Against 'Against 'Against Vague Existence"

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According to Sider's (2001; 2003) Lewisian argument (Lewis 1986; 1991) against vague existence, if the linguistic theory of vagueness is assumed, existence cannot be vague, since the very idea of multiple precisifications for our most unrestricted quantifier appears to lead to a contradiction. Torza (2017) accepts the latter point but replies that we can conclude from it that 'existence'[1] in the object-language is not vague, only if we assume that 'existence' in the *meta*-language is *precise*. By the same token, he also accepts that the idea that 'existence' in the meta-language is vague leads to a contradiction, but again points out that we can then infer that 'existence' in the *meta*-language is not vague, only if we assume that 'existence' in the *meta*-meta-language is precise. The same kind of reasoning can be repeated at every order. The upshot, Torza concludes, is that Sider's argument appears to be insufficient to rule out the possibility of what he calls 'super-vague existence', that is, the idea that 'what precisifications there are is *vague* at all orders' (Torza 2017: section 1.2).

The aim of this paper is to argue that the possibility of super-vague existence is ineffective against the conclusion of Sider's argument, as super-vague existence cannot be consistently claimed to be a kind of linguistic vagueness. As I will suggest, Torza's idea of super-vague existence seems to be better suited to model vague existence under the assumption that there is some form of worldly indeterminacy in existence, contra what Lewis (1986; 1991) and Sider (2001; 2003) assume.

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[1] For simplicity's sake I will speak of the vagueness of 'existence' (understood as our most unrestricted notion of existence) instead of the vagueness of our most unrestricted quantifier. Nothing of substance hangs on this.

1. INTRODUCTION: VAGUE EXISTENCE AND SEMANTIC INDECISION

Suppose a and b are clear, determinate instances of bald men, and yet it is indeterminate whether there is someone different from a and b that is also bald. For simplicity's sake, let's also assume that it is determinately the case that there aren't more than three bald men in the world. According to the linguistic theory of vagueness Lewis (1986; 1991) and Sider (2001; 2003) assume, indeterminacy in baldness consists in a kind of semantic indecision involving the predicate 'bald'. In turn, this kind of semantic indecision consists in the fact that there are multiple precisifications for 'bald' assigning to it different extensions. Therefore, if 'bald' is vague, there must be at least two different sets of entities corresponding to two different precisifications of 'bald'. In our case, these two sets could be $\{a,b\}$ and $\{a,b,c\}$. Since a and b are members of both sets, they are *definite* cases of baldness. c, on the other hand, is only a member of $\{a,b,c\}$, and thus it's only a *borderline*, or *indeterminate* instance of baldness.

A perhaps more perspicuous way to express this idea is to think of precisifications of 'bald' as ways of specifying which entities fall in its extension. Suppose, for instance, that the following is a faithful representation of all the existing entities:

$[a, b, c]$

Our two precisifications could then be represented as follows:

(P1) $[\mathbf{a}, \mathbf{b}, c]$

(P2) $[\mathbf{a}, \mathbf{b}, \mathbf{c}]$

P1 represents only a and b as being bald, whereas P2 represents *also c* as being bald. However, P1 and P2 don't disagree as to what entities *exist*. They only differ in the way they catalogue entities with respect to the predicate 'bald', so to say. In other words, precisifications concern only the relation between language and world and not the world *itself*, as it were.

Suppose now that 'existence'—the expression standing for our most unrestricted notion of existence—is a vague expression. This means that there are multiple precisifications for 'existence'. Therefore, supposing that it is determinately the case that a and b exist and that there aren't more than three

entities in the world, we might have in this case two[2] precisifications that look precisely like P1 and P2 with the only difference being that the bold letters mark *existing* entities instead of *bald* ones. As before, precisifications don't disagree as to what exists, but only as to which entities are instances of the relevant expression. However, in this case the relevant expression is 'existence', that is, the expression standing for our most *unrestricted* notion of *existence*. P1 represents 'existence' as applying only to *a* and *b*, and *not* to *c*. *c*, however, is an existing entity. We have, thus, that there is *something* such that, according to P1, isn't in the extension of 'existence'. Therefore, either P1 isn't an admissible precisification of 'existence' or 'existence' isn't our most unrestricted notion of existence. Either way, we have reached a contradiction.

