"Generics and Characteristic-based Evaluation"

This paper concerns the relationship between a certain kind of evaluative or normative inference, and generic sentences such as *Dogs have four legs*, *Mosquitoes carry the West Nile virus*, and *Stoves are hot*. Such generics play an essential role in a very basic kind of evaluative or normative reasoning. This role cannot be played by generics if they are construed as generalizations, in the way that many theories of generics propose to do. Therefore, I argue, generics cannot be understood as generalizations; instead, they are *qualitative characterizations* of kinds. As such they are not susceptible to the currently-orthodox quantificational semantic analysis involving the unexpressed operator *Gen*.[1] On the qualitative characterization view, a generic is true if and only if it predicates something of a kind that is truly characteristic of that kind. The view that generics are qualitative characterizations of kinds suggests a helpful way of thinking about some of the puzzling questions posed by generics' odd logical properties.

Following Gregory Carlson (1977a; 1977b), the orthodox semantic analysis of generics posits an unexpressed operator, *Gen*, which is presumed to be in place when no other overt quantifiers are present, and which instructs us to interpret a given sentence *X* as *Generally, typically, or usually X*. Thus, the generic sentence *Dogs have four legs* means *Usually, typically, or generally, if X is a dog, then X has four legs.* What follows is not an attempt to mount a comprehensive argument against the view that generics can be understood in terms of *Gen*. My aim is rather to present a compelling alternative – the qualitative characterization account – and to demonstrate some of its explanatory strengths, especially with respect to some familiar difficult cases from the literature.

The sentences mentioned above – *Dogs have four legs*, *Mosquitoes carry the West Nile virus*; *Stoves are hot* – are often-discussed examples of generic sentences. They all have a bare plural noun phrase (NP) in the subject position, where the bare plural NP refers to a kind. The view that I am developing here applies to generic sentences with kind-referring subjects; thus *The dog is a four-legged animal* and *Dogs have four legs* are both examples of the kind of sentence I have in mind when I speak of generics in what follows. I will sometimes refer to these sentences as characterizations, or generic characterizations.[2]

I. Characteristic-based evaluation

To make the case that generics are qualitative characterizations of kinds, we first need to understand the role of generics in characteristic-based evaluative reasoning. The idea that species-facts provide *norms* for individual members of the species, and thus ground evaluative judgments about those individuals, is familiar from recent work in neo-Aristotelian ethical naturalism. For

[1] Sarah Jane Leslie has argued for a psychological account of generics (2008), but insofar as her view still relies on a variable binding operator that quantifies over individuals, it is in the relevant respect a variation of Carlson's view. In spite of the fact that he introduced *Gen* to account for generics, Carlson himself sees generic characterizations as characterizations *of kinds*. See Carlson (1989) and Krifka et. al. (1995).

[2] For a recent argument in support of the kind of account described here as applied to bare plurals, see Michael Liebesman (2011). For a kind-semantics of singular definite generics see Paul Nichols (2014).

example, in *Natural Goodness* (2001) Philippa Foot relies on claims about human nature to ground normative ethical conclusions about how we ought to live and who we ought to be. Specifically, she argues that facts about what human beings *need* significantly restrict the kind of life that it can be good for a human being to lead, and the kind of person that it can be good for her to be. In developing her view, she relies on Michael Thompson's account of what he calls 'Aristotelian categoricals', which are themselves a type of generic (1995; 2008).[3] And in "Human Good and Human Function" (2006) Gavin Lawrence argues that knowledge of the form of life of a given species allows us to understand certain features of individual members of the species as forms of natural defect. Thus for example, if it is true that swallows migrate, and if we come upon a swallow that does not migrate or is not migrating, then there is something wrong with the sparrow, whereas there is no natural defect present if, say, a bullfrog fails to head south in the winter (57-8). We will see in a moment that there are difficulties with the neo-Aristotelian conception of characteristic-based evaluation; nonetheless this framework serves as a fruitful starting point for thinking about generics and characterizations.

