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Semantic Supervenience

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Abstract

It is common belief that semantic properties supervene on non-semantic properties: no two possible worlds can be non-semantic duplicates and fail to be semantic duplicates. The view enjoys somewhat of an orthodoxy status in contemporary philosophy of language and metaphysics, and is often assumed without argument. Yet, work by Stephen Kearns and Ofra Magidor has claimed that it is vulnerable to a variant of the classical arguments against the supervenience of the phenomenal on the physical. This paper does three things: it clarifies what semantic supervenience is about, it responds to the objections that have been leveled against it, and provides a new battery of arguments in its favor. I argue that the thesis of semantic supervenience is safe from classical anti-supervenience arguments, and show that its rejection generates unwelcome consequences. I conclude that there are substantial reasons to embrace the received wisdom: semantic properties supervene.

1. Introduction

There are *semantic* properties: the property of denoting H₂O; the property of picking out a stable referent across contexts of utterances; the property of being *de se* in the environment of attitude verbs. And there are *non-semantic* properties: the property of having a single natural satellite; the property of failing to react with oxygen at any temperature; the property of being the former capital of West Germany.

What is the relationship between semantic and non-semantic properties? A popular answer is the following: semantic properties *supervene* on non-semantic properties. Call this, for brevity, *Semantic Supervenience*. Semantic Supervenience enjoys somewhat of an orthodoxy status in contemporary philosophy of language and metaphysics, and is often assumed without argument.¹ Yet, the thesis has come under scrutiny. Kearns and Magidor (2012) (henceforth, K&M) have argued that the consensus is vulnerable to a variant of the classical arguments against the supervenience of the phenomenal on the physical, and that the success of these arguments should lead us to abandon Semantic Supervenience. Were such a diagnosis correct, it would have major implications on the way we've grown accustomed to

¹ Example: "Where do semantic properties come from? The presupposition of this question is that the fact that a word (or a sentence, or whatever) means what it does can't be a brute fact. It can't be a brute fact, for example, that 'dog' means dog and not proton and that 'proton' means proton and not dog. Rather, 'dog' must have some non-semantic property in virtue of which it means dog and not proton; and 'proton' must have some (different) non-semantic property in virtue of which it means proton and not dog. To put it in the standard philosophical jargon, semantic properties must supervene on non-semantic properties" (Fodor and Lepore 1991: 328).

thinking about semantic phenomena: it would disqualify from the get-go the quest for any stronger metaphysical relation between non-semantic facts and semantic facts (be it entailment, grounding, ontological dependence, or what have you), and would quite possibly force us to renegotiate a sizable amount of classical work on meaning and content.²

The task of this paper is threefold. The first is to formulate Semantic Supervenience and lay out the requirements for a meaningful assessment of the thesis. The second is to respond to the objections that have been leveled against it by K&M. The third is to provide a new battery of arguments in its favor. The take-home message will be the following: though often assumed without argument, there are substantial reasons to embrace the received wisdom. Semantic properties supervene on non-semantic properties.³

The plan is as follows. Section 2 defines Semantic Supervenience. Section 3 presents K&M's anti-supervenience argument. Section 4 argues that K&M's case doesn't hold up. Section 5 presents three counterarguments for Semantic Supervenience. Section 6 concludes.

2. Semantic Supervenience

First things first: let's get clear about what Semantic Supervenience amounts to, and about the assumptions we need to grant to warrant a meaningful discussion of the thesis.

To start, I will grant that semantic properties exist, that semantic properties are knowable, and that we should be safeguarded from the threat of a massive error theory about semantic properties. These assumptions seem essential to a charitable assessment of Semantic Supervenience. If semantic properties didn't exist, the question whether they supervene on non-semantic properties would be moot. If semantic properties were not knowable, if we were at risk of being catastrophically mistaken about them, or if we were bound to be merely

2 E.g., standard metasemantic externalism: if semantic properties aren't guaranteed to hold constant across pairs of non-semantically duplicate worlds, we should probably be ready to accept particle-by-particle nomological replicas of the actual world where 'water' refers to liquid metal, Easter eggs, or doesn't refer at all.

3 I'm not the first to raise concerns about K&M's argument. Child (2019) has proposed a detailed evaluation of K&M's case. Though some of my reservations have ended up overlapping with those expressed by Child, my argument should nonetheless bear independent interest. First, Child does not address K&M's argument from haecceitistic properties (see Section 3); this paper does. Second, my assessment of K&M's argument pursues, at various junctures, a response strategy different from the one favored by Child. Third, Child restricts himself to responding to K&M's anti-supervenience case; this paper adds a battery of positive considerations for Semantic Supervenience. This paper therefore offers a complete and independent response to K&M's challenge, as well as a new positive case for Semantic Supervenience. The loci of convergence with Child's commentary will be pointed out in due course. For concision's sake, and because that would make the argument tedious, I won't delve into the components of Child's response about which I would in turn be skeptical. I leave a more in-depth comparison to the interested reader.

luckily correct about them, we wouldn't be in a position to make reliable judgments about the semantic properties instantiated at any given world, and it would be hard to determine with reasonable confidence whether the predictions of Semantic Supervenience hold up.⁴

I will not draw any precise (and necessarily contentious) boundary between the domain of semantic properties and the domain of non-semantic properties, both inside and outside language. For example, I won't ponder whether properties like animacy, aktionsart or S-selection, which textbook linguistics would take to sit on the border between syntax and semantics, should be included in the pool of properties the supervenience thesis characterizes as supervenient. I will take it that as long as we can identify central instances of semantic properties (e.g., the property of being referentially empty, the property of being true in French iff it is snowing in Paris), the prospects of Semantic Supervenience can be fruitfully assessed by reflecting on how well it fares with respect to such central instances, with no need to carve out the exact extension of the two relata.

Following established practice, I will take Semantic Supervenience to be concerned with both *internal* semantic properties and *intentional* semantic properties. The distinction can be glossed as follows. The property of being true in French iff it is snowing in Paris, is an internal semantic property of "Il neige à Paris", since it depends solely on the rules of the language. By contrast, the property of being referentially empty is an intentional semantic property of the noun phrase "a magical winged horse", since it is determined by the way things stand outside the language. Similarly, being conservative is an internal property of natural language determiners (e.g., Keenan and Stavi 1986). By contrast, being about her dog Poe is an intentional semantic property of Jill's visual experience of Poe, which would fail to be instantiated at a world where an evil demon has replaced Poe with a robot replica of Poe. I'm making this explicit because talk of "intentional semantic properties" might be hard to swallow for some deflationists, as well as for Chomskyian views on which the domain of the semantic encompasses only algebraic-compositional roles and has nothing to do with world-involving properties like reference and truth (e.g., McGilvray 1998; Segal 2000; Collins 2009; Pietroski 2018). Though I expect my argument to hold even if deflationism or (radical)

⁴ For anti-realism about semantic properties, see, e.g., Horgan and Timmons (1993). Note that in assuming that we should be safeguarded from the threat of a massive error theory about semantic properties, I'm simply setting the requirement that we should have *some* reliable means (introspective, empirical, theoretical) of tracking semantic properties. That would be compatible with the "elitist" view that only mature semantic theories can reliably track semantic properties, that speakers' native judgments about semantic properties may contain regions of error, or that some semantic properties may systematically lack transparency for ordinary speakers. See, e.g., Hodgson (2020) on the structure of content.

internalism proved correct, I will abide by the opposite consensus and allow the domain of the semantic to encompass intentional properties.

