Falsifying generic stereotypes

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Abstract

Generic stereotypes are generically formulated generalizations that express a stereotype, like “Mexican immigrants are rapists” and “Muslims are terrorists.” Stereotypes like these are offensive and should not be asserted by anyone. Yet when one of them is asserted in a conversation, it is surprisingly difficult to provide a successful rebuttal. The meaning of generic sentences is such that they can be true in several different ways. As a result, a speaker who is challenged after asserting a generic stereotype, can often simply dismiss the objection and maintain that the stereotype is true in a way that is compatible with the challenger’s objection. In this paper, a semantic theory for generics is presented that accounts for this type of defensive shifting. This theory is then used to develop two strategies to efficiently respond to generic stereotypes. The first strategy is to immediately deny that either of the two possible ways in which a generic can be true obtains. The second strategy is to deny the satisfaction of an additional condition that is necessary for a generic sentence to be true.

Introduction

In 2015, then still presidential candidate Donald Trump said, referring to Mexican immigrants, that “They’re bringing crime. They’re rapists. And some, I assume, are good people.”¹ When harmful stereotypes like these are broadcasted to millions, the press has an obligation to respond. Most newspapers aimed to do so by publishing a fact-check of the sentence “Mexican immigrants are rapists.” Yet those who were tasked with checking the truth of this sentence faced a considerable challenge. After all, what exactly does this sentence mean and what evidence would suffice to determine that it is false?

Upon reflection, it is obvious that this sentence cannot be falsified by simply providing evidence of some counterexamples. A sentence of the form “Ks are F” does not express a universal generalization and hence can be true even when there are exceptions. The more innocuous sentence “Ravens are black,” for instance, is true even though some ravens are white. Trump himself also recognized that there are

¹ The majority of journalists interpreted ‘they’ as referring to Mexican immigrants. Trump himself later clarified that he intended to refer to undocumented Mexican immigrants. Here I will stick to the formulation most fact-checkers aimed to refute, according to which ‘they’ referred to all Mexican immigrants. See for example Lee (2015) in The Washington Post.
exceptions to his stereotypical generalization since some Mexican immigrants – *he assumed* – are good people.

Generalizations of the form “*Ks are* *F*” are called *generics* because they characterize a kind directly, without explicitly specifying how many members of the kind instantiate the predicated property. It is common for stereotypes to be formulated as generics. That is partly because there is something about the meaning of generic sentences that makes them difficult to fact-check and falsify. Consider the following three examples of generic stereotypes, compared to three examples of explicitly quantified stereotypes:

1. Mexican immigrants are rapists.
2. Muslims are terrorists.
3. Black people are criminals.
4. All Mexican immigrants are rapists.
5. Most Muslims are terrorists.
6. Most blacks are criminals.

Each of these sentences expresses a stereotype, that is, a false and negative generalization about a social group.\(^2\) Sentences (4-6) express explicitly quantified stereotypes. If one of these sentences were to be asserted in public, it would be clear based on what evidence a fact-checker could falsify it. This would also be the case if one of these sentences were to be asserted in a conversation and someone would want to rebut the speaker. A successful rebuttal, as I use the term here, is a valid objection to a speaker’s statement such that it would be inconsistent for that speaker to accept the truth of the premises of the objection without recognizing that the original statement was false. When a stereotype like (4) is asserted by a speaker, for instance, a successful rebuttal could be formulated by providing even a single example of a Mexican immigrant that is not a rapist.

Generically formulated stereotypes like (1-3), however, are more difficult to falsify and rebut, even though they express generalizations that are equally if not more offensive than explicitly quantified stereotypes. Imagine, for example, trying to rebut someone’s claim that “Mexican immigrants are rapists.” Part of what seems offensive about this statement is that it can be understood as conveying a broad generalization, based on which one would be justified in expecting a Mexican immigrant to be a rapist. Yet if one were to object to this statement by offering evidence that the majority of Mexican immigrants are

\(^2\) Although social psychologists currently prefer a more neutral definition of the term ‘stereotype,’ I will use this somewhat old-fashioned definition for the purposes of this paper. For some background on these definitional issues, see for example Whitley & Kite (2010).
of course not rapists, the speaker would still not be forced to acknowledge that the original claim was false. The speaker could simply accept the objection and maintain that the stereotype is nevertheless true, for instance based on the bigoted belief that there is something about the nature of Mexican immigrants that causes some of them to be rapists, even if most of them suppress their true violent tendencies.

This defense would of course be grounded in racism and ignorance, yet the point here is that the meaning of “Mexican immigrants are rapists” appears to allow for this type of response when the speaker is faced with the objection that most Mexican immigrants are not rapists. There are, after all, many generics that are true even though only a small minority of the kind instantiates the predicated property. The sentence “Sharks attack bathers” is a true generic, for example, even though few of them ever do. Similarly, “Sea turtles are long-lived” is true even though most sea turtles are killed shortly after hatching. Hence one cannot successfully rebut a generically formulated stereotype by pointing out that only a very small minority of the kind instantiates the negative property. The speaker would be able to maintain that the stereotype is true in the same way generics like “Sharks attack bathers” are true (Leslie 2017).