The connection between generics and evaluative and normative judgments has also received attention recently in work connecting generics with issues in social philosophy. Sally Haslanger, for example, has argued that generics play a crucial role in articulating and sustaining problematic ideologies, where 'ideology' is "the background cognitive and affective frame that gives actions and reactions meaning within a social system and contributes to its survival" (2011, 181). For example, consider the racist statement, "Blacks are violent." Haslanger argues that, whatever the semantics of generics, generic sentences often pragmatically imply that something is *essentially* true of a relevant kind. Thus a statement like "Blacks are violent" introduces "implicitly into the common ground a proposition about a generic essence, about how … blacks *are* by nature or intrinsically." (193) The implicature of this statement is that "all members of the kind [blacks] are disposed, by nature, to have the property [violence]." (199) Thus generics are instrumental in getting into the 'background cognitive and affective frame' of a given society perniciously false beliefs such as that blacks are by nature or essentially violent. And in a related vein, in "Carving up the Social World with Generics" (forthcoming), Sarah-Jane Leslie claims that generics are instrumental in teaching young children the sort of essentializing social views epitomized by gender and racial stereotypes, and suggests that for this reason parents should try to avoid using generics to characterize social reality to their young children.[4]

All of these philosophers are tracking an important connection between generics and evaluation. But their views stand in need of a more accurate and more complete conception of the evaluative logic of generics. To see why, we can begin by noting the familiar point that generics

[3] Thompson rejects the suggestion that his 'Aristotelian Categoricals' are generics in "The Representation of Life" (1995). [Further discussion removed for blind review.]

[4] Leslie suggests that "it would seem to be potentially very beneficial to cease to use generic language, particularly in conversation with children" (226). As will be evident, on the account offered here this suggestion is not intelligible, for ceasing to use generic characterizations would amount to ceasing to teach children about kinds of things in the world; indeed, it would be to cease to teach them basic concepts. Justice in our beliefs and social practices requires getting the world right, not ceasing to attribute characteristics to kinds of things in that world. Leslie's view on this point is not shared by Haslanger, according to the latter's remarks in a public discussion of her work [details removed for blind review]. See also Halanger (2014).

admit of exceptions. For example, from the fact that dogs have four legs, and the fact that Jack is a dog, it does not follow that Jack will have four legs. He might be an amputee. Consider the following inference:

1. Dogs have four legs.
2. Jack is a dog.
3. Jack has four legs.

1-3 is not a valid inference; 3 is not entailed by 1 and 2, as it would be if 1 were a universal quantification (e.g. *All dogs have four legs*.). But suppose Jack does in fact have only three legs:

4. Jack is an amputee.

Still, given 4, the generic *Dogs have four legs* is true. Thus, generics admit of exceptions without being made false by those exceptions.[5]

Now, when confronted with the fact that 3 doesn't follow from 1 and 2, and the fact that 4 doesn't falsify 1, it's natural to focus on the question, why not? (*Gen* provides an answer to this question: 4 doesn't make 1 false because 1 doesn't say that all dogs have four legs, it says only that dogs generally (usually, typically) have four legs.) But rather than asking why 4 doesn't make 1 false, we will learn more about the logical properties of generics by focusing instead on a different question: namely, what *does* follow from 1 and 2? That is, what *are* we permitted to conclude, if we know that dogs have four legs and that Jack is a dog? What does follow is that Jack *ought* to have four legs:

1. Dogs have four legs.
2. Jack is a dog.
3'. Jack ought, *qua* dog, to have four legs.

This inference claims to derive an 'ought' from an 'is'; a possibility that David Hume derided and Elizabeth Anscombe defended (1958). Hume's objection was, in essence, that philosophers move without comment and without justification from "is" claims to "ought" claims. Anscombe's retort was, in effect, that people do this all the time and there's nothing remarkable about it. What is interesting about the characterization-based evaluative inference above is that it provides, a clear, intuitively plausible warrant from moving from 'is' to 'ought'. Here, a fact about what is characteristic of a kind of thing is being invoked as a norm or standard against which to evaluate a particular instance of that kind. The evaluative dimension is that of *instantiation*; the norm and its relevance to the evaluated individual are obvious and explicit.