What about non-semantic properties? I will simply understand the category to encompass *every* property of a world which is not semantic in nature, without further qualification. Notice that, so defined, the subvening base of “non-semantic properties” isn’t restricted to facts about language use or to the physical properties of a world. So, e.g., a possible world where at the time of writing this sentence there’s an invisible ectoplasmic object right next to my laptop, would bear a non-semantic property that the actual world lacks, even if the property in question isn’t physical and has nothing to do with “use facts” under any well-established interpretation of the expression.⁵ The reason for this all-inclusive approach to the extension of the subvening base is that Semantic Supervenience isn’t supposed to be a vindication of a use-oriented theory of meaning, nor to hold on condition that the actual world is a physicalist world, nor to be viable as long as non-physical properties are impossible. The business of the thesis is to teach us a *principled* lesson about the nature of the semantic that holds irrespective of whether we believe that meaning is (wholly) determined by use, and irrespective of the truth of physicalism.⁶

Next, we need to say something about the nature of the supervenience relation at work in Semantic Supervenience. This is an indispensable preliminary, since supervenience claims

5 Nota bene: at the beginning of their piece, K&M announce that they will inquire into whether semantic properties supervene on “use facts”. Their terminology is a bit confusing, since under K&M’s construal, which they clarify later on in the paper, the label doesn’t pick out what I would expect most philosophers to mean by “use facts” (e.g., distribution patterns of expression tokens in linguistic behavior); instead, it’s employed as an umbrella term for non-semantic properties as I’m describing them here. I therefore drop the potentially misleading label, but the substance of the setup parallels K&M. Thanks to an anonymous reviewer for pressing me to be explicit about this.

6 On physicalism, see again Fodor and Lepore (1991: 329): “[N]one of this is to be construed as an attempt to legislate physicalism. For present purposes we’re content that semantic properties should be, for example, irreducibly intentional, or irreducibly epistemological, or irreducibly teleological. But we take it to be not on the cards that they are irreducibly semantic. In short, we don’t care whether semantic properties supervene on something that is physical just as long as they supervene on something other than themselves.” Besides, it is fairly easy to produce a working argument against the physical supervenience of the semantic: just take your favorite anti-physicalist argument, work it into a scenario featuring an utterance about a non-supervenient property, and draw the consequences. Example, inspired by Thomas (1998). Suppose I listen to a song and say: “This makes me feel so good!”. Everyone would assume that my utterance is true, since it characterizes an experience I’m having. Now suppose my zombie twin produces the same utterance. He too seems to be talking about an experience. But his utterance cannot be true; he’s a zombie. It would then seem that the utterance of my zombie twin differs semantically from my utterance even if we’re physically indiscernible. Conclusion: semantic properties don’t supervene on physical properties.

lend themselves to a number of different construals, and the tenability of Semantic Supervenience is going to hinge upon what specific kind of supervenience relation we take the principle to ask us to buy into. I will take Semantic Supervenience, as K&M do, to pursue a claim of *strong-global* supervenience (see, a.o., McLaughlin 1995; Stalnaker 1996; Fine 2002; Leuenberger 2008). Accordingly, I will take Semantic Supervenience to consist of the claim that for any two possible worlds w_1 and w_2 , if w_1 and w_2 have the same worldwide distribution of non-semantic properties, then w_1 and w_2 have the same worldwide distribution of semantic properties.

In selecting this construal, I'm excluding from the theoretical landscape *local* supervenience (i.e., the thesis that the semantic properties of individual objects supervene on the non-semantic properties instantiated by those objects), *single-domain* supervenience (i.e., the thesis that the semantic properties of individual classes of things supervene on the non-semantic properties instantiated by those classes of things), and *multiple-domain* supervenience (i.e., the thesis that the semantic properties associated to individual classes of things supervene on the non-semantic properties instantiated by other classes of things). As K&M note, local and single-domain supervenience would require us to take a principled stand against the externalist intuition that the semantic properties of non-semantically indiscernible utterances can be fixed by worldly features like the chemical composition of substances. Multiple-domain supervenience would prevent semantic properties from having in their subvening base the non-semantic properties of the entities that instantiate them.⁷ The formulation also sets aside *weak-global* supervenience, on which Semantic Supervenience would claim that for any two possible worlds w_1 and w_2 , if there is an isomorphism between w_1 and w_2 that preserves non-semantic properties, there also is an isomorphism between w_1 and w_2 that preserves semantic properties. Why? Suppose $W_{@}$ is the actual world,⁸ and that in $W_{@}$ the meaning of 'iron' is fixed by a set of non-semantic properties N (e.g., the atomic structure of iron, the laws of $W_{@}$, and so forth). Suppose W_{Iron} is a possible world which instantiates N, and diverges from $W_{@}$ otherwise. Weak-global supervenience doesn't guarantee that 'iron' will instantiate the same semantic properties across $W_{@}$ and W_{Iron} ; it just guarantees that as a result of the duplication of N there will be *some* semantic isomorphism between $W_{@}$ and W_{Iron} . Strong-global supervenience avoids this implication.

The final clarification concerns the epistemic access to metaphysical possibility. Semantic Supervenience deals with possible worlds: how do we tell whether or not a world is

7 Which seems to be a regular occurrence: think about the morphosyntactic class of an expression, about the observable spatial configuration of a pro-speech gesture, or about the phonological form of an iconic verb. For more on this, see Gasparri (to appear).

8 From here on, ' $W_{@}$ ' will designate the actual world.

possible? Whether whatever is conceivable is also possible, and whether conceivability is a reliable guide to possibility, are thorny issues that go well beyond the scope of this paper. Some argue in favor (e.g., Levine 2001; Stoljar 2001), but there certainly is no shortage of philosophers arguing that conceivability is incapable of providing a dependable test for claims of metaphysical possibility (a.o., Yablo 1993; Hill 1997; Balog 1999; Frankish 2007). For present purposes, and again in keeping with K&M, I will grant conceivability as a test for possibility. Accordingly, I will grant that proof that the interplay of semantic and non-semantic properties can *conceivably* behave in a way that is inconsistent with the suggested formulation of Semantic Supervenience, would falsify the principle. This is granting a lot, of course, but the concession isn't uncommon in the recent literature on supervenience,⁹ and stands to benefit both parties to the debate. The opponent of Semantic Supervenience can enjoy the convenience of a relaxed epistemic bar for claims of metaphysical possibility, and attack the principle with minimal restrictions on the range of possibilia she can wield against the consensus. The advocate of Semantic Supervenience can, in turn, brandish the concession against its adversary in case of failure to deliver a clear argument against the consensus: if even under such a generous epistemic bar for claims of possibility we cannot produce a fair counterexample to the principle, perhaps we really have no reason to refrain from accepting Semantic Supervenience.