2. SUPER-VAGUENESS AND MULTIPLE PRECISIFICATIONS: A CHALLENGE

Suppose that Alex and Ted agree both that *a* and *b exist* and that there *aren't* more than three entities in the world. Alex says that it is vague whether there is also a third entity beyond *a* and *b*. Ted disagrees. However, both Alex and Ted take vagueness to be semantic indecision. So, Ted *challenges* Alex to show him what the multiple precisifications for 'existence' are. Both agree that P1={*a,b*} is one such precisification[3] and that, *if* there are other precisifications, then they must contain both *a* and *b*. The problem, as Ted points out, is that, if there was a *second* precisification P2 for 'existence' containing an entity *c* different from *a* and *b*, then (for the argument just reviewed in section 1) either P1 wouldn't be an admissible precisification of 'existence' or 'existence' wouldn't be the most unrestricted notion of existence, contradicting what both he and Alex are assuming. *Therefore*, Ted concludes, Alex can*not* provide him with multiple precisifications for 'existence' and thus can*not* claim that 'existence' is vague.

Alex may reply that what Ted has shown doesn't prove that there *aren't* multiple precisifications. It can only prove that it isn't *true*, or *definitely the*

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[2] For simplicity's sake I am assuming here that there aren't more than two precisifications for 'existence' and that the following sentence is thus true: 'If there is some *x* different from *a* and *b* then it is determinately the case that if there is some *y* different from *a* and *b*, then *y* is identical to *x*'.

[3] From now on I will identity precisifications with sets for simplicity's sake.

case, that there are multiple precisifications for 'existence'. Maybe, continues Alex, it is vague what *precisifications* for 'existence' there *are*. In other words, says Alex, all we have said so far is compatible with 'existence' being *second*-order vague.

However, the same problem we encountered for the alleged first-order vagueness of 'existence' also arises for its second-order vagueness and the indeterminacy concerning its precisifications. In fact, both Alex and Ted will agree that there is one precisification$_2$ for 'existence$_2$' having $\{a,b\}$ as a member.[4] However, Alex cannot say that there is a second precisification$_2$ for 'existence$_2$' having $\{a,b,c\}$ as a member, because that would entail that c exists$_3$, and thus it determinately exists$_2$, contradicting his main assumption.

The point generalizes. No matter how high in the hierarchy Alex retracts in order to fend off the objection and avoid the *reductio*, at every higher-level n he can*not* consistently affirm that there are$_n$ multiple precisifications$_{n-1}$ for 'existence$_{n-1}$'. At every meta-level n he can only point to a *single* precisification$_{n-1}$ for 'existence$_{n-1}$'and then retreat to the next level.

It seems thus that there is a clear sense in which Alex can*not* meet Ted's challenge, since at *no* level n can he consistently point to multiple precisifications$_{n-1}$ for 'existence$_{n-1}$'.

3. IS SUPER-VAGUENESS VAGUENESS?

Torza's (2017) 'super-vagueness' is the idea that although, for any level n, a contradiction ensues, if 'existence$_n$' is assumed to be vague, for no level n can it be concluded that 'existence$_n$' *isn't* vague, unless it is assumed that the meta-language L_{n+1} is precise. The fact that Alex doesn't seem in position to meet Ted's challenge doesn't prove that Torza's idea of 'super-vagueness' is incoherent. However, Alex's infinite retreat to higher and higher meta-

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[4] The object language here is what previously was the meta-language. Accordingly, what 'precisification' means here is not what it meant before. For every order n (where the initial object language has order 1, the meta-language has order 2, the meta-meta-language has order 3, etc.) I will use 'precisification$_n$' and ''existence$_n$'' to refer to precisifications of the nth-order (meta)-language and the expression in the $n+1^{th}$-order meta-language naming the nth-order notion of existence. Correspondingly, 'existence$_n$' stands for the nth-order notion of existence. Therefore, at every order n, vagueness in the $n\text{-}1^{th}$-order notion of existence is expressed by the sentence 'there are$_n$ multiple precisifications$_{n-1}$ for 'existence$_{n-1}$''). I will omit subscripts when the context makes it clear which notions are in play.

languages appears to clearly undermine the effectiveness of Torza's point against the conclusion of Sider's argument.