But what, exactly, does 3' claim? 3' is liable to be misunderstood, so to speak, in either of two directions. One way of misconstruing this conclusion (*Jack ought to have four legs*) would be to underestimate or deny altogether its normative force. *Gen* is conducive to this way of thinking. If 1 says that dogs generally, typically, or usually have four legs, then we can expect Jack to have four legs because most dogs do; it's the way he is most likely to be. Here, the 'ought' in 3' is given a predictive interpretation; it tells us what we are entitled to expect given 1 and 2.

[5] See Krifka *et. al*. (1995).

To be sure, there are many times when 'ought' *is* used to make a prediction, as in 'You ought to be up and about in a few days' said to someone with the flu. Here, the implicit norm is something like an average or mode: the person ought to be up and about in a few days in light of the amount of time it usually takes (or takes, on average) for this virus to run its course in an otherwise healthy person. But not all of the oughts implied by generic characterizations are predictive in this way, because not all norms expressed by generic characterizations express averages or likelihoods. *Birds lay eggs*, *Humans have 32 teeth*, and *Mosquitoes carry West Nile virus* are just a few examples of generic characterizations that cannot be interpreted in these terms, because none of them pick out characteristics that are true of the majority of instances of the kind referred to by the subject NP. We will return to this question in more detail below, but what we will see is that the predictive sense of 'ought' – just like the 'generally, usually, or typically' of *Gen* – doesn't adequately capture the diverse linguistic and logical phenomena of characteristic-based evaluative reasoning.

First, however, let us consider a mistake in the other direction. The normative force of a conclusion like 3' may easily be overestimated; it is tempting to interpret the 'ought' as establishing something more than it actually does. Neo-Aristotelian ethical naturalism tends towards this sort of error, because it tends to assume that the 'oughts' that follow from all sorts of characterizations of kinds pertain specifically and immediately to *flourishing*, or wellbeing. (In the human case, the thought is that natural norms would then lead by a very short route, via facts about what it takes to flourish, to practical and ethical requirements.) The example of Jack the three-legged dog illustrates both why this move seems promising, and why it is too quick. Suppose we reason as follows:

1. Dogs have four legs.
2. Jack is a dog.

3'. Jack ought, *qua* dog, to have four legs.

4. Jack is an amputee.

Now, to any human being reasonably acquainted with what dogs are, the idea of a dog with fewer than four legs can't help but carry with it implicit connotations of injury, poor health, pain, (loss of) physical wellbeing, and so forth. And this makes it natural to want to move immediately to certain specific kinds of further evaluative conclusions – such as that Jack is failing to flourish, or that Jack is a defective specimen of a dog.

But in fact, 3' says nothing about flourishing, and what it does imply instead is something very narrowly circumscribed. All it really says is that Jack ought to have four legs *in order to have the number of legs that is anatomically characteristic of his kind*. (This is what the phrase '*qua* dog' gestures at.) 3' does not say that Jack ought to have four legs in order to be healthy, or in order to flourish, or even in order to be a good dog. These further claims may all be true of Jack, but they are not entailed by 1 and 2, and 3' makes no claims to their effect. (As it happens, Jack may be flourishing because he may have doting owners who have supplied him with a state of the art bionic leg, or because he can do everything he wants and needs to do with only three legs.) It is not simply in learning that Jack is not as he ought to be vis-à-vis some characteristic of his kind, but rather in *looking for the explanation* of Jack's abnormal condition that we may discover such things as a failure to flourish (or not).

Gavin Lawrence's notion of a *call for explanation*[6] is the crucial insight from the neo-Aristotelian literature that helps us to understand the validity and scope of characterization-based evaluative inferences. We can tell that something like 3' is indeed implied by 1 and 2 because *if* Jack the dog does not have four legs, then given that he is a dog and given that dogs have four legs, his failure to instantiate four-leggedness requires an explanation. That is, an explanation of some sort is called for if Jack *the dog* is missing one, some, or all of his legs, whereas no explanation is called for if Jack the snake or Jack the truck is legless, or if Jack the sparrow has only two. Legless snakes and trucks and two-legged sparrows are not *missing* legs at all; there's no norm there being violated. In this contrast between things that do and do not call for an explanation, we can begin to see that generics state norms; and this explains why the ought-claim of 3' is a justified conclusion.