3. Semantic Ghosts, Magic, Haeccetistic Twins

We have defined Semantic Supervenience as the claim that no two possible (conceivable) worlds w_1 and w_2 can instantiate the same worldwide distribution of non-semantic properties, and fail to feature the same worldwide distribution of semantic properties. Or, conversely, as the claim that no two possible (conceivable) worlds w_1 and w_2 can instantiate different worldwide distributions of semantic properties while featuring the same worldwide distribution of non-semantic properties.

Semantic Supervenience appears to deliver the goods. Suppose $W_{@}$ doesn't feature a substance composed purely of neutrons. Suppose, further, that W_{Neutrium} is a non-semantic duplicate of $W_{@}$ which differs from $W_{@}$ exclusively in this: in W_{Neutrium} , the phrase "substance composed purely of neutrons" is not referentially empty. Semantic Supervenience predicts that W_{Neutrium} cannot conceivably be a non-semantic duplicate of $W_{@}$, and it's easy to see why this is the correct conclusion. In order for "substance composed purely of neutrons" to be referentially non-empty at a world w , w should feature a substance composed purely of neutrons. However, no two worlds respectively featuring and not featuring a substance

⁹ E.g., see Hattiangadi's (2018) conceivability argument against moral supervenience.

composed purely of neutrons can instantiate the same worldwide distribution of non-semantic properties. So W_{Neutrium} cannot conceivably be a non-semantic duplicate of $W_{@}$.

Semantic Supervenience is also immune to simple scenarios appealing to inverted semantic properties. Suppose W_{Color} is a duplicate of $W_{@}$ differing from $W_{@}$ solely for fact that, in W_{Color} , ‘blue’ means red, and ‘red’ means blue. Suppose, further, that $W_{@}$ and W_{Color} both feature Rebecca. Actual Rebecca and her counterpart in W_{Color} know the meaning of ‘red’ and ‘blue’ in their respective worlds. Rebecca is presented with a blue mug, and asked to write down on a piece of paper the color of the mug she’s been presented with. The inscription produced by actual Rebecca will concatenate the letters , <l>, <u>, and <e>. The inscription produced by “inverted” Rebecca will concatenate the letters <r>, <e>, and <d>. Differences in the distribution of letter tokens on writing supports are non-semantic, or at least have a non-semantic component. $W_{@}$ and W_{Color} will differ physically, relative to the arrangement of the marks of ink left by Rebecca on the piece of paper. And they will differ behaviorally, relative to the manual movements Rebecca will execute in producing the inscription. No two worlds can differ in physical and behavioral properties while also instantiating the same distribution of non-semantic properties. Hence, W_{Color} cannot conceivably be a non-semantic duplicate of $W_{@}$.¹⁰

So far, so good. But these are admittedly entry-level case studies, and nothing guarantees that Semantic Supervenience will hold ground against more sophisticated challenges. As was mentioned, K&M maintain that such sophisticated challenges can be formulated, and that the resulting arguments, inspired by the classical literature against the supervenience of the phenomenal on the physical, provide exactly the kind of defeating conceptual evidence that should lead us to abandon Semantic Supervenience.¹¹

K&M’s case against Semantic Supervenience combines what we might call a “core” component and an “instrumental” component. The “core” component is the description of *three* thought experiments aimed at demonstrating that pairs of worlds can conceivably bear the same distribution of non-semantic properties while failing to instantiate the same distribution of semantic properties. The “instrumental” component is the claim that the retraction of Semantic Supervenience paves the way for promising new solutions to a series

¹⁰ This is already a telling case, as it suggests that unlike classical phenomenal inversion, where differences in qualia structure are conceivably consistent with physical and behavioral indiscernibility (Shoemaker 1982; Block 1990), the inversion of semantic properties seems to carry along non-semantic discernibility.

¹¹ Zhong (2017) makes a similar move against semantic normativism. He argues that semantic normativism has difficulties accommodating the causal efficacy of semantic properties, and raises an exclusion problem for semantic norms inspired by the exclusion problem in the philosophy of mind. It’d be nice to delve into Zhong’s argument, but I’m going to have to leave normativism for another occasion.

of open issues in the philosophy of language (most notably, the semantics of vagueness and arbitrary reference), approaches that weren't viable under the supervenience thesis.

In what follows, I will focus exclusively on the core component of K&M's argument. Besides for the usual suspect (i.e., constraints of space), the restriction of scope rests on the following consideration: even if the explanatory purchase offered by the rejection of Semantic Supervenience were a good reason for liking the proposal, the stability of the picture of semantic properties that informs the instrumental argument is conditional on the absence of a response to the core argument. This is not to say that one should necessarily first establish the core argument, and only then look into the epistemic benefits of dropping Semantic Supervenience, as if the latter were, dialectically speaking, accessory or immaterial to the former. Quite the opposite: it makes complete sense to regard the explanatory advantages potentially offered by giving up supervenience as a reason for considering whether the move stands to scrutiny. However, first, inferences from explanatory gains to matters of metaphysical substance are a delicate matter; there are multiple domains in which we refrain from making them, and semantic properties might fall in that category.¹² Second, even if dropping supervenience did lead to explanatory gains in the analysis of vagueness and arbitrary reference (let's grant that for the sake of argument), such gains would warrant an inference to the best explanation against supervenience on condition that the shift in paradigm is not defeated by rival metaphysical considerations. Otherwise, the advocate of Semantic Supervenience seems entitled to remain unimpressed. Thinking about semantic properties as if they were non-supervenient may as well simplify our analysis of meaning. But if the heuristic picture of semantic properties fueling the move is unstable (because the core arguments in its favor are not conclusive) or vulnerable to non-instrumental counterarguments against its metaphysical viability (as I'll try to show), the prospects of letting it inform one's account of what semantic properties *are* – the subject matter of the present debate – are likely to lose much of their initial attraction.¹³

12 Here's a crude analogy to make the point vivid. Thinking of human subjects as idealized rational agents has allowed decision theory to produce generalizations about agentive behavior that we wouldn't have been able to produce otherwise. At the same time, we have substantial overriding arguments to refrain from taking the notion of an idealized rational agent to settle the nature of actual agents: we accept the explanatory purchase afforded by the notion *and* believe that actual agents are something else entirely. *Mutatis mutandis*, suppose thinking about semantic properties as non-supervenient gives us new insights into the workings of vagueness and arbitrary reference. This doesn't mean that we should *ipso facto* rely on those instrumental gains to draw metaphysical conclusions about the nature of meaning, especially if we can provide non-instrumental considerations against making that inference. On idealization and explanation, see, e.g., Potochnik (2017).