Torza claims that Sider's argument is insufficient to rule out the possibility of super-vague existence. However, Sider's conclusion is that existence isn't *vague*. Therefore, the claim that there is super-vagueness in existence can be problematic for Sider only if it could be shown that super-vagueness is aptly named, and so that it is indeed a case of *vagueness*. This, however, is precisely what Torza can*not* consistently *assert*. In fact, under the assumption that vagueness is just semantic indecision, to say that super-vagueness is a form of vagueness is equivalent to saying that super-vagueness itself is a form of semantic indecision, and thus that *there are* multiple precisifications (somehow) disagreeing about what should be classified as existing. However, this is precisely what Sider's argument (which Torza accepts, *minus* the final *reductio*) proves to lead to a contradiction. Therefore, if the linguistic theory of vagueness is assumed, super-vague existence can*not* be consistently claimed to be a kind of vagueness in existence.

Torza's main point appears to be that Sider's argument cannot prove that there is no existential vagueness *because* it cannot rule out the possibility of super-vague existence. In other words: *since* the possibility of super-vague existence isn't excluded by Sider's argument, we can*not* conclude that there is no kind vagueness in reality, or so Torza's train of thought seems to go. Therefore, Torza can be right *only if* super-vague existence is indeed a form of vagueness in existence. If the only scenarios that aren't weeded out by Sider's argument are scenarios in which there is *no* vagueness in what there is, in what sense should the possibility of these scenarios be taken to be problematic for its conclusion?

Torza seems to be right that Sider's argument cannot prove 'there is no existential vagueness' to be true.[5] However, not only can super-vagueness not be asserted to be a kind of vagueness, but—for this *very* reason—neither can it be claimed to be *problematic* for the conclusion of Sider's original

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[5] At least, we might add, until no suitable rule of *reductio* is provided. Notice that it would suffice to assume the validity of the following rule of *minimal reductio* in order to contrast to contrast the object-language counterpart of Torza's argument ('Δ^n' stands for *n* iterations of the determinacy operator 'Δ'):

(Minimal Reductio)   If, for every *n*: $\Sigma, \sim\Delta^n\sim p \vdash \bot$, then: $\Sigma \vdash \sim p$

Alas, a defence of Minimal Reductio and a full development of this idea are beyond the topic of this note and must thus be left for another occasion.

argument. Therefore, it seems that what Sider's argument *can* indeed prove is that, although the linguistic theory of vagueness is compatible with super-vague existence, super-vague existence cannot be consistently claimed to represent (or even *possibly* represent)[6] a counter-example to the thesis that there is no existential vagueness.

Although this result is certainly weaker than Sider's, it appears to be more than enough to tilt the scale in favour of the idea that vague existence is impossible under a linguistic theory of vagueness.

4. A SUPER-META-LANGUAGE FOR SUPER-VAGUE EXISTENCE?

In the appendix B.7 of his paper, Torza (2017) provides us with a model for super-vague existence. Its domain is given by the set $\{a,b\}$. As it is clear by how the function *Dom* assigns a domain to each 'point' in the model, b is the entity that is supposed to merely super-vaguely exist. In fact, although *Dom* assigns to every point a domain featuring a among its members, it only assigns $\{a\}$ to some points, so that according to them a is the only existing entity. Here points are supposed to represent precisifications. Therefore, in Torza's model *there is* an entity b such that there are some precisifications of our most unrestricted quantifier '∃' according to which *it doesn't exist*. But this seems to be precisely the situation from which Sider derives a contradiction in his argument. So, if Torza agrees with Sider's meta-linguistic argument that the idea of multiple precisifications for 'existence' entails a contradiction, why doesn't he also take a contradiction to follow from his own model of appendix B.7?

In the same way, recall that Torza advertises the idea of super-vagueness as the idea that

> (T1) 'What precisifications there are is vague at all orders' (Torza 2017: 210).