In the case of Jack, our ability to interpret the 'ought' of 3' as narrowly as we should may actually be hindered by our sheer familiarity with the likely explanations for three-leggedness in dogs, and with the corresponding (likely negative) impacts on their flourishing. That is, because we know from experience what the likely explanation of a dog's three-leggedness will be (namely, injury), we pass right over the question – the call for an explanation – without realizing that it is only the *question* that is licensed by 1-4, and not some particular answer to it. But there are countless true generics. And every generic will have narrow, highly specific evaluative implications of its own, just as *Dogs have four legs* has normative implications for the dog Jack. Yet very few generics – even ones having to do with the form of life of living things – have anything to do with flourishing or well-being, let alone with right action. And in such cases it is easier to see how tightly circumscribed generics' evaluative implications really are. Consider the following examples:

1C. Cars have four wheels.
2C. Anna's Prius is a car.
3C. Anna's Prius ought to have four wheels (*qua* car, or in order to have the number of wheels that is characteristic of cars).

1S. Snow is white.
2S. This stuff is snow.
3S. This stuff ought to be white (qua snow, or in order to be the color that is characteristic of snow).

1T. Human beings have 32 teeth.
2T. John is a human being.
3T. John ought to have 32 teeth (*qua* human being, or in order to have the number of teeth that is characteristic of human beings).

The all-important step of *looking for an explanation* when an individual is not as it ought to be is easier to notice in these cases, because they are removed from the contexts of wellbeing. If Anna's Prius doesn't have four wheels, certainly an explanation is called for, but we cannot say that the Prius is failing to flourish (or that it has committed a moral transgression, or that it lacks character,

[6] Citation and further discussion removed for purposes of blind review.

or that it is irrational). Nor can we be sure it is defective. Perhaps it was in an accident, but perhaps it is a new fuel-efficient model with eight thin wheels instead of four thicker ones. The same goes for the whiteness of snow. Snow that is not white might be gray from pollution, or it might be so pure and so very deeply drifted that it looks blue. And, as Foot herself points out, there are many things that are truly characteristic of a species of living thing, which in no way affect individuals members of the species' well-being by their presence or absence (2001, 34-48). Indeed, in the case of number of teeth, many of us are closer to flourishing, more rational, more beautiful, perhaps even nicer people if we are missing a few teeth, as when bravely having a tooth extracted prevents pain and resolves infection, or prevents a crowding problem. Still, if we have other than 32 teeth we are not as humans ought to be specifically and solely in relation to the anatomical norm given by what is characteristic of our species.

We have now identified two useful tools for thinking about the evaluative implications of generic characterizations of kinds. The first of these is Lawrence's notion that an explanation is called for when an individual is not as it ought to be vis-à-vis the characteristics of its kind. The second is the disambiguating phrase *in order to*, which helps us to articulate the precise sense in which an individual 'ought' to be a certain way, by forcing us to explicitly articulate the relevant kind-trait-*cum*-norm. Applying these tools to constructing and interpreting simple evaluative inferences from generic characterizations, we have seen that the oughts implied by characteristic-based evaluative inferences are not characteristically moral, practical, or rational oughts, or oughts of flourishing. In the same way, we are now in a position to see why the 'oughts' of characterization-based evaluations also cannot be understood predictively.

As we saw above, *Gen* is conducive to what I called a *predictive* construal of 'ought' in a conclusion like

3'. Jack ought, *qua* dog, to have four legs.

This is because *Gen* tells us to interpret 1 (*Dogs have four legs*) as saying that Dogs generally usually, or typically have four legs. Here, 1 makes a claim about how things are for the most part. From that fact, together with the fact that Jack is a dog, one can conclude that Jack is likely to have four legs (or, that he is most likely, or likelier than not, to have four). But the trouble with this way of understanding the inference 1-3' is that it can't accommodate the fact that an explanation is called for if Jack does not in fact have four legs, because it is precisely *not* an evaluative inference. If the number of legs a given dog has is nothing more than a matter of statistical likelihood, then all we learn when we learn that Jack is a dog is that we should expect him to have four legs with a certain degree of probability. But we learn more than that in this case; we learn that a three-legged Jack would be deviating from a norm in some way yet to be explained.