13 Thanks to an anonymous reviewer for discussion on this juncture.

With this mind, we can now turn to the three “core” thought experiments described by K&M. For concision’s sake, I will label them as follows: *Semantic Ghosts*, *Magic*, and *Haeceitistic Twins*.¹⁴

First, *Semantic Ghosts*. Suppose W_{Ghosts} is a duplicate of $W_{@}$ which in addition contains some non-physical ghosts. Suppose, further, that the ghosts of W_{Ghosts} are purely semantic entities which bear semantic properties but lack non-semantic properties. Were purely semantic ghosts conceivable, there would be a conceivable duplicate of $W_{@}$ which instantiates the same worldwide distribution of non-semantic properties as $W_{@}$, and yet fails to instantiate the same worldwide distribution of semantic properties. Purely semantic ghosts, the argument continues, are conceivable. So Semantic Supervenience stands refuted.

Next, *Magic*. Suppose W_{Ordinary} is a duplicate of $W_{@}$ where nobody has uttered and will ever utter the expression ‘abra’. Suppose, further, that W_{Magic} is a duplicate of W_{Ordinary} which differs from W_{Ordinary} only in the fact that in W_{Magic} the expression ‘abra’ has magical powers: if anyone were to utter it, they would cast a spell and turn rocks into unicorns. The magical powers instantiated by ‘abra’ in W_{Magic} , K&M argue, are plausibly part of its semantic properties. Compare with the illocutionary properties of expressions like the verb ‘promise’. Filing the magical powers of ‘abra’ under the rubric of its semantic properties seems an innocent extension of the idea that it is part of the semantic properties of ‘promise’ that, by uttering it as part of an appropriate speech act, one can “speak into existence” the social and practical commitments we associate to the act of promising. Furthermore, regardless of whether you are inclined to regard the specific power of turning rocks into unicorns as something that can reasonably be filed under the rubric of semantic properties, ‘abra’ is a semantic entity, and differences in the properties of semantic entities are semantic differences. Why should we think of ‘abra’ as a semantic entity? Because, K&M argue, ‘abra’ *could* be uttered, and only semantic entities can be uttered. One can “articulate” or “produce” speech sounds without “uttering” any semantic entity, and do so even if sequence of speech sounds in question matches the phonological form of an actual expression type.¹⁵

¹⁴ The labels are mine, but what follows is a charitable summary (with some minor adjustments) of the cases. Note that the scenarios I’m about to describe are all introduced in Section 3 of K&M’s paper, where they discuss, as I’m doing, the thesis of the supervenience of the semantic on the *non-semantic*, whereas Sections 1 and 2 of their article target the supervenience of the semantic on the *physical*. As was mentioned, Semantic Supervenience wouldn’t be moved by proof that the semantic can conceivably fail to supervene on the physical. Also, recall fn. 6 on the “easy argument” from anti-physicalism.

¹⁵ Example: a subject instructed by a speech scientist to pronounce without pauses first the first letter of ‘curious’, then the fourth letter of ‘uncanny’, and finally the second letter of ‘atone’, and engaging in the articulation exercise with the only intention of following the directions of the scientist, might “produce” the

However, genuine acts of utterance can be performed exclusively with semantic entities as their object. These combined considerations make a plausible case that W_{Magic} duplicates W_{Ordinary} non-semanticly but is semantically discernible from W_{Ordinary} . And since W_{Magic} is conceivable, Semantic Supervenience is false.

Finally, *Haecceitistic Twins*. Suppose W_{Twin} is a non-semantic duplicate of $W_{@}$ which instead of Jack contains a doppelgänger of Jack: Twin Jack. Jack and Twin Jack are indiscernible but haecceitistically distinct. Suppose, furthermore, that reference is individuated by haecceitistic properties. Accordingly, that because ‘Jack’ picks out Jack in $W_{@}$, and Twin Jack in W_{Twin} , the reference of ‘Jack’ in $W_{@}$ differs from the reference of ‘Jack’ in W_{Twin} . Now, any standard construal of the thesis of the supervenience of the semantic on the non-semantic, K&M observe, would take it that haecceitistic properties fall outside the base of subvening properties that determine semantic properties. Because of that, $W_{@}$ and W_{Twin} can safely be considered non-semantic duplicates, despite the haecceitistic difference between Jack and Twin Jack. However, utterances of ‘Jack’ in $W_{@}$ and W_{Twin} remain semantically discernible, since they pick out two haecceitistically distinct individuals. $W_{@}$ and W_{Twin} are therefore non-semantic duplicates that instantiate a different worldwide distribution of semantic properties. Once again, Semantic Supervenience stands refuted.

4. Neutralizing the Core Argument

K&M argue that *Semantic Ghosts*, *Magic*, and *Haecceitistic Twins* produce each a successful counterexample to Semantic Supervenience, and lend each substantial support to the notion that semantic properties need not supervene on the non-semantic. In this Section, I argue that these three thought experiments don’t hold up.

Let us start with *Semantic Ghosts*. The cornerstone of this scenario is the conceivability of a world duplicating the worldwide distribution of non-semantic properties of $W_{@}$ and featuring, in addition, “purely semantic ghosts”. What kind of entity is a “purely semantic ghost” supposed to be? Suppose we think of it as an incorporeal aggregate of semantic properties able to subsist as a singular entity: a purely intentional Cartesian soul made up exclusively of semantic properties and without any non-semantic attribute.¹⁶ Accordingly, suppose we construe W_{Ghosts} as a duplicate of $W_{@}$ which differs from the actual world solely in the fact that W_{Ghosts} features an intentional ghost G , which is absent in $W_{@}$.

sound segments corresponding to the word ‘cat’ without necessarily “uttering” the word ‘cat’.

¹⁶ Nothing crucial hinges on this, as the considerations about to follow would readily apply to different construals of what “semantic ghosts” are supposed to amount to. Say, clusters of semantic properties instantiated on some ectoplasmic substratum, or phantom clusters of intentional properties attached to an ordinary object.

At this point, W_{Ghosts} and $W_{@}$ seem indeed separated by a semantic difference while remaining perfect non-semantic duplicates, pace Semantic Supervenience. Consider however the following question: how comes that W_{Ghosts} features G , whereas $W_{@}$ doesn't? Logical space can be partitioned into two classes of responses: either the semantic difference between W_{Ghosts} and $W_{@}$ has some non-semantic ground; or the semantic difference between W_{Ghosts} and $W_{@}$ has no non-semantic ground. Suppose the semantic difference between W_{Ghosts} and $W_{@}$ does have some non-semantic ground. In such a case, there would have to be some difference in non-semantic facts which causes the instantiation of G to occur in W_{Ghosts} , and to fail to occur in $W_{@}$. If so, W_{Ghosts} and $W_{@}$ couldn't conceivably bear the same distribution of non-semantic properties, and the comparison would no longer threaten Semantic Supervenience. Suppose instead the semantic difference between W_{Ghosts} and $W_{@}$ has no non-semantic ground: in W_{Ghosts} , G is *brutely* instantiated. If belief in the brute instantiation of semantic properties is what *Semantic Ghosts* needs us to buy into to warrant skepticism about Semantic Supervenience, two worries arise. First, the actual conceivability of the case is up for grabs: the verdict of conceivability fueling the argument is a bit nonchalant and might not stand to closer scrutiny. Second, and more importantly, the attack looks dangerously conditional on what it should prove.