Imagine, however, that one would have initially responded by denying that there is a causal relation between being a Mexican immigrant and being a rapist. That there is such a causal relation does seem part of what is conveyed by the statement “Mexican immigrants are rapists,” making it such an offensive thing to say. Yet such a response would not constitute a successful rebuttal either, since the original speaker would be able to accept the objection while still maintaining that the stereotype is true. “Indeed,” the speaker might respond, “being a Mexican immigrant does not cause one to be a rapist. Nevertheless, Mexican immigrants are rapists. After all, the Mexican government is actively sending their rapists across the US border.”

Again, the reasoning provided would be based on ignorance, but it is the meaning of the generic stereotype that allows for this type of defense. After all, many generic sentences are true even though no causal relation exists between the nature of the kind and the generalized property. “American barns are red” and “Bulldozers are yellow” are true generics, for instance, though these colors are not caused by the nature of the kind. So when a generic stereotype is challenged based on the objection that the suggested causal relation does not exist, the speaker can respond that the stereotype is nevertheless true in the same way a generic like “American barns are red” is true.

Hence it is no coincidence that stereotypes are often formulated as generics. Generic stereotypes are difficult to falsify and successfully rebut in a conversation. Their meaning appears to be ‘slippery’ in some way, allowing a speaker to continue to defend the truth of their stereotype in whatever way remains unchallenged by the initial objection. It is this semantically sanctioned ‘defensive shifting,’ as it has been
called, that causes frustration when aiming to respond to generic stereotypes in a conversation (Langton et al. 2012). In this paper, I develop a new semantic theory about generics that explains why the meaning of generic stereotypes is slippery and allows for this defensive shifting. This theory also naturally suggests two strategies for responding to generic stereotypes more efficiently, avoiding the possibility of defensive shifting. The first strategy takes the underspecified truth-conditions of generics into account by immediately denying both ways in which a generic can be true. The second strategy capitalizes on an additional necessary truth-condition for generics.

1. The conjunctive strategy

1.1 The underspecified meaning of generics

To successfully respond to assertions of generic stereotypes, one must understand their truth-conditions. Unfortunately, all the most promising semantic theories about generics face some counterexamples (Leslie 2007, 2008; Sterken 2015a, 2017). The difficulty in explicating the truth-conditions of generics stems from the variety one finds among true generics. So, before we focus on the meaning of generic stereotypes, let us look at a broader class of generic sentences. A semantic theory for bare plural generics of the form “Ks are F” should be able to account for the truth of generics of each of the following three types:

Type 1 generics:

7. Sea turtles are long-lived.
8. Sharks attack bathers.

Type 2 generics:

9. American barns are red.
10. Bulldozers are yellow

Type 3 generics:

11. Ravens are black.
12. Birds can fly.

The difference between these three types of generics – or so I will argue – lies in the condition that accounts for their truth. There is no uniform condition that accounts for the truth of each of the above generics, though several interesting proposals have been made in the literature. I will shortly discuss two of these proposals before introducing an alternative.
On Nickel’s view, all generics say that there is a (contextually) suitable mechanism that explains why some members of the kind instantiate the generalized property (Nickel 2008, 2016). Sentence (11) would be true on this view, for example, because there is an evolutionary mechanism that explains the blackness of ravens. The mechanism that causes some albino ravens to be white, on the other hand, is not suitable to ground the truth of “Ravens are white” because it is not a suitable evolutionary mechanism. Properly spelled out, Nickel’s mechanistic-explanatory view is able to account for the truth of several generics, including (7-8) and (11-12) above.

Nevertheless, the existence of a suitable explanatory mechanism cannot be a necessary truth condition for generics. Consider sentence (9) above. On Nickel’s view, the truth of this generic is not based on the number of American barns that are red but rather based on the mechanism that is responsible for the redness of (at least some) American barns. There is such a mechanism; farmers in rural areas used to paint their barns with a mixture of linseed oil and the widely available ferric oxide (i.e. rust) as protection against fungi. However, if this is a suitable mechanism to ground the truth of (9), then “American barns are white” should be true just as well. In areas where paint was available that made use of white lead instead of ferric oxide, barns were painted white. Given that both mechanisms are nearly identical and the number of barns that are red or white cannot make any difference, both generics ought to be true. Yet “American barns are white” is not a true generic sentence. Instead, one rather seems to judge (9) as true at least partly based on the sheer number of American barns that are red. Similarly (10) appears to be true based on the number of bulldozers that are yellow, rather than based on whether there is a suitable mechanism that is causally responsible for the yellow color of at least some bulldozers. So even though Nickel’s mechanistic condition for generics appears to be well-suited to account for the truth of generics of type 1 and type 3, it cannot explain the truth of type 2 generics.

Nickel’s account is actually more complex. Although the mechanistic condition presented here is supposed to account for the truth of generics, it is strictly speaking not the semantic truth condition of generics. For Nickel, the semantic content of a generic of the form “Ks are F” is that there is a normal way for members of the kind to be with respect to a determinable of F, such that all members of the kind that are normal in that way instantiate F. The content expressed by a generic existentially quantifies over ‘ways of being normal.’ A way of being normal, on Nickel’s view, corresponds to a contextually suitable mechanism that explains why some members of the kind K instantiate F. Hence ultimately a generic is true if there exists a contextually suitable mechanism that explains why some members of K instantiate F (Nickel 2008, 2016).

