

Ames, Iowa

2014

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Thesis Approved:		
	Doren Recker	
	Thesis Adviser	
	Eric Reitan	
	Heather Stewart	

Name: ZIYU WANG

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Abstract: Conceptual engineering, generally conceived, is the practice of changing the meaning of a term with respect to some identifiable purposes that can explain why certain changes are necessary. Conceptual engineering is often also called revisionary analysis. The idea is the same, we engineer and revise the old meaning so the purposes that merit the change can be fulfilled. But this practice has drawn criticism for changing the subject. Strawson (1963)'s accusation is particularly prominent. He thinks that if we change the meaning of a term, we necessarily change the set of entities (or extension) it picks out, and as a result, the subject. However, his subject-change view of revisionary analysis cannot make sense of the cases where genuine meaning replacement happens without changing the subject: for instance, 'whales' used to mean 'a kind of fish' but now it means 'a kind of mammal'; the meaning change is significant, but the subject remains stable. To accommodate those cases, I think a different subject-change view can be formulated that argues not if revisionary analyses necessarily change the subject, but that they are likely to. I find many accounts of subject continuity fall short of refuting the reformed version. Since I think subject change is a fair criticism for revisionary analysis, I will argue a case that directly repudiate it. I think there are three markers that revisionary analyses have that make it likely that they are on topic: (1) metalinguistic disagreements between the old and new usage can be settled based on some dimension of evaluations; (2) revisionary analysists are on good epistemic ground by proposing the meaning change; and (3) they consciously bring about and maintain such meaning changes. I conclude that this approach is preferable in answering the challenge by the reformed subject-change view than the alternative accounts.

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CHAPTER I

INTRODUCTION

We think about and interact with the world by first representing it in a certain way, and one of the most fundamental representational devices we use is concept. It aids us in our common everyday communication, worldview building and philosophical and scientific theorizing. To successfully fulfil its role in these essential aspects of our lives, concepts are often subject to change as the world keeps turning its wheels. Conceptual engineering is thus an umbrella phrase that refers to the phenomenon of conceptual change, and if we take concepts to be meanings of words, conceptual engineering concerns meaning change.

A lot of the times, meaning/conceptual change has a purpose. If there are defects with respect to our current terms and concepts, be it feeble in bringing social progress, or inherently incoherent as to make our talk contradictory, or hindering our efforts in the better understandings of the world, we ought to seek ways to make changes and improve on those terms and concepts to meet our ends. We thus design and give old words new meanings or devise new words with new meanings to talk about things we never talked about before. This process is hardly a one-time deal, like building a bridge that requires long term maintenance, it is in constant flux of revision and change that demand our continuous attentions.

This activity of improving our concepts and meanings of terms is often called the revisionary analysis. One prominent example found in early conceptual engineering literature is Carnap's notion of 'explication'. He writes: 'The task of explication consists in transforming a given more

or less inexact concept into an exact one or, rather in replacing the first by the second' (Carnap 1950: 3). Here because of the defect, the 'inexactness', we should make better the concept by ridding it. A similar remark about revisionary analysis is also visible in Quine's Word and Object: 'We fix on the particular functions of the unclear expression that make it worth troubling about, and then devise a substitute, clear, and couched in terms of our liking, that fills those functions' (Quine 1960: 258-9). Revisionary analysis thus goes beyond the descriptive element of the terms and concepts and makes normative endorsement that we should make them better if we could.

However, for many philosophers, the aim of conceptual analysis is never about changing our concepts but to describe them as they are, exactly how we use them. Frank Jackson writes: 'What we are seeking to address is whether free action according to our ordinary conception, or something suitable close to our ordinary conception, exists and is compatible with determinism, and whether intentional states according to our ordinary conception, or something close to it, will survive what cognitive science reveals about the operations of our brains' (1998: 31). It suggests that if rival theories commit to something sufficiently different from how our ordinary conception of the terms are presently used, they no longer properly address the phenomenon in question. Philosophy in this case should only concern descriptive analysis of terms and concepts in our ordinary thought and linguistic usage because making normative claims about what they should be and how they should be used, as revisionary analysis is doing, may take us too far from the original and actual linguistic phenomenon we initially set out to describe.

This worry has led to Strawson's (1963) decisive objection to revisionary analysis that by changing the meaning/concept associated with a term, we change the set of entities (or extension) the term picks out. That is, revisionary analysis changes the subject matter. We would think that maintaining the same subject matter is crucial in making sure not only that our communications are successful, but also that the interesting and meaningful disagreements we have pertain to the

subjects. So, if revisionary analysis always changes the subject, it will severely undercut its efforts and legitimacy in making ameliorate changes to our defect concepts.

To resist Strawson's subject-change view, proponents of revisionary analysis often cite the existence of genuine meaning change cases such as Mark Sainsbury's (2014) case about 'whale' where it used to mean fish but now it means mammal. In this case, we think that the subject matters stay the same, and that we are still talking about whales, even though the meanings are significantly different. If there are revisionary changes that do not change the subject, then the subject-change view, according to which revisionary analysis necessarily changes the subject, must be wrong.

However, the exceptional cases where subject is preserved despite the meaning change only show us that revisionary analysis can be on subject, it does not give us any measurements or metrics by which we can use to judge if a revisionary analysis is on subject or is likely on subject. Indeed, a reformed subject-change view may be given based on this very point: if a revisionary analysis endorses a dramatic meaning change of a term, it is unlikely that it will keep the same subject. I will develop this in detail in section 2.

This is not good news for revisionary analysists. Revisionary analyses are ubiquitous. They can be found in our philosophical discourse: for instance, 'knowledge' (Fassio and McKenna 2015), 'truth' (Scharp 2020), 'belief, and 'mind' (Clark and Chalmers 1998), in our political and everyday conversations such as 'gender' (Haslanger 2012), 'family' and 'marriage', and 'race' (Appiah 1996), as well as in law-making and law practice such as 'person', 'murder', and 'fetus'. If revisionary analysis is a pervasive phenomenon, and if the reformed subject-change view is true, then most of these analyses will not be on subject, and most of the associated disagreements (if there are any) about the subject matter would only seem interesting on the surface when all are mere verbal disputes. Seeing the reaching impact of revisionary analysis on our lives, addressing

the reformed subject-change objection should be among the first priorities for the conceptual engineers.