Compare with the following. Suppose W_{Sink} is a duplicate of $W_{@}$ where my kitchen sink instantiates the property of being in a state of perpetual bliss; the notion that phenomenal properties may be instantiated brutally does not suffer from obvious contradictions; so W_{Sink} is conceivable; but then, W_{Sink} is possible; hence, physicalism is false. The physicalist is likely to reply, with good reason, that this is not a fair attack to her position. Leaving aside the multiple red flags one might want to raise about moving so quickly from conceivability to possibility, which we've decided to grant, it is far from clear that blissfulness can conceivably be brutally instantiated by perfect non-phenomenal duplicates of actual kitchen sinks. The verbal description of the scenario doesn't suffer from obvious contradictions, of course, but the resulting impression of conceivability might be completely *prima facie*, in Chalmers' (2002) sense.¹⁷

Secondly, appeals to the brute instantiation of phenomenal properties are usable (read: eligible to pull any reliable argumentative weight) only modulo an agreement that one can spot cracks in the physicalist thesis without making self-fulfilling anti-physicalist assumptions, not *within* a master argument against physicalism. We can certainly rely on

¹⁷ I'll leave it as that for the time being, but we'll return to issues of conceivability in Section 5, where I'll argue that at least one prominent conceivability argument against the supervenience of the phenomenal on the physical, cannot be refashioned into a conceivability argument against Semantic Supervenience.

Cartesian intuitions to concoct imaginings about worlds haunted by blissful sinks, talking angels, disembodied experiencings, and space-time regions magically instantiating semantic properties. But it would be unfair to take them – and, to the best of my knowledge, no one *de facto* takes them – as evidence of the falsity of physicalism. I believe the advocate of Semantic Supervenience is entitled to a similar reply if pressed with the comparison between $W_{@}$ and W_{Ghosts} . It is controversial to evaluate Semantic Supervenience on the basis of the premise that it is metaphysically possible that semantic facts vary brutally across non-semantically duplicate worlds, since the premise that semantic facts may vary brutally across non-semantically duplicate worlds presupposes a stance on the relationship between the semantic and the non-semantic which is inconsistent from the get-go with the ideology of Semantic Supervenience. Bottom line: *Semantic Ghosts* is at best conditional on a precarious judgment of conceivability, and at worst question-begging.¹⁸

Let us now turn to *Magic*. There are three main components to this counterexample: i) the claim that ‘abra’ is a semantic entity because it can be uttered, and only semantic entities can be uttered; ii) the claim that the magical properties instantiated by ‘abra’ in W_{Magic} are part of its illocutionary properties; and iii) the claim that differences in illocutionary properties among semantic entities have to be classified as semantic differences. K&M’s argument requires the conjunction of these three assumptions to have a clear shot at the claim that the difference between W_{Magic} and the actual world is purely semantic.¹⁹

Yet, I believe that each of these claims can be resisted. First, the claim that only semantic entities can be uttered may have simple counterexamples. Suppose a group of speakers with a taste for phonological stunts decides to play a game which runs on the following two steps. At each turn, a player has to invent a meaningless jabberwocky sentence which complies with the phonotactic constraints of English, and write it on a card. The card is then shown to the other participants, who have to memorize the sentence, wait 30 seconds in silence, and then pronounce it out loud. Player #1 starts, creates the sentence “Pip frew a

18 Child (2019: 224) would seem to concur: “[K&M] are not really offering an *argument* [...]; they are in effect simply asserting that the supervenience claim is false.”

19 Which might as well be attacked on independent grounds, as Child (2019) does. Paraphrasing a bit, his point in this case is the following. Even if the property of turning turning rocks into unicorns were definitional of the semantic properties of magical ‘abra’, and did establish a semantic difference from its actual counterpart, one would still need the appropriate set of nomological or dispositional facts in place to make its utterance efficacious, which in turn would threaten the requirement of full non-semantic indiscernibility needed to attack the supervenience thesis. My response to K&M pursues another strategy: I object on their own grounds to the initial assumption that the power of turning turning rocks into unicorns may plausibly be taken to be definitional of the semantic properties of magical ‘abra’.

meebot”, and the game proceeds as described. It seems perfectly possible to describe the situation as one involving the *utterance* of a newly coined sentence designed to lack semantic properties, at least absent a clear argument that the scope of application of the notion of “utterance” should be restricted to the articulation of entities with semantic properties. None such argument is provided by K&M, who rest content with pointing out that “saying of a non-semantic object that it is uttered results in a kind of category mistake” (p. 341). Yet, statements like “The participants uttered the sentence ‘Pip flew a meebot’” or “Sue uttered her favorite meaningless word” wouldn’t seem to suffer from obvious deficiencies in felicity, unlike paradigm examples of category mistakes like “# John poured his apartment”. So this component of the counterexample is unclear.²⁰

Similar comments apply to the claim that the magical powers instantiated by ‘abra’ in W_{Magic} should be filed among the illocutionary properties of the expression. Turning rocks into unicorns is a *causal* power, not semantic one, as is attested by the fact that we can conceivably ascribe it to utterances of any given expression while remaining completely agnostic about its semantic properties. There’s nothing in particular ‘abra’ should mean to be conceivably invested with the power of turning rocks into unicorns: the word could be nonsensical, denote something completely unrelated to its function (say, pick out the third largest crater on Mars), have no semantic properties whatsoever, and still do its magic. Moreover, going back to the proposed analogy with ‘promise’, paradigm instances of illocutionary force concern cases where the extra-linguistic effects stemming from the use of an expression in the appropriate contexts, can be the result of convention building among speakers. If, for some bizarre lexical cataclysm, the verb ‘promise’ disappeared from the English language, speakers of English could baptize a novel expression (say, ‘flomise’) designed to play the same set of linguistic and social functions. The newly invented word would then be invested with the illocutionary force that ‘promise’ used to have when it was in circulation, and could be used to make promises. By contrast, it is unclear how the magical powers of a word like ‘abra’ could ever be result of convention building among a group of ordinary speakers.

²⁰ Is this just trading intuitions? To some extent it is, but not for the purpose of asserting the superiority of the intuitions of who’s writing, which would be spectacularly unhelpful. The point is to make clear that the restriction of “utterability” to objects with semantic properties cannot be justified on pre-theoretical grounds (since the underlying intuition is not robust), and that the first-pass acceptability of statements like the ones I’ve provided pushes in the opposite direction. In other words, the restriction requires argument, and since there’s *prima facie* evidence against it, wielding it without further qualification against Semantic Supervenience is, dialectically speaking, less than ideal.