In general, if generic characterizations like *Snow is white* or *Dogs have four legs* are construed as mere generalizations or statistical regularities, then they have no normative significance one way or another for individuals. And that leaves us with no way to explain (or justify) certain important and very basic kinds of knowledge that we have about our world, such as that lurid orange snow is either contaminated with something or part of a sno-cone, or that legless dogs are abnormal whereas legless snakes are not. In contrast, if generics characterizations state facts that are also norms then we should expect them to have precisely the supposedly-peculiar logical properties that they have: norms are (characteristically) standards that can be

deviated from. We should expect them to admit of exceptions; it is deeply, indeed definitionally characteristic of norms to do so.

To recapitulate what has been claimed so far: generic characterizations of kinds state norms for individual instances of that kind. The evaluative ought-claims that they support are exactly as diverse in their scope and force as the characterizing claims that figure in them, and it is the content of the characterization itself that determines the scope and force of ensuing evaluative conclusions. Characteristics themselves, moreover, are in an important sense value-neutral. That is, it is not in virtue of having goodness or badness 'built into' them, or attributed to them, that characteristics of kinds serve as norms for individuals; it is simply in virtue of being characteristics of the relevant kind that they do so. The phenomenon we have identified is a standard-relative sort of normativity. Nonetheless, characteristics of kinds serve as norms or standards of evaluations for particular members of those kinds, as indicated by the fact that failure to instantiate a characteristic of one's kind calls for an explanation.

II. Semantics of qualitative characterizations

Let us now apply the foregoing considerations concerning generics' role in characteristic-based evaluative reasoning, to some questions of semantics. According to the qualitative account, the truth conditions of generic characterizations can be stated as follows:

> *A generic characterization of a kind is true if and only if it predicates something of a kind that is truly characteristic of that kind.*

It is important that characteristics here are characteristically contingent, empirical phenomena, just like the kinds whose traits they are. Characteristics are not necessarily – or normally –*essences* in any strong metaphysical sense that brings with it connotations of necessity or immutability.[7] For example, it is presently true of dogs (the kind) that they have four legs, but dogs might evolve to walk on their hind legs. In that case, if we are still around and still calling them *dogs*¸ it will be false that dogs have four legs, true that dogs have two legs, and still the case that Jack the dog's three-leggedness would call for an explanation (though it would be in relation to a different characterization-cum-norm).

It is also important to note that generic characterizations do not always pick out 'essential', in the sense of *defining*, qualities of kinds; even if these qualities are suitably empirically construed. Different characteristics may be more or less central or peripheral to what it is to be a given kind of thing. For example, the hotness of stoves is one of their most central characteristics – stoves are *essentially* hot, one is tempted to say, getting hot is their *raison d'etre*. Take away the hotness, and you've got a different kind of thing entirely; stove-ness and hot-ness stand and fall together, etc. At the same time, it is characteristic of deer ticks to carry Lyme's disease, and *Deer ticks carry Lyme's disease* is true in virtue of that fact. And yet, if Lyme's is eradicated deer ticks

[7] There are exceptions to this claim, such as analytically true qualitative characterizations like *Triangles have three sides*, and given the diversity of characteristics and kinds that generics can be used to talk about, this should be expected. Some characterizations, we might say, are definitional. But this does not affect the point that generically, or characteristically, the kind of characteristics in question are not essences. Thanks to [name removed for blind review] for raising this point.

will still be deer ticks, even though the kind no longer has a characteristic that it used to have. Indeed being a Lyme's carrier has never been a central part of what it is to be a deer tick, even though it is one of the characteristics of the species that it is a vector of this particular disease.