There are four prominent accounts on the table: Sarah Sawyer's talk and thought (2020) account, Herman Cappelen's (2020) samesaying account, Mark Richard's (2020) interpretive common ground account, and Erich Rast's (2020) operational tracking account. I will examine them in section 3 where I argue that they fall short of providing a satisfactory solution for the reformed subject-change view challenge.

I will also give my attempt in section 4. I think, contrary to the claim of the reformed subjectchange view, revisionary analysis is more likely to be on subject than it is not. There are meanings a term would just not take: for instance, we as competent speakers in the community simply do not use 'dog' to mean number 1. Revisionary analysists change the meaning of a term for good reasons, obvious subject-shifting change is unlikely. For those less obvious cases, I identify three markers from the paradigmatic 'whale' case. In the 'whale' case, (1) the disagreement between people who hold that 'whales are fish' and people who hold that 'whale are mammals' can be settled based on the evaluative claim that the latter better captures the facts about whale than the former; (2) the development of the new meaning of 'whale' is on good epistemic ground because the people who study whales are fully informed of the 'fish' theory and the related statements the theory contains; and (3) the change is brought by our conscious effort as it is rationally based and empirically guided, and it takes many people years to make the change. The change is also desirable because we think the new theory better captures features about whales. I think if a revisionary analysis bears these three markers outlined above, similar to the 'whale' case, it is also likely to preserve the subject. This approach is not only a direct counter to the reformed subject-change view, I believe it is also favorable than the four accounts in section 3.

CHAPTER II

CHANGING THE SUBJECT

The most cited example of revisionary analysis in recent conceptual engineering literatures is perhaps Sally Haslanger's 'ameliorative project' of redefining the term 'woman'. She proposed the following definition of woman:

S is a woman iffdef

- (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,
 i.e., 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 2000:39)

Now suppose I say, 'We should get rid of woman' after I accept Haslanger's analysis of 'woman'. If I hold genuine attitudes towards this utterance (e.g., I believe it) which entails a proper understanding of the proposition, then I should be aware of the meaning of the term 'woman' in my utterance, and that it is different from what people commonly mean when they use the term 'woman' vernacularly (as I am also a member of this community). Now if another

person (in this community) who uses the term 'woman' like everybody else as a sex term is conversing with me when I made the utterance, she would probably be perplexed as to why I would want to get rid of woman, and she might disagree 'I don't think we should get rid of woman'. To clarify, I then might add, 'what I mean by 'woman' is that 'they are oppressed', and I suggest you should start using 'woman' like I do despite the past usage'. Upon hearing this, she might not need to regard me in an opposing position about woman. That is, it would not be a contradiction if my idiosyncratic usage of 'woman', say *woman1*, is different from the standard (her) use of 'woman', say *woman2*, because only she is talking about woman (let's say woman are those with female's sex characteristics). Then by my stipulation about *woman1*, I am not really disagreeing with her about woman. I am saying something else, something about woman1.

Let's take a look at a more extreme case. Say I am an odd person, and I like to use the word 'dog' to mean number 1. This is apparently not how other people in the English-speaking community use it. Suppose due to my peculiar usage of 'dog' I was caught in a heated disagreement with an animal activist about whether dogs should be free from unnecessary pain. She might think I'm a horrible person with no compassions until I said, 'you see, I like to use 'dog' to refer to number 1. So, I guess you are right, the four-legged fury animals that bark and wag their tails should not be subject to any unnecessary pain. But number 1 has nothing to do with that'. By my stipulation, we came to realize that we were not really disagreeing about anything —I was talking about number 1, and she was talking about dogs. The apparent initial disagreement is not really about anything substantive, it could be about whether we should use the term 'dog' in a very different way (for whatever reasons), but it was obviously not about dogs.

Disagreements such as the ones above that can be easily resolved by additional stipulations are called verbal disputes. According to Derek Ball, any change of meanings of a term in verbal disputes also change the subject (2020). Accordingly, if I were to engineer the meaning of the term 'dog' to mean number 1, which is a significant departure from the ordinary conceptions and

beliefs associated with the term 'dog', this revisionary analysis changes the subject as dogs are not number 1, and after stipulation any initial disagreements in this case are mere verbal disputes. Similarly, if the proponents of the revision of 'woman' is not describing the current usage of the term, then they must be giving an alternative usage of a homophonic word, whose meaning has nothing to do with woman. Jackson's worry about revisionary analysis changing the subject is visible:

'If I say that what I mean – never mind what others mean – by a free action is one such that the agent would have done otherwise if he or she had chosen to, then the existence of free action so conceived will be secured, and so will the compatibility of free action with determinism, ..., I have turned interesting philosophical debates into easy exercise in deductions from stipulative definitions together with accepted facts.' (1998: 31)

If any perceived meaningful debate and disagreement can be dissolved by stipulation, indeed the stipulative definition is of little philosophical interest as it turns out that they are just different accounts about different things. However, this does not mean that any debates that cannot be dissolved by additional stipulation are in fact substantive, in the sense that they talk about the same thing. In the case of Haslanger's redefinition of 'woman', she does not mean to provide simply a stipulative definition of 'woman' and leaves it as that. She in fact means to say woman are those who bear real or imagined female characteristic because of which they are thus subordinate and oppressed, and the people who disagree with her are not picking up on her peculiar usage of 'woman', but that that's not woman. The charge of the revisionary analysis that they change the subject thus cannot be about whether the ensuing disagreement can be resolved by additional stipulations, but about whether the new meaning is different enough from the old usage and refers to a different group of entities. In other words, if in both the 'woman' and the 'dog' cases, the meanings are changed whilst a stipulative definition of 'woman' does not settle the disagreement but a stipulative definition of 'dog' does, then whether or not a stipulative

definition is able to end the disagreement cannot be a necessary (nor sufficient) condition for subject change. What the two cases have in common is that there is an aberrant meaning of a term proposed relative to the old one, and perhaps because of that, the new meaning picks out a different world-level referent/entity, and as a result the proposal changes the subject. The phenomenon of additional stipulative disambiguation settling disagreements does not constitute subject change because we could be wrong about that: we might think by stipulation we come to an agreement that we are talking about different things (dog and number 1), but it might turn out that we are talking about the same thing all along (the redefinition of 'woman' might turn out to be about woman).