Other generics, furthermore, are true even when there is no mechanism at all that explains why members of the kind instantiate the predicated property. This is the case for “Up quarks have a spin of ½” for
A statistical rather than mechanistic condition would fare no better as a uniform truth-condition for generics. On Cohen’s view, for instance, generics express probability statements about members of a kind (Cohen 1996, 1999). For a generic “Ks are F” to be true, the probability that an arbitrary member of K instantiates F must be higher than fifty percent. Sentence (11), for example, says that there is a greater than even chance for a randomly selected raven to be black, which is true. Cohen recognizes, furthermore, that the domain of the generalization expressed by a generic cannot just include all members of the kind, since in that case minority generics would always come out as false. He proposes that the domain of the generic generalization is restricted to those members of the kind who either instantiate the predicated property or a relevant alternative. In some cases, this simply turns out to be the whole kind. Sentence (11), for instance, says of all ravens that have some color that there is a greater than even chance for one of these ravens to be black. In the case of a generic like “Birds lay eggs,” however, the domain is restricted to those birds who have some way of extruding offspring and the generic says that any one of these birds is likely to lay eggs. This generic is true even though only a minority of all birds lay eggs, namely the adult females.

A probabilistic condition like that of Cohen is able to account for the truth of type 2 generics, precisely those generics that are not covered by Nickel’s mechanistic condition. On a probabilistic view, it is true that American barns are red, for instance, due to the probability that an arbitrary one will be red rather than due to the mechanism responsible for this property. Nevertheless, this probabilistic condition cannot constitute a necessary truth-condition for generics either, since it cannot account for the truth of type 1 generics. Sentence (7) is true, for instance, even though it is unlikely for an arbitrary sea turtle to be long-lived. Similarly, (8) is true even though most sharks never attack a bather.

It appears then that both Nickel’s mechanistic condition and Cohen’s probabilistic condition can account for the truth of type 3 generics, but that each fails to account for one of the other types. On my
account, this is because generics do not have uniform truth-conditions but rather have underspecified truth-conditions. The following is a first, incomplete, explication of the truth-conditions of generics:

*Truth-condition 1:* A generic of the form “Ks are F” is true iff there exists at least one generic relation between K and F, where a generic relation can be a suitable statistical or explanatory relation.

On this account, the generalization expressed by a generic sentence existentially quantifies over generic relations and is disjunctive in the sense that there are two different types of these generic relations, each of which would be sufficient for the generic to be true. Hence a generic can be true based on the existence of a statistical relation, based on the existence of an explanatory relation, or based on the existence of both. In this sense, the semantic truth-conditions of generics leave it underspecified which generic relation exists.

In the sections that follow, I will say more about what it is that makes for a generic statistical and a generic explanatory relation, and later also add another condition that all generics must satisfy in order to be true. When completed, these truth-conditions will then allow us to explicate the meaning of generic stereotypes and characterize two efficient rebuttal strategies.

Let me first point out two advantages of a theory according to which the generalization expressed by a generic leaves it underspecified which relation exists. This basic perspective on the meaning of generics allows one to account for both the variety that exists among true generics and for the rebuttal data. Since generics can be true based on two different relations, one should expect that no uniform condition is able to account for the truth of all generics. The type 1 generics provided above are true, for instance, because a generic explanatory relation exists between the kind and property, whereas the type 2 generics are true based on the existence of a generic statistical relation. Type 3 generics, furthermore, are true based on the existence of both relations, even though one would have been sufficient.

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7 Leslie (2007, 2008) has also defended truth-conditions for generics that can be considered ‘underspecified’. Although based broadly on the same approach, the conditions presented in this paper are different from the ones defended by her.

8 Elsewhere (REF. SUPRESSED) I have argued that generics can actually be true based on three different generic relations; a statistical one, a causal-explanatory one, and a functional-explanatory one. Since this functional relation is not applicable to most generic stereotypes like (1-3), I do not discuss this condition here. It would be relevant, however, when aiming to falsify generic stereotypes like “Women are submissive” and “Boys don’t cry” that can also receive a functional interpretation with normative force.
The fact that generics have underspecified truth-conditions also explains why the meaning of a generic stereotype is ‘slippery’ and allows for defensive shifting. When a generic is asserted, a speaker asserts that at least one generic relation exists between a kind and property, which can be a statistical or an explanatory relation. Hence when one objects by providing evidence that only one of these relations does not exist, the speaker can simply accept the truth of the objection yet maintain that the original assertion was true. A speaker who claims that “Muslims are terrorists,” for example, has asserted the following:

S: There exists at least one generic relation between the kind Muslim and the property being a terrorist, where a generic relation can be a suitable statistical or explanatory relation.

If one were to object to this generically formulated stereotype by simply claiming that most Muslims are not terrorists, the original speaker could respond by maintaining that it is nevertheless true that “Muslims are terrorists.” That is, the following response would be semantically sanctioned:

S: Sure, most Muslims have not participated in a terrorist attack. Nevertheless, it is true that [at least one generic relation exists between the kind Muslim and the property being a terrorist.] After all, being a Muslim is what causes some of them to become terrorists, even if most Muslims never go so far.

In this case, the speaker defends the original generic stereotype – explicated between the brackets – by arguing that it is true in the same way that other type 1 generics are true, namely based on a generic causal-explanatory relation between the kind and the property. More generally, someone who asserts a generic stereotype can always shift the defense to whichever of the two generic relations was not objected to by the interlocutor. To state a generic stereotype is to assert that at least one of two relations exist, which is why they are so difficult to rebut.