In general, if we construe generic characterizations as qualitative characterizations of kinds, then the frequency with which a trait occurs in instances of a kind poses no particular problem for evaluating the truth of the generic sentence itself. This means that the qualitative account can explain some of the more difficult cases of intuitively true generics; what Sarah-Jane Leslie has called 'troublesome generics' (2008). In particular, it allows us to make sense of some generics that seem plainly true even though the actual incidence of the trait in particular members of the kind is quite small. Leslie's central example of this sort of generic is *Mosquitoes carry the West Nile virus* (2008, 39). This sentence is true even though very few mosquitoes actually do carry West Nile.

The hypothesis that generics are characterizing claims about kinds makes this kind of generic less intractable for two reasons. First, suppose we accept for the sake of argument that *Mosquitoes carry the West Nile virus* is true. Then according to the above account we ought to be able to reason as follows.

1WN: Mosquitoes carry the West Nile virus.
2WN. The insect in front of me is a mosquito.
3WN. The insect in front of me ought to carry the West Nile virus.

Now suppose, as is likely, the mosquito in front of me is not in fact carrying West Nile. Now our question arises: why isn't this particular mosquito as it ought, qua mosquito, to be? That is, why isn't it instantiating an alleged characteristic of its kind?

We can imagine various different answers to this question. This particular mosquito may have been squashed, or starved, or it may live in a controlled laboratory environment. But suppose we go through this process often enough to realize that almost no mosquitoes are actually carrying West Nile. In this case we may entertain the possibility that the best explanation for all of these mosquitoes not being as they 'ought' to be is that the original characterizing claim is false; mosquitoes do not carry the West Nile virus after all. We could learn a fact like this about a kind, and come to revise our beliefs accordingly, by coming to understand not just *that*, but rather *why* none of the particular mosquitoes we meet carries West Nile.

Here it is helpful to compare what happened when people feared that HIV could be transmitted by mosquitoes. As it happens, *Mosquitoes carry HIV* is false. But it is not just the fact *that* none of them do, but the reason *why* none of them do that leads us to say that Mosquitoes (the kind) do not carry HIV. There are various mechanical and biochemical factors that make mosquito HIV transmission impossible, including that mosquitoes *digest* HIV, unlike malaria or West Nile, which they can transmit (Crans 2015). But if the reason instead were that all the mosquitoes infected with HIV had been fitted with a microtechnological muzzle, that would not tend to falsify the characterizing claim.

In the case of West Nile, then, we are partially helped by being able to pose our explanatory question (why not?) because pursuing this question can help us to rule out certain explanations (such as, in this case, that the kind-characterization is false). But thinking about generics as characterizations of kinds also permits us to reflect on a further question: what exactly is the

characteristic that this generic predicates of the kind? *Mosquitoes carry the West Nile virus* says that mosquitoes (the kind) are characteristically *carriers* of the pathogen, not that they are characteristically infected with it. The characteristic of being an asymptomatic disease *carrier* or *vector* is somewhat different from the characteristic of being infected with (i.e. carrying) a given pathogen, and the normative implications of these traits are correspondingly somewhat different. According to the World Health Organization,

> Vectors are living organisms that can transmit infectious diseases between humans or from animals to humans. Many of these vectors are bloodsucking insects, which ingest disease-producing microorganisms during a blood meal from an infected host (human or animal) and later inject it into a new host during their subsequent blood meal. Mosquitoes are the best known disease vector. (2015)

Now, consider the contrast between two possible inferences, one of which attributes to the kind, *mosquito*, the characteristic of being a disease carrier or vector, and the other of which attributes to the kind the characteristic of being infected with a given disease.

> 1WNi. Mosquitoes carry (that is, *are infected with*) West Nile.
> 2WN. The insect in front of me is a mosquito.
> 3WNi. This insect, *qua* mosquito, ought to be carrying (infected with) West Nile.

> 1WNv. Mosquitoes carry (= are carriers of or vectors for) West Nile.
> 2WN. The insect in front of me is a mosquito.
> 3WNv. This insect, *qua* mosquito, ought to be a carrier or vector for West Nile.