Finally, differences in illocutionary properties may not have to correlate with differences in semantic properties. The intuition is the following: any meaningful expression of our language can be brought to bear whatever illocutionary force a group of speakers wants it to bear without *ipso facto* intervening on its semantic properties. Suppose a group of speakers with a sensational fascination for marine invertebrates establishes a Society for the Appreciation of Octopuses. The speakers convene that at the formal meetings of the association, a special rule is in force: uttering the word ‘octopus’ in front of the Society’s disciplinary panel guarantees that the speaker’s testimony is going to be completely sincere and truthful. The example seems to involve the combination of illocutionary variation and semantic indiscernibility K&M wish to rule out: within the collective proceedings of the Society, the word ‘octopus’ has come to instantiate a new illocutionary function, but the change does not correlate with any variation in semantic properties like intension, extension, reference, grammatical class, or semantic type. Absent, again, a specific argument to the contrary, it seems possible to conclude that illocutionary differences may indeed exist between pairs of semantically indiscernible expressions.

Having addressed *Magic*, the last thought experiment in K&M’s lineup is *Haecceitistic Twins*. Recall the main features of the case. W_{Twin} is a duplicate of the actual world differing from $W_{@}$ solely for the fact that, in W_{Twin} , Jack is replaced by Twin Jack, an individual qualitatively indiscernible but haecceitistically distinct from Jack. Because differences in haecceitistic properties fall outside the realm of non-semantic factors that are usually taken to determine semantic properties, K&M argue, $W_{@}$ and W_{Twin} can safely be considered non-semantic duplicates. However, expressions referring to haecceitistically distinct indiscernibles are semantically discernible: the name ‘Jack’ denotes Jack in $W_{@}$, and Twin Jack in W_{Twin} . As a result, the name ‘Jack’ bears different semantic properties across non-semantically duplicate worlds, and Semantic Supervenience fails.

Let us grant, for the sake of argument, the (not entirely innocent or uncontroversial) assumption that expressions referring to haecceitistically distinct cross-world indiscernibles are semantically discernible. Therefore, let us grant that the proposed scenario does entail a genuine difference between the reference of ‘Jack’ in $W_{@}$ and the reference of ‘Jack’ in W_{Twin} . The success of the experiment, then, hinges on the claim that the haecceitistic difference between Jack and Twin Jack does not invalidate the complete non-semantic indiscernibility between $W_{@}$ and W_{Twin} needed to generate a genuine counterexample to Semantic Supervenience. The problem here is the principled feasibility of any attempt to argue that differences in the haecceitistic properties instantiated by two worlds do not entail lack of identity among their distributions of non-semantic properties. Logical space dictates

that any claim in that spirit would have to produce proof either that the haecceitistic difference between Jack and Twin Jack is semantic, or that it is neither semantic nor non-semantic. Now, the haecceitistic difference between Jack and Twin Jack doesn't seem to have anything to do with meaning: if so, how to isolate it from the set of attributes that fix the distribution of non-semantic properties of $W_{@}$ and W_{Twin} , provided that such a distribution is understood to encompass, as we have stipulated, every property which is not semantic in nature?

As you might recall, K&M do propose a way to bypass the complication: the argument that even if the haecceitistic difference between actual Jack and Twin Jack did set a locus of non-semantic discernibility between $W_{@}$ and W_{Twin} , for the purposes of evaluating Semantic Supervenience this non-semantic difference can be ignored, since few would take haecceitistic facts to feature in the subvening base of semantic properties. I agree that most advocates of Semantic Supervenience would exclude haecceitistic properties from the realm of subvening factors that fix semantic properties, assuming they would allow haecceitism in the first place. However, *Haecceitistic Twins* seems to have an opportunistic relationship with this premise. On one hand, the experiment motivates talk of $W_{@}$ and W_{Twin} as non-semantic duplicates by banning haecceitistic properties from the realm of non-semantic facts semantic properties are sensitive to. On the other, the argument claims that 'Jack' differs in reference across $W_{@}$ and W_{Twin} *because* of the haecceitistic difference between actual Jack and Twin Jack. But if the haecceitistic difference between Jack and Twin Jack is the only ground of the difference in reference between 'Jack' in $W_{@}$ and 'Jack' in W_{Twin} , then that difference *is* included in the set of facts that determine semantic properties, contrary to the declared reason for taking the haecceitistic discernibility of Jack and Twin Jack to be non-semantically inert. To put it bluntly: it is a bit odd to argue that $W_{@}$ and W_{Twin} can be considered non-semantic duplicates because the average supporter of the supervenience thesis would take haecceitistic differences to be semantically inconsequential, and then claim that an haecceitistic difference alone can be responsible for a difference in reference. If the sole explanans for the difference in the reference of 'Jack' across $W_{@}$ and W_{Twin} is that Jack and Twin Jack differ haecceitistically, then haecceitistic differences are in fact assumed to have semantic import, which undercuts the proposed motivation to regard W_{Twin} as a genuine non-semantic duplicate of $W_{@}$.²¹ Absent that, *Haecceitistic Twins* poses no threat to Semantic Supervenience.

²¹ To be clear, there's a weaker variant of Semantic Supervenience which would survive this specific objection: the thesis that no two worlds w_1 and w_2 can have the same worldwide distribution of non-semantic, *non-haecceitistic* properties, and fail to have the same worldwide distribution of semantic properties. However, this variant would face two issues. First, it would still be vulnerable to the rest of the observations raised earlier, as well as to the positive arguments I'm about to describe. Second, it would be insufficiently ambitious under haec-

5. Control, Identity, Knowledge

I have argued that Semantic Supervenience survives K&M's "core" anti-supervenience scenarios. In this Section, I will move my defense of Semantic Supervenience one step further, and in a more constructive direction, offering three counterarguments in favor of Semantic Supervenience: an Argument from Control, an Argument from Identity, and an Argument from Knowledge. The arguments follow a shared blueprint: they take a plausible assumption, consider what would happen to it if we were to reject Semantic Supervenience, and show that the rejection of the supervenience thesis would force us to give up the plausible assumption, which in turn generates unwelcome consequences.

Let's begin with the *Argument from Control*. It is widely believed that speakers enjoy at least *some* degree of control over the semantic properties of their language. Depending on the particular metasemantics one is assuming, such a control may be hard or relatively easy to exercise. For example, it is now common wisdom that strict versions of metasemantic externalism, on which word meanings are heavily anchored to external factors such as naturalness, magnetism, dominant sources, and causal chains of historical transmission leading back to origination events (e.g., Evans 1973; Burge 1979; Kripke 1980; Putnam 1975, 1981), curtail speakers' ability to intervene in an efficacious way on standing semantic meaning (Cappelen 2018). Yet, even the most austere brands of metasemantic externalism allow for cases in which speakers are able to engineer the standing meaning of an expression. Suppose that the entire population of speakers of English gathers together in a meaning change assembly, the Platybat Congress. After careful deliberation and a unanimous vote, the participants establish that 'wombat' should denote platypuses, and that 'platypus' should denote wombats. They update the lemmas of the two terms in official dictionaries, and start to use them without exception in this revised semantic construal. No matter your prior metasemantic persuasions, you should allow that at least in scenarios of this sort, featuring cases of exceptionally tight agentic coordination, the population of speakers has managed to effect actual top-down change in the semantic properties of 'wombat' and 'platypus'.²² In

ceitism, since it wouldn't adjudicate supervenience in a framework admitting qualitatively indistinguishable possible worlds that differ in non-qualitative respects.