Note, however, that a theory on which generics have underspecified semantic truth-conditions is not the only way one can aim to account for both the variety among true generics and for the difficulty in rebutting them. Others have argued that generics are semantically ambiguous between different types of generalizations (Cohen 2001; Greenberg 2003), or that the generalization expressed by a generic is context-dependent (Nguyen 2019; Sterken 2015b). On these views, the difficulty in responding to generic stereotypes would be due to the fact that contextual information is required in order to determine which generalization was asserted by a speaker in the first place, rather than due to the underspecified nature of the assertion itself, as I have proposed. When challenged on a generic stereotype, the speaker would then be able to respond by saying that the interlocutor has misunderstood the meaning of their assertion, and then continue to defend the sentence that was stated based on a different available interpretation.
At least for the purposes of this paper, little depends on which of these broader perspectives is correct. Each of them can provide an account of the semantically sanctioned defensive shifting in response to generic stereotypes. More important for devising efficient rebuttal strategies is specifying the conditions based on which generics can be true, irrespective of the semantic mechanism that allows for there to be several of them. I trust that the two rebuttal strategies outlined below from the perspective of an underspecification account are also of interest to those who have defended one of these alternative views.

1.2 Two generic relations

Generics of the form “Ks are F” express that at least one of two relations exists between a kind and a property; namely a generic statistical or explanatory relation. In this section, I will specify the nature of these two relations. Understanding these relations that can ground the truth of a generic sentence is important when aiming to successfully rebut generic stereotypes.

A generic statistical relation exists between a kind K and a property F when a majority of the members of K instantiate F and when this is not just accidental. For this relation to exist, most members of the kind must instantiate the generalized property, even if the kind would have had other members. In this sense, the majority must be counterfactually robust and exist in all maximally similar worlds to ours, that is, in all worlds where everything remains the same except for what is needed to allow for the kind to have other members than the actual ones. This requirement that the majority has to be robust explains why generics have often been understood as expressing lawful generalizations (Krifka et al. 1995). Adding this first relation to our provisional truth-conditions, we can now be more precise in stating that:

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9 Elsewhere, however, I have argued that an underspecification theory is superior to a semantic ambiguity theory and to a contextualist theory (REF. SUPRESSED). For an initial argument against an ambiguity theory, consider that if generic stereotypes were semantically ambiguous, one would expect a conjunction of two opposing generics to also have a non-contradictory reading. But “Muslims are terrorists, though Muslims aren’t terrorists” only has a contradictory reading (for a similar argument, see Sterken 2015b). For an initial argument against a contextualist view, consider that not all generalizations about Muslims are offensive. A generalization like “Some actual Muslims are terrorists” is not offensive. Yet when asked “What is a property that some actual Muslims have?” the response “Muslims are terrorists” is still offensive. This is evidence for the fact that this response does not just express the generalization that “Some actual Muslims are terrorists.” If the generalization expressed by a generic sentence were truly context-dependent, however, this answer-to-question context would seem to select precisely for this existential meaning of the sentence.

10 See Greenberg (2003) for a further development of this idea.
Truth-condition 2: A generic of the form “Ks are F” is true iff there exists at least one generic relation between K and F, where this can be a statistical relation whereby a robust majority of Ks instantiate F, or a suitable explanatory relation.

Generics of type 2 are true based only on the existence of this robust majority relation. Sentence (9) is true, for example, because a robust majority of American barns are red. When this sentence is judged to be true, this judgment is based not only on the belief that most American barns are red but also on the belief that this majority is robust. Even though there exists no generic explanatory relation between this kind and property (as will explained below), it is still the case that the redness of American barns is not just accidental. If things had gone slightly differently so that American farmers would have built other barns than the actual ones, most of them would still have been red. It is people’s belief in this counterfactual robustness of the majority that explains why (9) is judged to be a true generic. The same is true for (10).11

The second way in which a generic can be true then is when a suitable explanatory relation exists between a kind and a property. This generic explanatory relation exists between kind K and property F when at least in some cases where a K instantiates F, (part of) the causal explanation for the instantiation of that property is the defining property of the kind itself. That is, whatever property (or set of properties) determines an individual’s membership of K, this property must causally explain some cases of a K instantiating F.12 Hence whenever a generic “Ks are F” is judged to be true based on this generic explanatory relation, one would also agree to the paraphrase that “some Ks that instantiate F do so by virtue of being a K,” even when one has no specific conception of the defining property of K that is causally responsible for F.13

11 This first majority condition is inspired by Cohen’s probabilistic condition outlined in the first section. Note, however, that there is no restriction to members of the kind who instantiate either the predicated property or an alternative. There is no need to introduce such a restriction to account for minority generics since minority generics are instead true by virtue of the second, explanatory, relation.

12 This causal-explanatory relation can be considered a specification of Nickel’s condition outlined in the first section. It is more specific in the sense that a suitable causal mechanism is one that is initiated by the defining property of the kind itself.