Now the question we really want to answer is what it is to change a subject? Based on the commonality of the two cases just identified, we have a punitive Subject-Change thesis:

SC: The proposed meaning of a term t that departs from the current common usage and meaning of the term t changes the set of entities usually classified under t, and the subject matter.

The formulation of SC above is ambiguous in terms of what changes the subject matter. There are two interpretations of this thesis:

Subject-meaning: the subject changes because the change of linguistic meaning and usage of t.

Subject-referent: the subject changes because the change of the referent of t.

If one subscribes to the Fregean view of meaning and reference where intensions are roughly equal to extensions (where the change of one necessitate the change of the other), then there would be no ambiguous interpretation of SC in that if linguistic meaning necessarily changes reference, then which one, meaning or reference, does the subject latch onto is of no difference

because the change of one changes all. This is a strong view of SC, which is also originally why Strawson (1963) thinks any revision of common meaning of a term necessarily changes the subject. But we have some good reasons to resist this strong view. The term 'whale' circulated in ancient times means fish whereas now it means mammal. If one says the term means the same now as it meant in the past, then she fails to account for the fact that they are two distinct usages of 'whale', and they have different meanings; but if she says that people from the two times do use and mean the term differently, then she fails to make sense of the substantive nature of the disagreement about whale. It should be obvious that in this case the subject remains the same: we are still talking about whales, although the meanings are different. The strong view of SC fails to provide an explanation for cases like this where genuine meaning replacement happens without changing the subject.

Unlike the strong version, the *subject-meaning* and *subject-referent* interpretation teases apart our linguistic meanings, the intensions, and the world-level entities they are thought to pick out, the extensions, with respect to the subject matter. They thus provide two senses of subject. One in which subject supervenes on meaning, the other where it supervenes on reference. However, as we have seen that in the whale example where we can have competing theories (although one is wrong) about a singular subject, the *subject-referent* interpretation seems to align best with our intuition about subject matters. Although one might argue that we should change how we intuitively use of the term 'subject' where it is about world-level entities to mean it is about our linguistic meaning, a case of conceptual engineering on its own despite the lack of motivation for such a change, the task we are facing is to make sense of the kind of metalinguistic disagreement where concurrence of meaning change – for instance the opponents of Haslanger's redefinition of woman certainly agrees that both parties mean something different when applying the term 'woman' – does not result in concurrence of subject change – both parties think/believe they are talking about woman. Redefining 'subject' gives us no explanatory powers as to why this is the

case. But the intuitive usage of 'subject' does. We are talking about different things, different subject matters (e.g., 'dog' as dog and 'dog' as number 1), because the terms we use have different referents (despite of their being homophones). Similarly, we are talking about the same thing, the same subject matter because both (e.g., 'whale is fish' and 'whale is mammal') have the same referent, and we are just disagreeing about which of the meanings/theories best capture the nature of the subject in question.

Now does this mean revisionary analysis is safe from the charge of changing the subject? It seems not, and here is why.

We can certainly cite the whale example to argue against SC, but this does not mean that in principle *whenever* we disagree about different usages of a term, we are *always* on the subject, that is, they *always* have the same referent/same set of extensions. The problem is, when we *think* or believe that we are talking about woman with respective meanings, a typical trait of metalinguistic disagreements, it does not mean *in reality* they are indeed about the same world-level entities (same reference/same extensions), despite the fact that *if they are*, it could very well explain why we think or believe we are on the same subject.

So, I think what the proponents of the subject-change view of revisionary analysis want to say is that admittedly there are cases where contested meanings with regard to a single term can be explained by their being on the same subject in virtue of the fact that they are on the same subject (same reference/extensions), but how do we make sure and by what standards are we to say that whenever now or in the future we have a case of contested meanings for a single term, they are about a single subject matter. Before I move on to give a reformed version of SC in light of this issue, I want to quickly talk about the internalist and externalist view of meaning as it will make things clearer.

For internalists, linguistic meaning and concept of a term are determined by the agent's own usage of the term in their inferential and classificatory practices that are often limited by the individual's perspectival experience. In other words, meanings/concepts are dependent on the facts of the agent's internal states whenever they are deployed. Conceptual engineering understood within the internalist framework is the changing of individual's dispositional usage of a term for various purpose. I might change the meaning of 'dog' to mean number 1 despite my past usage or how others are disposed to use it. However, as we have learnt from the whale example, there are metalinguistic disagreements over the meaning of a term such as 'whale' that concern only a single subject matter, such a disagreement would not make sense in the internalist picture. If the meaning of a term supervenes on a person's internal states/dispositions, then the changing of disposition of how the term is used necessarily changes its meaning, and vice versa. Now if a pair of contested meanings as a result of a revision entails two distinct internal states/dispositions, then disagreement over whether they are about the same subject would not make sense at all. That is, if meanings are all in our head, then there should not be any disagreement over how a term should be used as everyone just use it in their own way. But since we do have metalinguistic disagreements that are substantive, the internalist account of meaning change seems unsatisfactory.

The externalist version perfectly captures this phenomenon. Concepts and meanings understood within this framework find their referents via series of causal relations. As long as the background causal history of a term is connected to a kind of world-level entity by an initial reference fixing practice, a term can have multiple meanings but still be on the same subject as long as the causal history is properly maintained. Thus, there can be contested meanings of 'whale', but the term either used in the past or now would likely to be connected to a single kind of thing, whale, and we are just disagreeing over which of the meanings best captures and explains various features of

whale. The *subject-referent* interpretation should be viewed as an external account of subject characterized in this sense.