The second inference (WNv, for vector) seems to better capture what is actually being communicated by *Mosquitoes carry West Nile*. When we ask why a given insect doesn't 'carry' (as in, isn't *infected with*) West Nile on the first construal, the answer will be something like, 'very few mosquitoes are actually infected with the West Nile virus because very few are actually exposed to it'. The reasonable next question will be: so why do you insist that it's a characteristic of the kind to be infected? On this interpretation West Nile might be a case where our search for an explanation leads us to reject the initial generic characterization.

But when we construe *Mosquitoes carry West Nile* along the lines of WNv, the statement is much more plausibly a true characterization of the kind, mosquito. It makes good sense of such statements as the following from the Georgia Department of Agriculture:

> Even if you live in an area where mosquitoes are known to carry West Nile Virus or other viruses, very few mosquitoes will actually be infected and capable of transmitting the viruses to humans (2015).

Now suppose we come across a mosquito that is not *a carrier for* West Nile – that is, that does not or cannot transmit the disease to human beings or birds. A different sort of explanation will be called for as compared to the case of an *uninfected* mosquito: is this a mutation? Does this mosquito digest the virus? Etc. This finding will have different disease control and public health applications, as compared to the no-doubt valuable information about what percentage of mosquitoes are

actually infected with West Nile.

None of this is to say that human beings aren't often inclined to assent to ostensible characterizations of kinds for psychological reasons, including if a characteristic counts, for us, as a particularly "striking property" of a kind, as Leslie suggests (2008, 40-42). Pernicious stereotypes of the sort discussed by Haslanger (2011; 2014) are plausibly a kind of generic characterization that people take as true for reasons other than the actual presence of an attributable characteristic. One sign of this is the fact that, when faced with another, and another ... and another particular individual who fails to instantiate the ostensible kind-characteristic, the person in the grip of an ideology does everything to explain those exceptions *other* than to revisit the truth of the original characterization itself.

But on the view I have sketched here, the problem with pernicious stereotypes and ideologies is not that they are essentializing *per se*, although as I mentioned above the notion of 'essence' is not a good gloss of characteristics if by it is meant something a priori, necessary or immutable. Instead, the problem with pernicious stereotypes may be that they take as a kind something that is not a kind (e.g., *Blondes*), or that they attribute to a group or kind something that is not actually characteristic of that group or kind (e.g. *are vacuous*), or both. In short, though there is more to it than this, *a* principal flaw of stereotypes and similar such ideologically supported generic characterizing claims is simply that they are false. In these cases, the qualitative characterization account of generics gives us resources for locating and articulating the falsehood in the claim that is being made.

The above explanation of *Mosquitoes carry the West Nile virus* involved interpreting the characterizing claim in such a way that it attributed to the kind a trait that is also possessed by a majority of its members (being a disease vector). And so far, we have been looking at examples of generics that attribute characteristics to kinds which can also be uniformly predicated of individual members of the kind. Now let us consider how the qualitative characterization account helps us to understand characterizations of kinds where the relevant characteristic cannot be uniformly predicated of all members of the kind, such as *Birds lay eggs*.

The key to understanding these kinds of generics on the qualitative account is to bear in mind that not everything that can be truly predicated of a kind can also uniformly be predicated of its individual members. For example, *The peregrine falcon ranges over five continents* predicates something of the kind Peregrine falcon that cannot be true of any particular falcon. But because we are not explaining the meaning of generic characterizations in terms of what is true of the *members* of the kind, this fact does not bear on the truth or falsity of the characterization itself.

Consider an evaluative inference using *Birds lay eggs*:

1B. Birds lay eggs.
2B. Brewster is a bird.
3B. Brewster ought, *qua* bird, to lay eggs.
4B. Brewster doesn't (or can't) lay eggs.

Now suppose we look for an explanation for Brewster's failure to lay eggs, and discover that he is a rooster. In that case, Brewster doesn't (can't) lay eggs because he is male. When we discover that this is the explanation for Brewster's failure to instantiate a characteristic of his kind, the appropriate response is to reject 3B. Even though it is true that birds lay eggs, it is not the case that

male birds *ought* to lay eggs.