13 For evidence that people judge “by virtue of” paraphrases apt for type 1 generics but less so for type 2 generics, see Prasada & Dillingham (2006). It is not, however, because one agrees to this paraphrase that one also judge a generic true based specifically on a causal-explanatory relation. Elsewhere (REF. SUPRESSED) I have argued that generic can also be true based on a functional-explanatory relation, as in “Bus drivers transport passengers” or “Hearts pump blood.” When a generic is judged true based on a functional-explanatory relation, one would also agree to an ‘in virtue of’ paraphrase.
The type 1 generics mentioned before are true based solely on this generic explanatory relation. In the case of (7), for instance, a generic causal relation exists between the kind *sea turtle* and the property *being long-lived*. When a sea turtle is long-lived, it is by virtue of being a sea turtle. If evolutionary species concepts are correct, the defining property of a species is the distinctive evolutionary history shared by its members. It is this evolutionary history that is causally responsible for the fact that sea turtles tend to have slow metabolisms and slow growth processes, which are the properties that are in turn responsible for their long natural lifespan. Note that the defining property of the kind must not be directly responsible for the instantiation of the generalized property, since in this case it is the slow metabolisms and slow growth processes of turtles that are directly responsible. Instead, the defining property of the kind must be part of the complete causal explanation, which is the case here because the evolutionary history of sea turtles is what causes them to have slow metabolisms and slow growth processes in the first place.\(^{14}\) The defining property of sea turtles is therefore relevant when aiming to causally explain the long lifespan of some sea turtles.

The truth of type 2 generics is not based on the existence of this causal-explanatory relation, only on the existence of the statistical relation. Although most American barns are red, for instance, the defining property of the kind is itself not causally responsible for this color. The defining property of the kind *American barn* is a functional one and hence does not cause anything. It is not accidental of course that so many American barns are red, but the mechanism that is responsible for this color is not the instantiation of the defining property of the kind itself. Instead, it is people’s desire to have a barn that weathers the elements and the availability of paint with ferric oxide that is causally responsible. Generics of type 3, on the other hand, are true based on a generic causal-explanatory relation, as well as based on the statistical one.

There are two interesting facts to note about the generic causal-explanatory relation that can exist between a kind and property. Firstly, when this causal-explanatory relation exists, one can often expect the statistical relation to exist as well. After all, the defining property of a kind is one that all members of the kind instantiate.\(^{15}\) Nevertheless, even when the defining property of a kind is causally responsible for the generalized property, it need not be the case that all members of the kind instantiate this property.

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\(^{14}\) To be part of a complete causal explanation requires that the instantiation of the defining property is a causal difference-maker for the instantiation of the generalized property. It falls outside of the scope of this paper to commit to whether causal difference-making is a probabilistic, counterfactual, or manipulationist notion.

\(^{15}\) Matters are more complex, of course, since what I call ‘defining properties’ can also be sets or clusters of properties.
Many circumstances can interfere with the mechanism initiated by the defining property of a kind, sometimes to the point that only a small minority of members instantiate the generalized property. In some cases, the external environment inhibits the working of the mechanism. It is, for instance, the defining property of sea turtles that causes some of them to be so long-lived, yet most are less fortunate and are killed before they get to experience the effect of their slow metabolisms and growth processes. In other cases, the background conditions for the mechanism to operate are only occasionally present, as in (8). When a shark attacks a bather, it is by virtue of being a shark. Few of them, however, are ever in the right conditions to do so. In still other cases, a defect inhibits the mechanism from operating. Although (2) is true based both on the statistical and the explanatory relation, not all ravens are black. By virtue of being ravens, most of them have a set of genes that produce a black color. Yet a defect in just one of these genes can result in a white albino raven. Still, the generic is true based on both generic relations.

A second interesting point to note about the generic causal-explanatory relation, is that often when this relation is instantiated, one can also expect the generalized property to be distinctive of the kind. After all, the defining property of a kind is a distinctive one. Nevertheless, even when the defining property of a kind is causally responsible for the generalized property, it is not necessarily so that this generalized property is also distinctive of the kind. There are again many possible reasons for this. For one, different causes can have similar effects. Ravens have wings, for instance, but so do bats, and yet in both cases this is by virtue of the defining property of the kind. A second reason is that for many kinds the ‘defining property’ is actually a complex property or a combination of properties. In that case, the part of the defining property of the kind that is causally responsible for the generalized property might be shared with other kinds. “Ravens have wings” is true, for example, but birds of other species have wings just as well. In fact, the more general “Birds have wings” is also true and perhaps more apt as an explanatory generic.

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16 If one disagrees with this generic, it is presumably because one believes that it is not the nature of sharks that causes them to attack bathers but rather the fact that they sometimes mistake bathers for their natural prey. The truth-conditions for generics presented here explain why this would cause one to believe that the generic is false.

17 The distinctiveness of a property is also not sufficient for a generic to be true on the current account. Elsewhere, Cohen (1996) argued that a generic can be true based on the fact that the predicated property is relatively more likely to be instantiated by members of the kind than by members of an alternative kind. Leslie (2007) has already shown, convincingly to my mind, that this relative condition is too weak and would over-generate true generics, like “Humans are blind” or “Humans are one-legged.” The causal condition presented here is stricter than Cohen’s relative condition and hence would rule out examples like these, yet it does capture the intuition that a property being distinctive of a kind often coincides with the truth of a generic.
After all, generality is an explanatory virtue, though not a requirement (Strevens 2008). As a sub-kind of birds, ravens share part of their defining property with other birds. It is precisely this shared part of their complex defining property that is responsible for their wings, and hence having wings is not distinctive of their species. In this same way “Copper is a good conductor of heat” is true based on a generic explanatory relation, though the more general “Metals are excellent conductors of heat” is also true.