It is important to emphasize here that the causal histories of a term offer us more than just some empty linguistic shells, they typically give us some intensions. It is rarely the case that when I come to learn about whales, I only learn that there is a word 'whale' that I do not know what it means, that I do not know how to use it whenever I later say some sentences that contain it. We learn meanings and concepts along with the designating word 'whale' in our linguistic community. It is a typical feature of the casual chain that some of the intensions with respect to the terms are communicated. Of course, the features characterized by those intensions could be totally off target in that they describe nothing like their referents. For all we know, whales could be a type of alien species under disguise, and all our theories about whales are wrong (they are neither fish nor mammal). But the contested theories are still about whales because the external causal histories tracking back to the same kind of entities. It is worth noting that here the meanings circulated in the community supervenes on shared usage, it is essentially an externalist account of meaning that should not be confused with the internalist account where they supervene on individual's internal states.

Now going back to the initial worry of the subject-change view where not all meaning changes, unlike the whale example and the like, preserve the subject. Call the *subject-referent* interpretation of SC informed by what we just discussed the reformed subject-change view of revisionary analysis (RSC):

RSC: The causal histories of a term not only locate its referent but also give some common usages and meanings of the term circulated in the linguistic community.

However, since a revisionary analysis of the same term gives it a significantly different meaning than the ones in circulation, it would seem *unlikely* that the new meaning be part

of the relevant causal histories of that term (albeit that it *can* be, such as the whale case). Consequently, it is not about the same referent and subject matter.

Let's unpack here what I mean by the new meaning of a term is or is not part of the relevant causal histories of that term.

Take the whale example again for instance. The relevant causal histories of the term 'whale' are all instances of causal links that connect up to whales. Suppose a group of scholars that studies marine life finds out that whales are actually mammals contrary to then held common beliefs, the causal history of how they use the term 'whale' are still instances of the causal relations linked to whales. As the community starts using the new meaning, the same links can remain (though they'll get longer) while new links are formed, and they all connect to whales. Although the meaning of 'whale' has changed, we are still talking about whales.

Now let's take a look at Evan's Madagascar example in Kripkes' Naming and Necessity as he writes:

'According to Evans, 'Madagascar' was a native name for a part of Africa; Marco Polo, erroneously thinking that he was following native usage, applied the name to an island.

... Today the usage of the name as a name for an island has become so widespread that it surely overrides any historical connection with the native name.' (1980: 163)

In this case, both the usage and referent are changed due to Marco Polo's mistake. The relevant causal relations of the new meaning of 'Madagascar' that 'it is an island' to the referent the actual island is not the part of relevant causal relations of old meaning that 'it is a part of Africa' to the referent that it is in Africa because the referent has shifted. They are two causal chains that point to different entities. As a result, this case signifies that a big meaning change could be accompanied by reference change, and thus subject change. Moreover, because we do not know how many cases of meaning change are like this in our messy linguistic history, and it is a fact

that our linguistic practice changes *all the time*, it would seem *unlikely* that given any meaning change, the new meaning is causally related to the same referent and about the same subject.

RSC's challenge to conceptual engineering is thus a broad one: if the subject is unlikely to remain stable, conceptual engineering/revisionary analysis is not justified.

There are generally three options (and they are not mutually exclusive) for conceptual engineers to explore in response to this objection. Either (1) they claim that subject continuity is no concern of revisionary analysis, that is, we should carry on doing it even if it changes the subject, or (2) they can give some necessary and sufficient conditions to identify if a particular revisionary analysis is on topic, or (3) they can say cases of revisionary analysis in general is actually a reliable process in keeping the subject so we should keep doing it because subject changes do not happen often.

I do believe that changing the subject is a serious accusation against any kind of revisionary analysis so I will set the first option aside for now. For the rest of the paper, I will discuss some prominent accounts of subject continuity in the literature more or less characterized by the second option, but I think the third option is way to go and I'll give an account for the case.

CHAPTER III

SUBJECT CONTINUITY

Talk and thought (TT)

The distinction of *subject-meaning* and *subject-referent* interpretation exposes our intuition of how subject relates to linguistic meaning and referents: it is of a common understanding that the notion of 'subject' bears on the world-level entities rather than our shared usage of a term. But this does not mean the circulated linguistic meaning and usage has nothing to do with their relevant causal histories because chains of communication do not just give us empty words without some meanings/intensions attached. There are at least some correspondences between the referents of a term and its linguistic meanings. RSC recognizes this. So, it would not be adequately countered just by citing the *subject-referent* interpretation.

Sarah Sawyer (2020) provides a rather simple but elegant solution. By maintaining that subjects supervene on referents, she seeks to sever the correspondence between the referent of a term and its meaning. According to her, it is a mistake for us to assume that meanings and concepts they express are equivalent in their theoretical and explanatory roles. Rather, they are theoretically distinct and are responses to different phenomena. Linguistic meaning of a term and its concept understood in this distinction have different jobs: the former tracks largely the shared usage of the term in the community whereas the latter tracks objective properties/referents that secures subject matters. The meaning of 'whale' therefore can change but still on the same subject because the semantic content of 'whale' tracks the communal usage, which explains the meaning change

(as the past common usage of 'whale' is different from its common usage now), and the concept of 'whale' tracks the objective entities (via relevant causal relations), the whales, which explains the phenomenon that relevant parties caught in the disagreement over the nature of whales agree that they are on the same subject (as they are in fact on the same subject).

The separating of linguistic meaning and the concept it expresses is ultimately rooted in the separation of sentences and thoughts. According to Sawyer, the unification of the semantic content of a sentence with the content of thought the sentence expresses is a mistake as it cannot explain why there are cases of genuine replacement of theories (cases where a set of statements/sentences of theory-A is replaced by a set of statements/sentences of theory-B on the same subject matter), and why many contested theories seem to be substantive disagreements. Since it is generally considered to be the case that words and concepts are the basic constructing unit of sentences and thoughts respectively, a unification of words and concepts would make the substantive metalinguistic disagreement puzzling as we have seen in the whale example. Sawyer thinks the severance of linguistic meaning and concepts better explains this and why subjects can continue even with meaning change. Let's this the *talk and thought* (TT) account for subject continuity.