²² Equivalently, suppose we intend to intervene on the semantic properties of 'water' and, to do that, we time-travel to the past and change the history of the word 'water'; or that, with the same purpose in mind, the entire population of speakers of English leaves Earth and settles on Twin Earth. In both cases, even Cappelen's (2018) *Austerity Framework* would grant that we have managed to effect change in the semantic properties of 'water'. In the event you don't find the Platybat Congress case particularly convincing, feel free to restate the argument using any of these two further scenarios. For more on the interplay of externalism and semantic intervention, see, e.g., Koch (2021).

short, it seems safe to assume that a reasonable metaphysics of meaning should make room for a (however austere and practically demanding) class of processes P such that, by implementing a process in P, speakers can exercise non-lucky, causally efficacious control over the semantic properties of the expressions of their language.

Now suppose W_{Platybat} is a minimal duplicate of $W_{@}$ where the Platybat Congress has just taken place. Further, reject Semantic Supervenience. If Semantic Supervenience is false, no two worlds instantiating the same worldwide distribution of non-semantic properties are guaranteed to instantiate the same worldwide distribution of semantic properties. Accordingly, no world duplicating the worldwide distribution of non-semantic properties of W_{Platybat} is guaranteed to instantiate the same worldwide distribution of semantic properties as W_{Platybat} . This means that no world duplicating the worldwide distribution of non-semantic properties of W_{Platybat} is guaranteed to be a world where ‘wombat’ denotes platypuses. But this is consequential: if no world duplicating the worldwide distribution of non-semantic properties of W_{Platybat} is guaranteed to be a world where ‘wombat’ denotes platypuses, how can we be sure that it manages to denote platypuses in W_{Platybat} itself? Granted, that *may* well be the case, but not necessarily *because* the collective deliberation of the speakers gathered in the Platybat Congress entails the relevant change in meaning. In fact, in the heavens of possibilities there are countless non-semantic replicas of W_{Platybat} where the Platybat Congress takes place, and yet ‘wombat’ continues to refer to wombats.²³ Variants of the point would readily apply to cases involving metalinguistic negotiation, utterances of nonce words with a salient meaning, or the coinage of new technical terms. In short, it seems that the rejection of Semantic Supervenience is bound to jeopardize our initial assumption that it is possible for speakers to exercise efficacious, reliable, non-lucky control over the semantic properties of their language.²⁴ This is a major downside; so we should accept Semantic Supervenience.

23 *Objection.* The existence of close possible worlds where the Platybat Congress occurs without causing any actual change in semantic properties, doesn’t show we should be skeptical about its efficacy in W_{Platybat} , and extend the resulting concerns to the actual world. Perhaps W_{Platybat} and $W_{@}$ feature the kind of nomological properties that allow the Platybat Congress to produce the desired meaning change, and we shouldn’t be moved by the existence of possible worlds lacking this favorable nomological terrain. *Reply.* By definition, the non-semantic properties instantiated by a world include its nomological properties. *Ex hypothesi*, non-semantic duplicates of W_{Platybat} have the same nomological properties as W_{Platybat} , which in turn is a non-semantic duplicate of $W_{@}$. It follows that if Semantic Supervenience is false, there are countless particle-by-particle duplicates of $W_{@}$ featuring the same nomological regularities of the actual world, where the occurrence of the Platybat Congress wouldn’t yield meaning change. So nomological considerations do not help contain the damage.

24 Emphasis on “our initial assumption that”. The point isn’t that the causal inefficacy counterfactually licensed by the rejection of Semantic Supervenience entails that in $W_{@}$ speakers have no control over semantic properties. The point is that absent Semantic Supervenience, we can no longer be *confident* in our belief that our

Next, the *Argument from Identity* (inspired by Stich and Laurence 1994). As was made clear, for one class of properties, A, to fail to strong-globally supervene on another class of properties, B, there should be pairs of possible worlds instantiating the exact same distribution of B-properties while failing to instantiate the same distribution of A-properties. On Semantic Supervenience, the base class of properties on which the semantic supervenes encompasses the entire distribution of non-semantic properties of a world. Now take two arbitrary worlds, w_1 and w_2 , such that w_1 and w_2 instantiate the exact same set of non-semantic properties. *Ex hypothesi*, w_1 and w_2 share, a.o., the same micro-physical properties, the same haecceitistic properties, the same spatiotemporal location, the same metaphysical structure, the same laws, the same history, the same relational, functional, and behavioral properties. But there's no way two worlds can have the same micro-physical properties, the same haecceitistic properties, the same spatiotemporal location, the same metaphysical structure, the same laws, the same history, the same relational, functional, and behavioral properties – without being *identical*. If they are identical, w_1 and w_2 instantiate the same distribution of properties *simpliciter*. But if they instantiate the same distribution of properties *simpliciter*, they also instantiate the same distribution of semantic properties. Hence, semantic properties have to supervene.

One might worry: how isn't this the same circular nonchalance I was complaining about in the discussion of *Semantic Ghosts*? Isn't this smuggling the truth of Semantic Supervenience in the common ground instead of providing an argument for it? Not quite: it's being explicit about the extensional implications of perfect non-semantic indiscernibility, and arguing that the weight of such implications pushes the ball towards my opponent's court. For there are two possible ways to block the argument. The first is simply to insist that worlds sharing, a.o., the same micro-physical properties, the same haecceitistic properties, the same spatiotemporal location, the same metaphysical structure, the same laws, the same history, the same relational, functional, and behavioral properties – can nonetheless instantiate different distributions of semantic properties. Which, to escape objections of circularity, would require an independent argument I don't see on the horizon. The second is to insist that worlds sharing, a.o., the same micro-physical properties, the same haecceitistic properties, the same spatiotemporal location, the same metaphysical structure, the same laws, the same history, the same relational, functional, and behavioral properties – are not guaranteed to be identical and, e.g., perfectly equally close to other possible worlds. Which would shift the burden of proof on the notion of "identity" underlying the response, and on whether that stands to independent scrutiny. Both options, as far as I can tell, face an uphill climb. Absent a more

world is one where that the brand of metasemantic control that matters to the argument is possible.

specific and non-question-begging proof that it is metaphysically possible for complete non-semantic indiscernibility to fail to entail full-blooded identity, the proposed line of reasoning should, in fact, put an additional dialectical burden on the case against supervenience.