Now that we understand the two relations based on which a generic can be true, we also understand their truth-conditions. The underspecified truth-conditions of generics can be stated (still incompletely) as follows:

*Truth-condition 3:* A generic of the form “Ks are F” is true iff there exists at least one generic relation between K and F, where this can be a statistical relation whereby a robust majority of Ks instantiates F, or an explanatory relation whereby the defining property of K is causally responsible for some K’s instantiation of F.

**1.3 Denying both generic relations**

Having explicated the underspecified truth-conditions of generics, we can now turn back to generically formulated stereotypes and be more precise about their meaning. When (1) is asserted, the speaker has claimed that at least one of the following two relations exists; a robust majority of Mexican immigrants are rapists or at least in some cases where a Mexican immigrant is a rapist, it is the defining property of their kind that is causally responsible. Similarly, when someone asserts (2), the speaker has claimed that a robust majority of Muslims are terrorists or that some Muslims are terrorists by virtue of being Muslims.

Given this underspecified meaning, responding to a generic stereotype by denying the existence of just one of the generic relations does not constitute a successful rebuttal. A more adequate response would be to immediately deny the existence of both generic relations. Here is how that might go:

S: Muslims are terrorists.

I: No, it’s not true that Muslims are terrorists. It is not the case that a robust majority of Muslims are terrorists. And though some of them are, this is not by virtue of their being a Muslim. The nature of what it is to be a Muslim does not cause anyone to become a terrorist.

This response constitutes a successful rebuttal of the speaker’s stereotype since it would be inconsistent of the speaker to accept the premises of the objection yet continue to maintain that the original assertion was true. The objection would be even more convincing, however, if the interlocutor
had also provided evidence that neither of the two generic relations exists. To deny the existence of the generic majority relation, one can either provide evidence that only a minority of the kind instantiates the predicated property, or that the majority that does exist is only accidental and not robust. To deny the existence of the generic explanatory relation, one must argue that the defining property of the kind is not causally responsible for the instantiation of the generalized property. A first way of doing so is to provide evidence of alternative causal factors that suffice to explain each of the cases where a member of the kind instantiates the generalized property. A second way of doing so is to argue that if the defining property of the kind had been part of the causal explanation, one would expect the generalized property to be more widely spread among members of the kind or more distinctive of the kind. In that case, one ought to provide evidence that any of the reasons listed above that could explain why a property caused by the defining property of a kind is not very widespread or very distinctive, does not apply. Hence a stronger rebuttal of (2) would have been something like this:

S: Muslims are terrorists.
I: No, that’s not true. Of course very few Muslims ever actually commit terrorist attacks, but PEW research also shows that there is very little support among Muslims for terrorist organizations.\(^{18}\) So even in those cases where a Muslim does commit a terrorist attack, it is not by virtue of being a Muslim. After all, if the religious beliefs that define what it is to be a Muslim would be causally responsible for their turn to terrorism, one would expect much more Muslims to at least agree with such actions.

Of course, the original speaker may disagree with this argument and continue the conversation by objecting to it. The point of this example, however, is that the speaker cannot just accept the objection and continue to uphold that the original stereotype was true. Based on this successful rebuttal, the original speaker is forced to address the arguments themselves, rather than be able to shift to defending the original statement in a way unaddressed by the objection. A similar objection to (1), aiming to deny both the generic relations, could go like this:

S: Mexican immigrants are rapists.
I: No, that’s not true. There is nothing about the nature of Mexican immigrants that leads some of them to become rapists. If this had been the case, one would expect Mexican immigrants to be more likely to be rapists than members of the native-born population, but that is not the case. As

\(^{18}\) See for example Poushter (2015) and Wike (2015).
Arellano of Politico magazine has put it: ‘whites accounted for 71 percent of all sexual assaults documented (above their total percentage of 63 percent of the U.S. population), while Latinos accounted for 9 percent, far below their total percentage of 17 percent.’\(^{19}\) These same data also show that obviously, most Mexican immigrants are peaceful citizens and never assault anyone.

The conjunctive strategy used here by immediately denying both ways in which the stereotype can be true, results in a successful rebuttal. The original speaker cannot rationally brush aside the objection and continue to uphold the truth of the stereotype. There is simply no option to defend the stereotype by shifting to an alternative condition since the two generic relations that would be able to ground the truth of the stereotype have been denied. While this first strategy can be successful in falsifying generic stereotypes, it also requires an elaborate response, especially if one aims to submit even more conclusive evidence that no generic explanatory relation exists. There is also another strategy, however, that results in a successful rebuttal of a generic stereotype and that often requires a less elaborate response. This strategy is the subject of the second part of the paper.