Notice that TT does not really explicitly offer us a set necessary and sufficient conditions for when a particular revisionary is in fact on topic. If anything, the subject is continuous iff the referent remains the same. But RSC already takes this for granted. So, the objecting force TT has over RSC has to come from the distinguishing of meanings and concepts. However, on close examination, making this distinction does not really seem to provide for us the traction we need to refute RSC. I think there are two reasons.

First, the TT account does not take into account that we could be wrong about our metalinguistic disagreement being substantive. It does not distinguish the metalinguistic disagreement that is

substantive and the metalinguistic disagreement that might only appear to be substantive. *If* the disagreement about the meaning of 'woman' is not substantive, the separation of meaning and concept cannot explain why we are having the disagreement in the first place. The TT account shows that *there can be* revisionary analysis that maintains subject matters, which is already acknowledge by RSC, but it does not show us that *whenever there is* a revisionary analysis that elicits metalinguistic disagreements among different parties, the subject is preserved.

Second, what concepts are and how they are individuated are controversial issues. The are many different accounts of concept on the table, and each one is equipped to explain only some parts of the unified role we think concept plays in our classifying and inferring practice. The TT account assumes a type of atomic theory of concept that is originally motivated by Putman's (1973) and later Kripke's (1980) external account of reference. But it is contested by Fodor's classic theory and Prinz's prototype theory. If different accounts of topic continuity can be developed based on different conceptions of concept, it is unclear the TT account would be able to provide any substantial theoretical advantages.

Herman Cappelen (2020) thinks it is exactly for this reason that we should at least first try to do conceptual engineering without having to say anything about concepts. and we have enough theoretical resources to resist the subject-change view just by focusing on linguistic meanings and their relevant histories.

Samesaying

It should be of no contentions that the words we mean often depend on the contexts in which they are uttered. But despite that those difference in contexts however minuscule renders difference in meanings, we would often think we are talking about the same thing. I give one of Cappelen's examples here as I think it makes this point particularly clear.

Suppose two people A and B make a comment about the American tennis player Serena Williams by the same utterance 'Serena is really smart' in separate occasions. Depending on the different conversational contexts, the different background assumptions each has about Serena and about smartness, what A and B mean by the sentence 'Serena is really smart' in those separate occasions is going to be different. Nonetheless, it still seems true to say:

'A and B both said that Serena is really smart. A and B agree that Serena is really smart. A and B both described Serena as being really smart. A and B said the same thing about Serena.' (Cappelen 2020: 110)

In general, we could talk about the same thing without agreements on the exact meaning in different contexts. So, topic or subject thus conceived is very coarse-grained, so that meaning change does not mean subject change. In other words, 'Sameness of topic does not track sameness of extension' (Cappelen 2020: 109). Call this the *samesaying* thesis.

To repudiate the original subject-change charge brought by Strawson where intensions are roughly equal to extension, Cappelen takes this for granted in the formulation of the *samesaying* argument. The rough equality here means extensions (a set of entities) is picked out/determined by intensions (the meaning or usage of words) so the change of one necessarily change the other. Since the original subject-change assumes that the change of meaning/intentions changes the extensions they pick out, and that the subject depends on the extensions, the change of meaning/intensions would therefore change the subject. The *samesaying* argument directly counters this as it shows that subject or topic is actually distinct from extensions. We can talk and say about the same thing even when the extensions are changed as a result of meaning change.

We have seen that equating extensions with intensions cannot make sense of the whale case.

Different meaning/intensions of 'whale' can *non-descriptively* pick out the whale kind by causal relations as its extension. But the extensions characterized in Strawson's original subject-change

view do not include this non-descriptive referring via causal relations component. In his original formulations, extensions are fixed *descriptively* by intensions. For simplicity, let's say extensions are always those understood in this descriptive sense determined by intensions, and referents are those determined by non-descriptive causal relations to the relevant term and intensions.

Accordingly, there are two senses of subject. One we have already seen in the *subject-referent* interpretation (and subsequently in the reformed subject-change thesis RSC) where subject is determined by the referent via causal relations. The other is that subject determined by extensions. However, the notion of subject/topic in Cappelen's *samesaying* thesis seems different from the two discussed. He acknowledges that intensions do determine extensions but argues that still the topic does not depend on the extensions, and this (at least explicitly) has nothing to do with the referents linked by causal relations.

According to Cappelen, semantic facts supervene on non-semantic facts – like the meaning of the word 'smart' is determined by relevant contexts and background assumptions. Fluctuations in the non-semantic level no matter how slight would result in changes on the semantic level. As he shows us in the smart case, the topic does not have to change just because there are changes in the contexts and background assumptions that necessarily change some semantic facts of a term, say 'smart'. Notice that the semantic facts are just the meanings and intensions of a term, but the non-semantic facts are not extensions. Non-semantic facts determine intensions, which in turn determine extensions. So, extension change is a result of change in the non-semantic facts, but changes in non-semantic facts do not always change the topic. Consequently, the topic is something that supervenes on some kind of micro-factual changes on the non-semantic level because some changes are response to the same topic while others do not. Let's call the kind of micro-factual change that preserve the topic the X kind, and maybe we can have a necessary and sufficient condition for topic continuity:

Topic is continuous in a revisionary analysis iff the micro-factual changes that underlines the meaning change is the X kind.

We can agree that this is utterly trivial without a proper characterization of X. But it is practically impossible to know what kind of non-semantic facts, X, determines the topic. Assume there is no other inferences than an induction to generalize about X, the process would require painstakingly identifying enough particular micro-factual change that is thought to preserve the subject (assuming we are right on this part) and theorize based on their commonalities. But the reality is, we cannot seem to identify even one particular case because the relevant micro-factual change is so minute that is often inaccessible. If anything, the *samesaying* account only tells us that topic continuity is possible for conceptual engineering, it does not provide us with any sensible measures as to when a revisionary analysis is actually or likely on topic. Whereas RSC contends that it is unlikely. So, the *samesaying* account does not seem to be able to refute RSC on this front.