Finally, the *Argument from Knowledge*. As we have seen, part of K&M's rationale is to argue that Semantic Supervenience is vulnerable to a variant of the battery of classical arguments against the supervenience of the phenomenal on the physical. Let's take the suggestion to heart. Anti-physicalists in the philosophy of mind have appealed to the conceivability of phenomenal zombies to claim that phenomenal properties don't supervene on the physical. One prominent consideration in favor of the conceivability of zombies is, famously, the intuition that omniscience about the non-phenomenal does not guarantee phenomenal knowledge (Jackson 1982; Chalmers 1996). If semantic properties didn't supervene on the non-semantic, we would then expect to be able to make a case for semantic zombies via a semantic variant of the knowledge argument.

With that in mind, let W_{Zenglish} be a duplicate of $W_{@}$ differing from $W_{@}$ exclusively in the following: in W_{Zenglish} , the vocabulary items of English are replaced by zombie replicas without semantic properties. W_{Zenglish} is indiscernible from $W_{@}$ physically, functionally and behaviorally. Speakers of Zenglish behave exactly like speakers of actual English; they go about their daily lives exactly like we do; they debate just like we do about whether or not semantic properties are supervenient; and subscribe to the same metalinguistic statements we believe true of $W_{@}$. They say, e.g., that 'triangle' designates triangles, that 'triangle' is of type $\langle e, t \rangle$, that the sentence "Triangles have three sides" is true by virtue of meaning, and so forth. However, every true statement about the semantic properties of actual English is false of Zenglish. Pace the intuitions of speakers of Zenglish, in W_{Zenglish} 'triangle' doesn't refer to triangles; it isn't of type $\langle e, t \rangle$; "Triangles have three sides" is not true by virtue of meaning.

Is W_{Zenglish} conceivable? To have a semantic variant of the knowledge argument for the conceivability of W_{Zenglish} , we should be able to elicit the intuition that omniscience about the non-semantic does not warrant semantic knowledge: it should conceivably be impossible to derive knowledge of the semantic properties of an actual expression of English from omniscience about the non-semantic properties of $W_{@}$. However, this seems problematic. First, intuition suggests that an ideal rational agent with a complete grasp of the non-semantic properties of $W_{@}$ *would* be in a position to acquire knowledge of English semantics through appropriate inference-making, much as it happens in regular instances of language learning.²⁵

²⁵ Think of language acquisition in children, and recall that, by definition, observable linguistic behavior – e.g., the articulation of specific patterns of speech sounds in specific contexts by a group of caregivers – belongs to the realm of non-semantic facts.

Second, denying ideal, non-semantically omniscient agents that ability, would have crippling consequences on our own ability to claim a reliable epistemic access to actual semantic properties.

The reasoning is as follows. Assume that complete knowledge of the distribution of non-semantic properties of a world w and ideal reasoning powers entail an ability to know the semantic properties of w . Call this, for brevity, the Access Rule. By the Access Rule, an inferentially omnipotent being with a perfect grasp of the worldwide distribution of non-semantic properties of $W_{@}$, would *ipso facto* have knowledge, or be in a position to gain knowledge, of the semantic properties of English. Also by the Access Rule, an inferentially omnipotent being with a perfect grasp of the worldwide distribution of non-semantic properties of W_{Zenglish} would *ipso facto* have knowledge (or be in a position to gain knowledge) of the semantic properties of Zenglish. However, *ex hypothesi*, $W_{@}$ and W_{Zenglish} are indiscernible in everything that doesn't pertain the distinction between English and Zenglish. But then, our inferentially omnipotent being with a perfect grasp of the worldwide distribution of non-semantic properties should be able to derive two radically different conclusions (the semantic facts of $W_{@}$ and W_{Zenglish}) from the exact same set of premises (the non-semantic facts of $W_{@}$ and W_{Zenglish}). Which means that our non-semantically omniscient being will be semantically ignorant in at least one of the two worlds. In other words, we agree that knowledge of semantic properties can be reliably acquired by rational inference-making based on the non-semantic properties of a world. However, it turns out that rejecting Semantic Supervenience prevents that, since it no longer allows the combination of non-semantic omniscience and ideal reasoning powers to rule out the risk of semantic ignorance. If the combination of non-semantic omniscience and ideal reasoning powers does not entail the ability to acquire semantic knowledge, how do we secure ordinary speakers' epistemic access to semantic knowledge in the actual world itself, provided semantic nativism is false and ordinary speakers acquire semantic knowledge through the observation of the non-semantic? Or how do we rule out that the English we all use isn't Zenglish, since after all $W_{@}$ is by definition a perfect non-semantic duplicate of W_{Zenglish} ?²⁶

To sum up: without Semantic Supervenience the Access Rule produces inconsistent results; in the absence of something doing the job of the Access Rule, semantic properties are

²⁶ For the record, none of this has the backward implication that we have no way of making sure that we're phenomenal zombies, or no way of grasping the phenomenal properties instantiated by our current experiential states. As far as phenomenal properties are concerned, we can dodge the skeptical bullet I'm firing at W_{Zenglish} by acknowledging via non-conceptual introspective means that we're occurrently having an experience with such and such "raw" phenomenal characteristics. See, e.g., Giustina (2019). Of course, the reasoning holds provided you're not an illusionist à la Frankish (2016), but that's another matter altogether.

no longer guaranteed to be knowable via the observation of the non-semantic; which in turn puts speakers and semantic theories in the actual world under the threat of a massive error theory about the semantic properties actually instantiated in $W@$. Put the pieces together, and the emerging conclusion is that the rejection of Semantic Supervenience paves the way for a radical form of skepticism about our ability to reliably track the distribution of semantic properties instantiated at the actual world. This is a deeply undesirable result.²⁷ So we'd better believe in Semantic Supervenience.

6. Conclusion

This paper has proceeded as follows. Section 1 introduced the thesis of the supervenience of the semantic on the non-semantic, and set the roadmap of the paper. Section 2 defined Semantic Supervenience as the claim that no two possible worlds can instantiate the same worldwide distribution of non-semantic properties, and fail to instantiate the same worldwide distribution of semantic properties. Section 3 described the three counterexamples fueling K&M's "core" case against Semantic Supervenience: *Semantic Ghosts*, *Magic*, and *Haecceitistic Twins*. Section 4 argued that K&M's counterexamples don't hold up. Section 5 presented three counterarguments for Semantic Supervenience: an *Argument from Control*, an *Argument from Identity*, and an *Argument from Knowledge*.

I have argued that Semantic Supervenience isn't vulnerable to a semantic variant of the classical arguments against the supervenience of the phenomenal on the physical, and made my case that the rejection of Semantic Supervenience generates unwelcome consequences. Though often assumed without explicit argument, there are substantial reasons to believe in the received wisdom: semantic properties supervene.

²⁷ In and of itself and *dialectically*, for it runs counter the stipulation introduced in Section 2 with noting that if semantic properties were not knowable or we were at risk of being massively mistaken about them (or to be merely luckily correct about them), we wouldn't be in a position to make reliable judgments about the semantic properties instantiated at any given world, which would undermine the very enterprise of determining whether Semantic Supervenience stands to scrutiny.

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