2. The defeating condition strategy

2.1 An additional condition

As they stand, the incomplete truth-conditions for generics provided in truth-condition 3 would wrongly predict that the following sentences are true:

13. Bees are sexually sterile.
15. Humans are right-handed.
16. Sea turtles are short-lived.

In each of these sentences, a robust majority of the kind instantiates the generalized property. Still, these sentences are false. Other philosophers have already proposed several truth-conditional constraints on generics that ought to explain why sentences like (13-16) fail to be true. Cohen (1996), for instance, proposes that generics can only be true if they also satisfy a homogeneity constraint. There cannot be any salient partitioning of the kind such that for some of the partitions it is not the case that an arbitrary member has a higher than even chance to instantiate the generalized property. Sentence (13), for example, would be false due to the salience of a partitioning of bees into workers, drones, and queens.

Both drones and queens have a low chance of being sexually sterile and hence the generic is predicted to be false. In the case of (14), perhaps the salience of different nationalities would explain why it strikes us as false.

This homogeneity constraint fails, however, to also explain why (15) and (16) are false. There is no salient partitioning of humans or sea turtles so that in one of these partitions the generalized property is in the minority. Of course one can always partition a kind into those that instantiate the generalized property and those that do not, but this would make any generic with some exceptions false. Furthermore, as Leslie (2007) has already objected, if the salience of gender as a partitioning explains why (13) is false, then generics like “Bees reproduce” would not be true either.

In response, Leslie (2007, 2008) has offered an alternative constraint. She proposes that a generic is false whenever the exceptions to the generalization instantiate an equally positive alternative to the one that is being generalized. Even though generics allow for exceptions, this is only the case if the counter-instances simply fail to have the generalized property rather than have an equally salient alternative. Sentence (15) would be false, for example, due to the fact that humans who are not right-handed instantiate an equally positive alternative property, namely being left-handed.

Yet this constraint cannot be entirely correct either. After all, it is true that “American barns are red” even though some barns are white, an equally positive alternative. Furthermore, if “Sea turtles are short-lived” were false because the exceptions instantiate an equally positive alternative, then “Sea turtles are long-lived” ought to strike us as false too.

Instead, the constraint that I argue explains the falsehood of sentences like (13-16) is the following: For a generic of the forms “$K$s are $F$” to be true, it cannot be the case that the defining property of $K$ is causally responsible for some $K$’s instantiation of an incompatible alternative determinate of the same determinable as $F$. Or in other words, if some members of $K$ instantiate an incompatible alternative to $F$, the generic “$K$s are $F$” can only be true when this alternative property is not caused by the defining property of $K$.

Take sentence (15) as a first example. The alternative to being right-handed is being left-handed since these are two alternative determinates of the same determinable; handedness. They are also incompatible alternatives since being left-handed and being-left handed exclude each other. Nevertheless, both the left-handedness of some people and the right-handedness of other people are caused by the defining property of $K$.

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20 Thus, this additional constraint does not cause “Frenchmen eat horsemeat” to be false. This generic is true based on a generic causal-explanatory relation. And although being French might also cause French people to eat specific other things, these do not constitute incompatible alternatives.
property of the kind. The nature of being human causes some people to be right-handed and some people to be left-handed. As a result, (15) strikes us as false. It is not true that “Humans are right-handed” even though most humans are, because the left-handedness of some people is also caused by their being human.  

No generic can be true when an incompatible alternative to the generalized property is caused by the defining property of the kind.

This same constraint explains why the other sentences in (13-16) are false. 22 The defining property of bees causes many bees to be sexually sterile, but it also causes other bees to be fertile. Hence (13) is false. Sentence (14) is false, furthermore, because the defining property of *people in East Asia* causes some of them to speak Chinese, but causes other people to speak a different language. 23 Finally, (16) is false because although most sea turtles are short-lived, it is the alternative to this property that is explained by the defining property of the kind.

The additional constraint proposed here is more specific than that of Leslie (2007, 2008). Recall that on Leslie’s account, a generic can only be true if the exceptions to the generalization simply lack the generalized property, rather than instantiate an equally positive alternative. Instead, I have proposed that what really matters is whether any of the alternatives are causally explained by the defining property of the kind. This proposal also accounts for the correct intuition behind Leslie’s view. Lacking a property is not something that can be causally explained. Not instantiating a property is a non-event and as such cannot be causally explained (Strevens 2008). Only an actual instantiation of a property can be causally explained, and hence can result in a generic being false based on the additional constraint. 24

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21 As has been hypothesized, it is because humans are a competitive species that being left-handed confers some evolutionary fitness. Because humans are also cooperative, however, it also pays for the majority to be right-handed.

22 It also explains why other generic sentences like “Books are paperbacks” or “Mammals are placental mammals” are infelicitous. To determine whether the constraint outlined in this section is satisfied for a generic of the form “*Ks are F*,” one must determine whether the defining property of *K* is causally responsible for *F*. When *F* is a sub-kind of *K*, however, this requires one to determine whether the kind-identifying property of *K* is causally responsible for a specification of that very property. This cannot be determined and hence generics that predicate sub-kinds are semantically uninterpretable. For what I believe is a similar view, see Nickel (2018).

23 Though speaking different languages is in principle not incompatible, it is de facto often incompatible. I believe this belief in the de facto exclusiveness of languages explains why (14) is judged to be false.