Interpretive common ground (ICG)

Mark Richard (2020) takes meaning to be a population level phenomenon just like species is a population level phenomenon. Species can undergo evolutionary changes that alter their genomes without dying off or becoming a new species. So can meanings of terms stay stable despite competent speakers using the term differently than others in the same linguistic community. Meaning in the sense Richard proposed, does not concern the speakers' usage of a term or even the sub-groups' usage just as a species does not concern the distribution of, for instance, eye colors, among the human population. People have different eye colors, but that does not make one group with the eye color brown any less human than the group with the eye color blue.

It is no denial that speakers in their actual or potential communication share a large amount of similarities not only in their word usage but also in the inferential role those words play and the presuppositions they carry. The mechanisms that underly various presuppositions of terms and how we use them to infer are readily identifiable – people communicate in a certain fashion (for instance, to change other's mind to adopt one's own usage of terms), public institutions like school systems usually teach the same terms and concepts, there are also television programs, news, internet, etc. So, meaning according to Richard is what he calls the *interpretive common ground* (ICG) comprised of presuppositions that competent speakers in the community make and expect others in the same community to recognize in their communicative interactions. He writes: 'When a speaker speaks, she makes presuppositions that she expects her audience will recognize she is making, ones that she expects the audience will have ready for use in making sense of what she says' (Richard 2020: 362).

For instance, I may use 'woman' in Haslanger's definition in a conversation with someone who uses 'woman' as a sex term. Although an utterance such as 'we should get rid of woman' that specifically relies on my usage would probably not be recognized by my counterpart initially, as the conversation continues after my explanation of what I mean by 'woman', there are certainly common ground that I make and expect my audience to recognize, such as the presupposition: 'woman' can be used to pick out people associated with female reproductive characteristics. This interpretive common ground is also apt to explain the substantive disagreement she might have with me over the definition of 'woman' because we are still talking about woman.

However, the same cannot be said about the conversation where I disagree with my audience about how to use 'dog' as a result of my being a peculiar user of 'dog', by which I mean number 1. After I clarify what I meant, there is simply no ICG for her to recognize and also expect my usage. Her presupposition of 'dog' is quite stable that it picks out the kind of creature that simply looks like a dog. Not only would she not be able to anticipate my usage seeing me as a competent speaker of the linguistic community, but there is also no mechanism in place that explains why

some significant groups of people, if they exist, decide to use 'dog' to mean 1. So, our conversation would not be about the same topic.

The whale case can also be explained in the same way. Despite the formal theoretical classification of 'whale' being different, people from the past and people from now do have similar interpretive common ground where 'whale' just are those creatures that look such and such, or fish-like. The presuppositions largely stay stable even if the theories of whale change over time.

However, presuppositions remaining stable does not mean there is no change in the ICG, some changes preserve the topic while others do not. Just like two populations of the same species might have different distributions of certain genes in their perspective community, so can two ICG with different distribution of usages of a term be about the same subject. In other words, speakers' usages do change ICG, but some changes are not enough to bring about subject change, while others do. As a result, how much change and what kind of change in ICG would mean the change of subject is unclear. The ICG account thus only shows that there can be sameness of subject with usage change, but it does not show us that whenever there is usage change (or a kind of usage change), the subject will remain stable (except for some paradigmatic cases). This account seems unable to effectively thwart the effort of the reformed subject-view to discredit revisionary analysis.

Operational tracking

Meaning change in revisionary analysis seems to involve in one way or another a definitional change, where definition is characterized in the sense that usually articulates some sort of hidden essence about the things defined. In such a reading, Strawson's' original criticism is obvious: change of definition entails a shift in essence. If water is necessarily H2O, redefining it to H3O would not be about water, necessarily. Erich Rast (2020) views the essence/kind exposing

definition of a term the theory of the kind of things designated. The formal meaning of a term that fixes the reference by its essential characteristics is thus taken to be the theory of the referent. Of course, our theories that are supposed to 'cut nature by its joints' could be erroneous, such as a theory that endorses 'whales are fish'. Some theories of the same entity could also be better than others along some evaluative dimensions even if they are both wrong about their subject: 'whales are fish' is arguably a better theory than 'whales are aliens'. To accommodate these phenomena, Rast thinks a definition is not all the term defined has. Aside from the often contested meaning of a term, there are plenty of associative concepts and operationalizations of the term within the contested theories that can reliably pick out roughly the same set of world-level entities, and they need not (although they can) be part of definition or meaning of the term. This can ensure that there are theories change without losing track of the entities in question. Rast translates these considerations into a necessary and sufficient condition for subject continuity:

The subject is continuous iff there are operationalizations of the term within the contested theories that track roughly the same set of entities.

If there are no operationalizations of the term, or the operationalization does not track roughly the same set of entities, then the topic would be changed. Operationalization here means the kind of measuring operations that can help us fix the reference without its being explicitly characterized in the definition of the term (but it can be). Rast offered us some good examples.

For instance, for a natural kind such as 1 meter. The definition of 1 meter has changed many times in the course of scientific history. Initially it was defined by Urmeter, then later based on the wavelength of light from a Krypton-86 source, and lastly changed to the length that light travels in a vacuum in 1/1,299,792,458 second. All of the above are different operationalizations that figure into the term's respective definitions, but they are all still the measurements of the same length. The subject remains while the definition can change.

Another example. Theories about race that turn on the pseudo-biological race ideology that many still use to justify their oppressing treatment of people of color are certainly empirically false. These theories usually center on some physical features of a particular group of people as evidence that they are essentially inferior. Some contemporary theories of race that are based on self-identification (partially influenced by their real or imagined physical attributes) would be a significant departure from the old and false theory about race. However, despite the theory change, there are operations such as physical characteristics we typically still use to identify and pick out *roughly* the same set of people. Haslanger's theory of 'woman' is also a similar case. The new and the old theories can still pick out roughly the same set of people in the population identified as woman based on the real or imagined female reproductive features as the common measuring operation. In both cases, subjects are continuous despite the change in theories.