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[6] Notice that Torza cannot even assert, for any n, that it is n^{th}-order vague whether super-vagueness is semantic indecision. In fact, at every order n, if it were true in L_n that ''super-vagueness is a form of vagueness' is vague', then it would be true in L_n that there is some precisification according to which 'super-vagueness is a form of vagueness' is *true*, which, however, would entail that *there are* multiple precisifications for 'existence' and thus that super-vagueness *isn't* a form of vagueness. In other words, letting 'possibly' stand for 'it is not the case that it is determinately not the case that', Torza cannot even claim, for any n, that super-vagueness is possibly$_1$, possibly$_2$, possibly$_3$, . . . possibly$_n$, a form of vagueness.

However, as we have seen, in no meta-language L_n it can be claimed that

(T2)   What precisifications$_{n-1}$ there are$_n$ is vague.

In every meta-language L_n, (T1) (which speaks of precisifications at *every* order) appears to imply (T2) (which speaks only of the precisifications of L_n). How then, can Torza take himself to be in position to assert (T1), if (T2) cannot be asserted in any meta-language pertaining to the infinitely ascending hierarchy of meta-languages of L?

A possible answer to these questions is that Torza seems to think that the *reduction* of the 'hierarchy of metalanguage truth/falsity/vagueness predicates to the object language L' (Torza 2017: 210) he operates in the paper can create as a result a sort of 'super-meta-language' (as we might call it) that, by *not* belonging to the hierarchy of meta-languages of L, is immune from Sider's objection and thus a safe vantage point from which to consistently utter sentences like (T1) and to consistently point to entities that merely super-vaguely exist (like b in the model of appendix B.7).

It should be clear, however, that there appears to be *no* principled reason to think that Sider's argument doesn't also apply to Torza's super-meta-language. In fact, what follows also appears to be true in Torza's super-meta-language:

'(i)   every possible precisification (at any order) of '∃' specifies a subset of $\{a,b\}$ as its domain;

(ii)   therefore, *both a and b exist*;

(iii) $\{a\}$ is the domain of some precisifications;

(iv)   therefore, either '∃' isn't our most unrestricted quantifier, or those precisification according to which $\{a\}$ is the domain of '∃' aren't admissible precisifications, contrary to what we are assuming;

(v)   either way, we have a *contradiction*'.

Once again, this doesn't in itself prove that '∃' *isn't* vague (unless an appropriate valid *reductio* rule is provided). However, it appears to show that super-vague existence is actually *impossible* to model, since the very specification of a domain for the model would immediately give away the determinate and hence not super-vague existence of all of its members.

5. SUPER-VAGUE EXISTENCE AND WORLDLY INDETERMINACY

So far, the possibility of super-vague existence has been discussed only from the point of view of theories that take (i) vagueness to be a form of indeterminacy concerning precisifications—or 'p-indeterminacy', as we might call it—and (ii) p-indeterminacy to be *semantic* indecision. Interestingly, however, there seem to be at least *two* ways to show how super-vagueness can be consistently said to be a form of p-indeterminacy under the assumption that vague existence is instead an *ontic* form of *metaphysical* indeterminacy 'in reality', contra what Lewis (1986; 1991) and Sider (2001; 2003) assume.

Suppose that there is indeed a vague, indeterminate, and yet *worldly* form of existence in reality. Let's call it 'fuzzy-existence' and suppose that c (merely) fuzzy-exists. Suppose, furthermore, that one tried to explain the *vagueness* of 'existence' as p-indeterminacy between the precisifications $\{a,b\}$ and $\{a,b,c\}$. Since c fuzzy-exists, every set that has c in its transitive closure will most plausibly fuzzy-exist as well.[7] In this case, it is then incorrect to say, for instance, that there *exist* (*simpliciter*) two precisifications for 'existence', as $\{a,b,c\}$ merely *fuzzy-exists*. Therefore, 'there exists something different from a and b' *isn't true*, otherwise it would follow that $\{a,b,c\}$ exists and not merely fuzzy-exists, contrary to what we are assuming. However, 'there exists something different from a and b' is also *not false*. In fact, if 'there exists something different from a and b' were false, then 'nothing is different from a and b' would be true, and so true according to every precisification, which would entail that c doesn't even fuzzy-exists, contrary to what we are assuming. The situation clearly generalizes, as every candidate precisification having c in its transitive closure will only fuzzy-exists. Therefore, at any meta-linguistic level n 'there exists something different from a and b' would, in this case, be neither true nor false. Therefore, although in this case it can*not* be said that it is *vague* whether something beyond a and b exists, it *can* be both said that it is *super-vague* and that this case of super-vague existence is indeed a form of p-indeterminacy (at *every* order, between an existing set and a fuzzy-existing one).

