

Weak Generics¹
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Abstract

Some generic sentences seem to be true despite the fact that almost all the members of the relevant kind are exceptions. It's controversial whether generics of this type express relatively weak generalizations or relatively strong ones. If the latter, then we're systematically mistaken about their truth, but they make no trouble for our semantic theorizing. In this brief note, I present several arguments for the former: sentences of the relevant type are weak generics.

Some generic sentences express relatively strong generalizations. For example, one might paraphrase the meaning of *tigers have stripes* by saying that tigers *generally*, *typically*, or *almost always* have stripes. But some generics express relatively weak generalizations. Among those of this sort, some (namely, "type B" generics) involve the predication of a "striking" property (Leslie 2007; 2008; 2017). *Mosquitoes carry the West Nile virus* is a celebrity in this group. Fewer than one percent of mosquitoes carry the virus, but the sentence is intuitively true. This suggests that it's almost as weak as an existential. According to Leslie, its truth demands nothing more of the world than that (very roughly) some mosquitoes carry the West Nile virus and the rest have a disposition to do so.

One of the central aims of a semantic theory of generics is to provide a systematic account of the strength of strong generics and the weakness of weak ones. Type B generics make this task immensely difficult. Strong generics push us in one direction; type B generics pull us in the other. Even the most promising semantic theories have trouble accommodating them. It's no wonder that consensus remains elusive. According to Leslie, we stand a better chance of making progress if we reorient our approach away from formal semantics and toward the science of generic cognition.

One reaction to Leslie's argument is that tokens of type B are ambiguous between a false generic interpretation and a true capacity reading (Asher and Pelletier 2012; Nickel 2016). Insofar as we intuit the truth of *mosquitoes carry the West Nile virus*, we take it to mean that mosquitoes have the capacity to carry the West Nile virus. And if that's right, then our intuitive evaluation of the *mosquito*-sentence doesn't really impinge on the semantics of generics.

Sterken (2015a, p. 76-79) persuasively argues against the ambiguity strategy. I won't repeat all of her arguments, but I'll quickly summarize one.

- (1) #Mosquitoes carry the West Nile virus, but they don't because the virus has been eradicated.
- (2) Mosquitoes have the capacity to carry the West Nile virus, but they don't because the virus has been eradicated.

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If the *mosquito*-sentence were ambiguous in the relevant sort of way, then (1) would have a reading on which it's equivalent to (2). On that reading, (1) would be unproblematic. But the only reading of (1) that I'm able to detect is problematic.

Sterken (2015*a*; 2015*b*; 2017) argues for a less concessive response to Leslie: all type B generics are just false. We're not misidentifying a truth in the vicinity and thereby getting *something* right, as the ambiguity theorist maintains; we're simply making a mistake—one that manifests a certain degree of “semantic blindness”. If Sterken is right, then type B generics don't make trouble for any promising semantic theory, nor do they motivate a large-scale reorientation of method.

Is Sterken right? Some authors seem to think so (Saul 2017). I'd like to present several reasons for thinking otherwise.

Sterken's case relies on conjunctions of the following sort:

(3) #Mosquitoes carry the West Nile virus, but typically they don't.²

Sentences of this sort sound contradictory. But if the initial conjunct were nearly as weak as an existential, one would expect them to be coherent. Consider Leslie's analysis:

(4) Some mosquitoes carry the West Nile virus, and the rest are disposed to, but typically mosquitoes don't carry the West Nile virus.

It sounds fine.

Sterken suggests that (3) sounds contradictory because it is contradictory (2015*a*, p. 83; 2015*b*, pp. 2508-2509; 2017, p. 9). The initial conjunct expresses a generalization that's basically equivalent to the claim that mosquitoes typically carry the West Nile virus. And this generalization is straightforwardly denied in the second conjunct. Furthermore, since *mosquitoes carry the West Nile virus* is basically equivalent to *mosquitoes typically carry the West Nile virus*, our intuitive assessment of its truth is mistaken. Far too few mosquitoes are carriers of the virus for the typicality generalization to be true. Similar reasoning applies to all type B generics. If the argument succeeds in one case, then plausibly it succeeds in all.³

However, if (3) were a genuine contradiction, as Sterken suggests, then we should be unable to eliminate its inconsistency by simply adding more information. In general, one can't achieve coherence by supplementing $p \wedge \sim p$ with q . But the apparent inconsistency of (3) is eliminable in precisely this way:

(5) Mosquitoes carry the West Nile virus, but because the overwhelming majority inhabit circumstances that fail to trigger their disposition to do so, they typically don't.

² Sterken also relies on claims about disagreement, but I think these claims raise fundamentally the same issues as (3). Contradictions are, after all, disagreements with oneself.

³ Won't Sterken's argument overgeneralize? That is, won't it imply that even *paradigm* generics (not just tokens of type B) are false? *Birds lay eggs, but typically they don't* sounds contradictory, after all. Sterken is aware of this worry and addresses it (2015*a*, p. 86). She also doesn't rule out the possibility of a more expansive error theory.

This sentence is perfectly fine.

There are other contexts in which (3) is coherent. Think of a setting in which someone tries to soothe her aerophobic friend's anxiety before an upcoming flight. She does so in a tactful way, acknowledging the validity of her friend's fear but communicating that the risk is negligible. She says,

- (6) Air travel is a lot safer than it used to be, but you're right: airplanes still crash. Though, typically, they don't.