However, I think there might be a functional problem with the *operational tracking* account. In theory, there can be same operationalizations in two different theories that actually track sufficiently different sets of entities. For instance, in the 'Madagascar' case, suppose the island and the location in Africa share some common features of the landscape, perhaps similar shapes of mountains covered in vegetations, and this is how people usually pick out the relevant referents. Unbeknownst to Marco Polo, he mistook the island as the place in Africa and called it 'Madagascar'. In this case, without saying anything about the inland Africa or the island, the two different meanings of 'Madagascar' do share a common operationalization that pick out the entities with those features, namely the island and the inland Africa; however, they are sufficiently different places.

The *operational tracking* account does give us a marker for subject continuity that we can use to assess whether a revisionary analysis is on the same subject with the old usage or not. But the exception above might be generalized to be a bigger problem as who knows how many instances like this one might have happened throughout the human linguistic history. If a revisionary

analysis turns out to be similar cases, then the operational tracking account fails to identify the ones that keep subjects and the ones that do not.

CHAPTER IV

THE RELIABILITY OF REVISIONARY ANALYSIS

In the last section I'll give my attempt at as I think is the best approach to refute the reformed subject-change view RSC against revisionary analysis. But first I want to give the *Unreliability* argument in favor of the subject-change view to home in on just what kind of a challenge the revisionary analysis is facing. The argument might seem a little extreme, but it gets the general point crossed, and we will see that some grounded and reasonable resistance to this argument lends us the support to trust our revisionary analysis in keeping the same subject.

The *Unreliability* argument:

- Theoretically, there are innumerable meanings a term t can change into, the kind
 of change that preserves the subject seem awfully small in comparison to the
 overall numbers of possible meaning change.
- 2. For any particular instance of meaning change N, since N is more likely to be the one that is not subject preserving than subject preserving (from 1), N is unreliable in tracking the subject.
- Since conceptual engineering necessarily involves meaning change, and no meaning change is reliable in tracking the subject (from 2), no conceptual engineering of any term is thus justified in tracking the subject.

Premise 1 finds itself in between two impossibilities. It is impossible that of all the possible meaning a term could change into, every each one of them is about the same subject. It is also impossible that of all the possible changes, no one change keeps the same subject. The question for premise 1, however, is: are there more instances of change in the subject tracking camp or more instances of change in the subject shifting camp? A quick example illustrates that it's the latter. Suppose we found out that the creatures we thought are dogs are not canine but some alien creatures with a quite different biological process that fooled us to characterize them as canines (wolves are still canines). Based on this empirical finding, we update our theory of dog in accordance with the alien's unique biological process, much like the whale case. But for any number of reasons or for no reasons at all, despite the past usage of 'dog' and new findings, the speakers could very well mean 'dog' by number 1, number 2, For still unknown reasons or no reasons at all, it is possible for all people in the community to agree to use 'dog' in any different ways, as many as there are numbers. In comparison to the theory update where we can keep the subject, the number of ways the term 'dog' can be used is innumerable, as the number of ways to change the subject.

It should make no difference if a specific of meaning change N is the kind of change that is underlined by some kind of mechanism X that ensures subject continuity, or just a result of fluke; theoretically speaking, the kind of changes that derail the subject vastly outnumber the kind of changes the track the subject, whether there is an underlying regularity (for instance the samesaying account purports a kind of non-semantic micro-factual change) or not is of no importance.

But as you might have guessed, it just cannot be the case that premise 1 is true, at least on a more realistic and practical reading. There are meaning changes that simply do not happen. We do not mean 'dog' by any numbers, and we never will. If premise 1 is true, given that our linguistic meanings do keep changing, there should be more meanings at any given moment that are not on

subject than the meanings that are on subject. Only but a couple of iterations of change, human communications would become utterly impossible. However, this is not the case. We are perfectly fine. The subject-change view characterized by the *Unreliability* argument simply cannot explain why our linguistic interactions are largely successful.

If premise 1 is false, then there must be constraints in place that ascertains that 'dog' means number 1 is an astronomically unlikely event. The constraints also cannot be too strict as to make the 'Madagascar' case and the like unlikely. Additionally, since the 'whale' case is seemingly different from the 'Madagascar' case, the former is about the same subject but the latter is not, there must be another constraint that explain this difference. Let's call the first kind of constraint the *boundary constraint*, and the latter the *revisionary constraint*. The revisionary constraint would demarcate the cases that are on subject from the cases that are not within the boundary constraint.

I think what underlies the *boundary constraint* is just human society and its history in general. There really is not much interesting to say about this constraint. The 'Madagascar' case is covered simply because of it is part of human linguistic history, whereas the 'dog' case is not covered because no recognizable human society in history is trying to use 'dog' to pick out number 1, and we have no motivations and attached values for making it a case in the future.

For the *revisionary constraint*, we need to first take a look at the paradigmatic off-subject 'Madagascar' case outside of revisionary constrain but within the boundary constraint, and the on-subject 'whale' case within the revisionary constraint. We can notice three important differences.

First, if there were metalinguistic disagreements regarding the usage of 'Madagascar' and usage of 'whale', the disagreement can be resolved in the former case based on some evaluations such as if the new meaning best describes the subject, whereas the disagreement in the latter case does

not have any evaluative components. Typically, had rational and well-reasoned people from the past known the empirical research on whales, they would likely have come to agree with the other side on the current usage of 'whale' because the new theory seems to describe the subject more accurately; however, if two groups of rational and well-reasoned people who use 'Madagascar' differently had known that the divergence in meaning is a result of Marco Polo's mistake, the disagreement may be settled, but its settlement does not seem to involve any evaluations as to which meaning should be used. They may agree because they might think it is fine to use 'Madagascar' in a time-relative fashion – it used to mean the place in Africa in the past but now it means the island.