Although this is the appropriate response, its aptness does not imply that *Birds lay eggs* is not a norm for individual birds. Rather, it highlights something that should already be apparent about the characteristic-based evaluative inferences we considered above: these inferences, while valid, are not formal inferences. Whether a given characteristic-based inference is sound depends on what kind of characteristic is being attributed to the kind by the relevant generic characterization – and it also depends on what kind of kind is being characterized. Here, again it is helpful to think about this case in terms of the two tools we developed above.

We can see that the trouble with this inference is located in the move to 3B by asking ourselves how we would spell out the 'in order to' clause that disambiguates the relationship between the individual and the kind-characterization-*cum*-norm. We would have to say something like 'Brewster ought to lay eggs in order to reproduce in the manner that is characteristic of his kind'. Given what else we know about birds, it is clearly *not* consistent with the characteristic manner of avian reproduction for male birds to lay eggs. But this means that we will only be in a position to reject 3B if we know enough about the kind *Bird* to know that birds reproduce sexually and that there are both male and female birds, each with a characteristic role in the reproductive process. This is precisely what we need to know to understand what kind of characteristic *Birds lay eggs* attributes to the kind.

In the case of *Birds lay eggs*, the sentence is true because it accurately ascribes a certain method of reproduction to a kind of animal. When we understand that the characteristic being attributed is a particular means of sexual reproduction then naturally we will not take the characterizing claim to imply that the majority of members of the kind will, or ought to, lay eggs. In contrast, suppose we are attributing a defining trait to a mathematical kind, as in *Triangles have three sides*. Here, grasping the content of what is predicated (three-sidedness) and of what it is predicated (triangles) will lead us to expect that *every* triangle has three sides. So again, for a different reason, the 'ought' claim is not apt; this time because there is just no room for deviating from the norm of three-sidedness while remaining triangular.

III. Conclusions

Do we still need *Gen* on this account? One could, in principle, take on the notion of characterization and treat it as a new specification of the content of *Gen*, replacing 'generally, typically, or usually', with 'characteristically'. After all, the qualitative account still faces Carlson's original problem of locating the difference between generic and non-generic uses of bare plurals (1977b). But the foregoing discussion strongly suggests that *Gen* is not a promising way to make this distinction, because *Gen* purports to clarify something about generic sentences' manner of predication, whereas the ambiguity that is at issue comes from the fact that sentences with bare plural subjects don't advertise whether the subject NP is a kind or a group of particular instances. This suggests that the semantic challenge here is similar to the challenge in knowing what is meant by sentences such as *Banks are dangerous places*. I am inclined to say that the meaning of a given generic sentence will be clear without unexpressed operators as long as it is clear that the sentence predicates a trait *of a kind*, as opposed to a collection of individuals.

My proposal, then, invites a revision to the syntactic and semantic orthodoxy about generics. But in spite of this, I take it that the view I have sketched fits well with the broader

consensus about the phenomenon of genericity. For example: the characteristics of different kinds of things are constitutive of their being what they are. No wonder then that generics are a highly varied linguistic phenomenon that tracks the innumerable *differences* between different kinds of things in nature as opposed to tracking some clean, simple property had in common by the referents of all bare plural NPs. Generics construed as characterizations are integrally bound up with our ability to grasp and speak about the very concepts of different kinds things in our world. No wonder, then, that children learn to use them first. (One can hardly think about how many stoves are actually hot at a given time, or whether all of the are, before one knows what a stove is. And knowing what a stove is amounts to knowing what is characteristic of stoves, including principally that *they get hot*.) Finally, no wonder, too, that subtly and maliciously false generics abut social kinds are so dangerous and so powerfully instrumental in sustaining and creating social injustices. For they purport, not merely to tell us how things are for the most part, or with a majority of instances of a kind, but rather to tell us what is characteristic of a kind of social entity, and thus how things normally ought to be with individual instances of that kind.

Generics are not generalizations; they are qualitative characterizations of kinds. They say that something is characteristically true of their subject. Sometimes – a stronger version of the same thing – they say that something is *definitively* true of their subject; part of its definition. Generics serve as norms for particular members of kinds, because generic statements express part of what we know to be true about a kind, in virtue of knowing which we grasp the concept of that kind of thing.

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