This sentence seems completely unproblematic. And it's quite easy to adapt the general form of this example to fit (3).

Suppose you're trying to soothe your anopheliphobic friend's anxiety before he heads to a swamp teeming with mosquitoes. You don't want to be a jerk about it, so you make sure to acknowledge the validity of your friend's fear. But you also want to unequivocally assure him that the risk is low. So you say,

- (7) Mosquitoes aren't as dangerous as we thought, but you're right: they still carry the West Nile virus. Though, typically, they don't.

Again, this seems completely unproblematic.

The felicity of (5)-(7) can't be squared with the hypothesis that all type B generics are "close in meaning" (Sterken's phrase) to a corresponding *typically*-sentence. But there's more. Consider:

- (8) *a.* Bob might be in his office; in fact, he must be.
b. #Bob must be in his office; in fact, he might be.

The contrast between the felicity of (8*a*) and the infelicity of (8*b*) is evidence that *must* is logically stronger than *might*. One can easily qualify an utterance by saying something stronger, but it's very difficult to qualify an utterance by weakening what one says (Horn 2021; cf., Lewis 1979). Now, for the sake of argument, assume that 90 percent of mosquitoes carry the West Nile virus and consider the following pair of sentences:

- (9) *a.* Mosquitoes carry the West Nile virus; in fact, they typically do.
b. #Mosquitoes typically carry the West Nile virus; in fact, they do.

The relationship between the generic sentence in the initial clause and the *typically*-sentence in the follow-up clause patterns with *might* and *must* in (8), as Leslie's theory predicts.⁴

⁴ Strong generics don't exhibit this behavior. Consider:

- (10) *a.* ??Tigers have stripes; in fact, they typically do.
b. #Tigers typically have stripes; in fact, they do.

One question remains: why does (3) initially sound contradictory? It might be helpful if we approach the question by focusing first on a slightly different sort of case—one that involves a challenge to the attribution of a disposition.

Suppose you and I are having a conversation about our mutual friend, Hank. You and he have recently become friends (though it's been a little while) and we're now discussing Hank's background. At one point, I say, *Hank is disposed to drink excessively; that's why people call him The Tank*. You might then say, *Really? I've never seen him drink excessively, and we go drinking quite often*. Now I might respond to your statement in any number of ways. For example, I might say, *Maybe the rumors about him are false*, thereby retracting my initial claim; or I might say, *Well, the disposition isn't as strong as it used to be*, thus softening my claim; or I might say, *He controls himself around people he doesn't fully trust*, and in that way offer a conciliatory explanation of the fact that Hank's disposition isn't triggered in the circumstances where you've observed him drink. The felicity of each response indicates that your statement poses a challenge for me. But that means there's an underlying tension between my initial statement and your reaction to it. What could the source of this tension be? I don't think it's a great mystery: the disposition to φ is incompatible with the frequent absence of φ ing in circumstances that trigger the disposition. This conflict might be resolved by an explanation of the appropriate kind—one that says the circumstances in which φ ing has been absent are not circumstances that trigger the disposition's manifestation. And that's the kind of resolution I would opt for if I said that Hank controls himself around new friends. The conflict might also be resolved in a much more subtle way, by the charitable accommodation of the conciliatory explanation (Lewis 1979). That is, even if I (the speaker) don't explain the situation in order to resolve the apparent tension, you (the interpreter) might cooperatively adjust your state of mind and take on board the assumption that your frequent outings with Hank were not circumstances of the sort that would trigger his disposition to drink excessively. Silently accommodating in this way demands more of you than just a spirit of cooperation. It requires that you exercise a bit of insight. So it may be more effortful, and thus less likely. The most probable reaction to our conversation, then, is that you've contradicted my initial statement.

This line of thought sheds light on why (3) sounds contradictory when one first encounters it: the conciliatory explanation that would harmonize the initial clause (*mosquitoes carry the West Nile virus*) with the follow-up clause (*...but typically they don't*) isn't immediately obvious. Obtaining it is effortful and requires slow, careful evaluation. We have to be willing to treat our initial knee-jerk reaction critically. The difficulty is compounded in the case of (3) because the assessment of a type B generic doesn't proceed by drawing on one's explicit background knowledge of mosquito dispositions (very few of us have this sort of knowledge); it proceeds via the application of default heuristics and biases which serve as fallible proxies for such knowledge (Leslie 2007; 2017). Drawing on the now familiar framework of Tversky and Kahneman (1982), Leslie maintains that the evaluation of (3) engages "System 1": a form of cognition that's automatic, fast, and overridden only with great care and

To my ear, (10a) is worse than (9a). Overwhelmingly, my informants corroborate this judgment. It shouldn't be surprising that we don't get the kind of contrast in (10) that we observe in (8) and (9). *Tigers have stripes* is about as strong as *tigers typically have stripes*.

concentration. It's not surprising, then, that the conciliatory explanation typically eludes us: grasping it requires "thinking slow" when we're actually given to "thinking fast" (Kahneman 2012). Once the explanation is made obvious, as it is in (5), one no longer senses a contradiction.⁵

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