Second, the 'whale' case seems to be in better epistemic ground than does the 'Madagascar' case. In the 'whale' case, people who initiate the change study marine life and are fully informed of the 'fish' theory and the related statements the theory contains. However, in the 'Madagascar' case, Marco Polo made a mistake precisely because he had not known better. His epistemic ground in judging if the piece of island is indeed then Madagascar is insufficient and inadequate compared to the marine life scholars.

Third, theory change of 'whale' requires our conscious effort (either as individuals or as communities) whereas the 'Madagascar' case does not. Meaning change like the one in the 'Madagascar' case happens not because we want to make a change; it happens because it is a chance event. It appears to be random and unpredictable. It is out of our control. However, changing our theory about whales is a rationally based and empirically guided practice. It takes groups of people years to make the change. We want to make the change because we think the new theory better captures features about whales. This of course does not mean we would not make a mistake. But making mistake on a usually carefully conducted research with adequate empirical date and proper scientific (philosophical) methodology would be unlikely. The chance of whales being aliens is way slimmer than being mammals.

So, the cases within the revisionary constraint commonly bear the hallmarks of (i) metalinguistic disagreement can be settled based on some dimension of evaluations; (ii) meaning change is on good epistemic ground; and (iii) we consciously bring about and maintain such meaning changes with considerable efforts. Now the question becomes: are the typical revisionary cases such as 'woman', 'gender' and 'race', 'family' and 'marriage', 'belief', 'truth', 'knowledge', etc. more likely to be like the 'whale' case or the 'Madagascar' case? I think it is the former.

Haslanger's redefinition of 'woman' seems to bear all three markers. First, although there might still be disagreements over its usage, they *can* be settled by accentuating the point that putting the component of subordination at the forefront, we can advance social justice and equality for woman. In other words, the opponents *can* agree that 'woman' should be used for this purpose, even if they might think redefining 'woman' is not the only way for that purpose. Second, the change proposed by Haslanger and other groups of woman theorists seem to be on good epistemic ground. Their proposal is based on a full acknowledgement of the common usage of 'woman' which fails to internalize some of the important phenomena about woman that is pervasive in our society. Theories generalize. If the new theory of woman does not say anything ubiquitous about its subject, it would not be a very competitive theory. Third, the change of meaning of 'woman' is a conscious effort. It requires the theorists' careful reasoning, gathering of evidence, and research. How it might spread in the population might not be known to us, but the initial change is consciously crafted. We want to make the change because we think the new theory captures something important about woman. We of course can make mistakes, but it is unlikely given the proposal is empirically based and philosophically reasoned.

The three markers of revisionary constraint are not individually necessary and jointly sufficient conditions for subject continuity. I did not give any criteria for maintaining the subject. I merely want to argue that a revisionary analysis that seems to have these markers is *more likely* to be a case like the theory change of 'whale' found in the revisionary constraint where subject is

continuous. It might not be. It could be like the 'Madagascar' case where subject is shifted, and it only gives an appearance of continuous subject by having the three markers. But I think the latter is unlikely. I give the *Reliability* argument:

- If a meaning change bears the three markers of revisionary constraint, then it is more likely to be one of the cases in the revisionary constraint where subject is continuous.
- 2. Given that most revisionary analysis do often share the three markers, they are more likely to track the subject than they are not.
- 3. Revisionary analysis is therefore justified in tracking the subject.

This is a direct rebuttal to the reformed subject-change (RSC) view's challenge that subject continuity is unlikely. Quite on the contrary, it would seem that revisionary analysis is likely to be on topic. I think this approach also avoids many complications of previous accounts examined. Without having to say anything about concept, meaning, linguistic usage, speaker competence, intensions, extensions, and referents, etc., the reliability approach seems to be a favorable alternative.

There is one last thing I think worth noting. If we take any meaning change to be a case of conceptual engineering, and we also take conceptual engineering to be synonymous with revisionary analysis, then the reliability argument would unlikely work. Suppose there are more cases between the boundary and revisionary constraint than there are cases in the revisionary constraint, then for any case of conceptual engineering/revisionary analysis, since it is more likely to be in the in-between constraint than the revisionary constraint, it is not justified in tracking the subject. But if we take revisionary analysis to be only a subset of conceptual engineering as I think we should, how many cases are in the in-between constraint would be no concern of ours.

For as long as it bears the three markers of revisionary constraint, it would likely be in there and thus likely on subject.

CHAPTER V

CONCLUSION

Revisionary analysis is an important and integral part of our scientific, social, ethical, and philosophical enterprise. Sensible and well-informed progresses made in these areas rely on it. If revisionary analyses shift their subject in any significant way, it would be hard for us to produce a coherent and consistent understanding of the phenomenon found in our scientific, social, ethical, and philosophical lives. The subject change view where the change of meaning of a term in revisionary analyses makes it unlikely that they are on topic, therefore we should not do it. But I do not think it is the case. I have shown that if a revisionary analysis comes with the three markers identified for the paradigmatic 'whale' case where subject is preserved, it should be more likely to be a similar case that keeps the subject. The kind of revisionary analysis are thus justified. I think this approach appears more favorable than the accounts that seek necessary and sufficient conditions for subject continuity in the literature because it can satisfactorily refute the RSC's claim which other accounts have not been able to, and it does it without making controversial claims and producing other complications.

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VITA

Ziyu Wang

Candidate for the Degree of

Master of Arts

Thesis: CONCEPTUAL ENGINEERING AND SUBJECT CONTINUITY

Major Field: Philosophy

Biographical:

Education:

Completed the requirements for the Master of Arts in Philosophy at Oklahoma State University, Stillwater, Oklahoma in July, 2022.

Completed the requirements for the Master of Engineering in Civil Engineering at Iowa State University, Ames, Iowa in 2016.

Completed the requirements for the Bachelor of Science in Civil Engineering at Iowa State University, Ames, Iowa in 2014.