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[7] If, as it is widely assumed in the literature, sets depend on their members for their existence, then it appears plausible to suppose (at least in the case at hand) that they 'inherit' their 'mode of existence' at least in the following way: if a set S has only *existing* members, then S exists; if, instead, S has only *fuzzy-existing* members or *both* existing *and fuzzy-existing* members (as in the case of $\{a,b,c\}$), then S merely *fuzzy-exists*.

The second way in which it seems it could be consistently claimed that super-vague existence is a form of p-indeterminacy is by embracing a theory of metaphysical indeterminacy along the lines of the one advocated by Williams (2008), Barnes (2010; 2013), and Barnes and Williams (2011).[8] Within such a theory, there can be *metaphysical* indeterminacy when it is indeterminate which world, among a set of 'precisificationally possible' (*ersatz*) worlds, is actualized (equivalently, when there is more than one 'p-possible' world that 'does not determinately misrepresent reality').[9] If that is indeed the case, then it appears to be possible for there to be two p-possible worlds w_1 and w_2 such that w_1 represents c as existing, while w_2 doesn't.[10] In this case, it is clearly indeterminate whether 'c' has a referent (as 'c' has a referent according to w_1, but not according to w_2).[11] However (as it appears indeed highly plausible), if it is indeterminate whether 'c' has a referent, it must be also indeterminate whether '$\{a,b,c\}$' has a referent. The same clearly goes for '$\{\{a,b,c\},\{a,b\}\}$', '$\{\{\{a,b,c\},\{a,b\}\},\{\{a,b\}\}\}$', and every term attempting to refer to a set having the referent of 'c' in its transitive closure. It seems, therefore, that if there is indeterminacy as to whether 'c' has a referent, then not only it is *eo ipso* indeterminate whether there are multiple precisifications for 'existence', but, for *every* meta-linguistic level n, it is also indeterminate whether there are multiple precifications$_n$ for 'existence$_{n-1}$', which is just equivalent to saying that existence is super-vague.

Both in the 'fuzzy-existence' case and in the case of Barnes and Williams's kind of theory, it appears thus to be possible to assert that super-vague existence is a form of p-indeterminacy (between existing and fuzzy-existing sets, in one case, and between different p-possible worlds, in the other). However, in both cases, this is something that can be consistently claimed only because, at the bottom, the super-vagueness of 'existence' *isn't* grounded in merely *semantic* facts, but crucially depends on some instance of the kind of vagueness 'in the world' that Lewis (1986; 1991) and Sider (2001; 2003) assume to be false.

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[8] Many thanks to an anonymous referee for pressing me on this point.

[9] Barnes and Williams (2011: 115).

[10] Notice that 'representing c as existing' must here be understood in a way that doesn't entail c's existence, otherwise Sider's argument would appear to go through. See Woodward (2011) and Barnes (2013) for possible ways to avoid Sider's objection in this case.

[11] Notice that, in this case, 'c exists' is true only with respect to w_1, but false with respect to w_2. Therefore, although it is determinately either true or false, it is neither determinately true, nor determinately false.

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5. CONCLUSION

Torza's (2017) 'super-vague' existence is an interesting notion that may help us understand the indeterminacy of 'existence' under the assumption that, *pace* Lewis (1986; 1991) and Sider (2001; 2003), there is some worldly form of metaphysical indeterminacy in reality. However, if what has been said in this paper is correct, the idea of super-vague existence appears to be ultimately ineffective against the conclusion of Sider's argument, if the linguistic theory of vagueness is assumed.[12]

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