24 Hence generics like “Lions give birth to live young” are true based on a generic causal relation and satisfy the additional constraint. Even though male lions do not give birth at all, simply *not* giving birth to live young is not a property that can be causally explained.
The constraint proposed here also accounts for the intuition behind Cohen’s homogeneity condition. For Cohen, a generic can only be true if the kind is homogenous with respect to the high probability of the generalized property being instantiated. On the current proposal, it is not the lack of homogeneity itself that results in a false generic. A lack of homogeneity can, however, be evidence for the fact that the defining property of the kind is not just causally involved in the production of the generalized property, but also in the production of alternative properties. Hence (13) is not just false because bees are not homogenous with respect to being sexually sterile. Instead, it is false because the shared nature of bees is part of the causal explanation for the fact that worker bees are sterile but is also part of the causal explanation for the fact that drones and queens are fertile.

So when a generic sentence is true, it is not only based on the underspecified truth-conditions provided above. The additional constraint must also be satisfied. With this constraint explained, we can now state the truth-conditions of generics completely:

Truth-condition 4: A generic of the form “Ks are F” is true iff:
- there exists at least one generic relation between K and F, where this can be a statistical relation whereby a robust majority of Ks instantiates F, or an explanatory relation whereby the defining property of K is causally responsible for some K’s instantiation of F,
- and the defining property of K is not causally responsible for some K’s instantiation of an incompatible alternative to F.

2.2 Denying the defeating condition

The additional constraint described in the previous section can be considered a ‘defeating condition’ because it defeats the truth of a generic sentence irrespective of whether the first underspecified condition is satisfied. Hence a second strategy in rebutting generic stereotypes is to focus on this defeating condition and deny that it is satisfied. Consider stereotype (2) again, repeated here:

2. Muslims are terrorists.

Given the conditions provided in truth-condition 4, we can now be more precise about what it is someone asserts by stating (2). The speaker has claimed two things. Firstly, that at least one of the following relations holds; most Muslims are terrorists or in some cases where a Muslim is a terrorist, it is by virtue of being a Muslim. Secondly, that being a Muslim is not causally responsible for the fact that some Muslims instantiate an incompatible alternative to being a terrorist. Hence in addition to denying the first condition, the following would also constitute a successful rebuttal:
S: Muslims are terrorists.
I: That’s not true. Islam is a religion of peace and hence being a Muslim causes people to be peace-loving, not terrorists.²⁵

It would be inconsistent for the original speaker to accept that being a Muslim causes people to be peace-loving citizens, while still maintaining that the original stereotype was true. The interlocutor has made a claim about the nature of the defining property of being a Muslim and has claimed that this kind is causally responsible for an alternative to being a terrorist. The interlocutor has thereby argued that the generic stereotype is false in the same way that “Sea turtles are short-lived” is false; it is only an alternative to the generalized property that is causally explained by the defining property of the kind.

A different response based on the same defeating condition would be to argue that the generic is false in the same way that “Bees are sterile” is false. In that case, one would argue that both the generalized property and an alternative one are explained by the defining property of the kind, since this property has different effects in different circumstances. Here is an example:

S: Muslims are terrorists.
I: That’s not true. The religious beliefs that define what it is to be a Muslim are perhaps part of the explanation for the fact that some Muslims turn to terrorism, but are equally part of the explanation for the fact that so many Muslims live a peaceful life. Whether these beliefs result in someone being a terrorist or a peace-loving citizen depends on personal, social, and political conditions.

This response also provides a successful rebuttal to the original speaker and avoids any defensive shifting. The speaker must address the objection since if it is indeed the case that the defining property of being a Muslim is causally responsible for the fact that many of them are peace-loving citizens, then “Muslims are terrorists” cannot but be false. This same approach of denying the defeating condition can be taken in response to a generic like (1). Consider a final example:

S: Mexican immigrants are rapists.
I: No, that’s not true. In fact, being a Mexican immigrant often causes people to abide by the law, which is why the data show that Mexican immigrants are relatively less likely to commit violent crimes compared to the native population. As Marc Rosenblum from the Migration Policy Institute said: ‘Immigrants in general — unauthorized immigrants in particular — are a self-selected group

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²⁵ A response like this does accept, however, that the kind has a causal defining property. In some cases, like stereotypes about race or gender, one may want to avoid doing so and hence only the conjunctive strategy would apply.
who generally come to the U.S. to work. And once they’re here, most of them want to keep their nose down and do their business.\textsuperscript{26}

\textbf{Conclusion}

Generic stereotypes like “Muslims are terrorists” and “Mexican immigrants are rapists” are offensive and hurtful. Though explicitly quantified stereotypes are also offensive, it is no coincidence that stereotypes are often formulated as generics. Due to their underspecified truth-conditions, the meaning of generic stereotypes is ‘slippery’ and allows for defensive shifting when one aims to rebut the stereotype. Offensive yet hard to rebut make generic stereotypes particularly pernicious.

In this paper, I have first considered a broader selection of generics in order to explicate their truth-conditions. Based on these truth-conditions, two different strategies were proposed that one can use in responding to generic stereotypes. A first strategy is to argue that neither of the two generic relations exists between the kind and property. A second strategy is to deny that an additional necessary condition is satisfied, namely by arguing that the nature of the kind is causally responsible for an incompatible alternative. The hope is that understanding both these strategies empowers readers to confidently respond to utterances of generic stereotypes and inspires fact-checkers not to let public statements of generic stereotypes go unchallenged.

\textbf{References}


\textsuperscript{26} As quoted in Lee (2015). For data on violent crimes and a comparison of immigrants versus the native-born population, see for example Spenkuch (2013).


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