

Generics: A Philosophical Introduction

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As remarked in the Introduction to this volume, there are two different phenomena that have been comprehended under the title of ‘generics’: (a) reference to kinds and (b) some statements of generality.¹ Reference to kinds is a feature of (some) noun phrases², since it is (some) NPs that can accomplish reference. Meanwhile, generic statements involve an entire sentence, since it is entire sentences, or at least entire clauses, that can make truth-claims. The two types can occur together because one uses generic statements tell of a regularity that holds across individuals of a kind, and one way to state such a regularity is to predicate it directly of the kind. Thus we might see a number of polar bears that are white, and none that are of any other color. One way to express one’s feeling that this is “generically true” of polar bears is to attribute the property whiteness to the kind, *Ursus Maritimus*, and say *The polar bear is a white animal*. We can see already one of the many

¹The issues in this Overview are developed in much more detail in Krifka et al. [1995], from which the material in this section is adapted. The relation of generics to issues in nonmonotonic reasoning, mentioned but not developed later in this overview, are considered in Pelletier and Asher [1997]. The two classical sources for modern treatments of generics are Lawler [1973] and Carlson [1977]. A reasonably full bibliography of works on generics up to 1995 is in Carlson and Pelletier [1995].

²I use NP for ‘noun phrase’. Intuitively, and without invoking an entire linguistic theory, I picture some of the members of the lexicon of a language to be nouns (N), and that these can be part of larger phrases called ‘common noun phrases’ and abbreviated CN, and that finally these in turn can be part of still larger phrases called ‘noun phrases’. Intuitively, a noun is a single word such as ‘bear’, ‘boy’ or ‘bonnet’; a common noun is a noun modified by such items as adjectives and relative clauses, like ‘brown bear’ or ‘boy who is tall’ or ‘white bonnet made of cotton’; and a (full) noun phrase is a common noun phrase that has been “determined” by an determiner or a quantifier, like ‘a big brown bear’ or ‘the boy who is tall’ or ‘some white bonnet that is made of cotton’. Two things might be noted: first, by this definition a plural added to a noun makes it a common noun, and second, this definition makes some pieces of language be simultaneously of two or all three of these categories. (For instance, although ‘the boy’ is a NP by this definition, the embedded ‘boy’ is both a CN since it is CNs that get “determined” and become NPs, and also a N because that is the lexical entry which could have been modified by an adjective or relative clause. A “bare plural” like ‘bears’ in the sentence *Bears hibernate*, is simultaneously a CN but also an NP. A “bare singular” like the mass term ‘water’ in *Water is wet* is simultaneously a N, a CN, and an NP.) When assigning semantic values to items of language it is of course crucial that the values be of the sort that is relevant to the linguistic category to which the term belongs, and so one should expect that the semantic value of these sorts of terms will change depending on which category is being discussed.

philosophical puzzles arising: since species and genera are abstract objects, they cannot be white; only physical objects can be white. So, how is it that we can predicate whiteness of The Polar Bear? And yet another philosophical puzzle is in the background here, since we know that it could be that some polar bears have a genetic anomaly that makes them be brown rather than white. Yet, it could remain true that polar bears are white. How can generic statements be true, that is, report a feature of reality in this manner, while acknowledging the existence of exceptions?

Reference to Kinds

Reference to kinds occurs when a NP refers directly to a (abstract?) kind. Sentences that employ this sort of NP will attribute a property directly to the kind, and only indirectly, if at all, to members of that kind. How can we tell when that is happening? Consider the sentences

- (1) a. The dodo is extinct.
 b. Shockley invented the transistor.

Here we are assured that the predicates *is extinct* and *invent* apply directly to a kinds, because they are not applicable to individuals at all — no individual can be extinct, only species or kinds; no individual item is invented, only the type or kind. Thus, the subject of (1-a), *The dodo*, and the direct object of (1-b), *the transistor*, must refer to kinds. Once we have assured ourselves that there really is at least some direct reference to kinds, it becomes natural to see many other types of sentences as involving the same mechanism.

- (2) a. *The potato* was first cultivated in South America.
 b. *Potatoes* were introduced into Ireland by the end of the 17th century.
 c. The Irish economy became dependent upon *the potato*.

all involve reference to the kind *Solanum tuberosum*. (Although there was probably some first-cultivated potato, and some first potato that came to Ireland, these seem not to be what the sentences in (2) are saying). We see that not only can definite NPs as in (2-a) refer to kinds, but also bare plural NPs as in (2-b) can do so too. And this reference is not restricted to the subject position of sentences, as (1-b) and (2-c) show. We should note also that mass terms can be kind referring, as in

- (3) *Gold* is a precious metal.

As well, we can use indefinite and quantified NPs to accomplish a special type of kind reference, that which is usually called “taxonomic kind reference”, as in

- (4) a. The World Wildlife Organization decided to declare *a large cat* to be endangered.
 b. The World Wildlife Organization decided to declare *several large cats* to be endangered.
 c. *Three metals* – titanium, platinum, and iridium – moved up sharply on the commodities market.

One of the most interesting questions that reference to kinds brings forward is the issue of what the relation is between “ordinary individuals” and generic NPs. A standard answer is that the relationship is one of “exemplification”: individual people exemplify the kind Mankind, and a certain collection of individual houses exemplify the kind Arts and Crafts House. (The exemplification relation is normally left as a primitive concept). One might wonder whether there are any other relations, and investigating the variety of generic NPs might throw some light on this.

It has been noted that it is not possible to form kind-referring NPs with just *any* noun. Contrast (5) with (6).

- (5) a. The German shepherd is a faithful dog
 b. The Coke bottle has a narrow neck
- (6) a. ?The German fly is a lazy insect
 b. ?The green bottle has a narrow neck

Basically, the N or CN must somehow be “semantically connected with” a *well-established kind*, before one can make it a determined NP that designates a kind. But of course by constructing an appropriate story as background (e.g., a story that describes how medical science has discovered the way that green bottles protect medications indefinitely), one can thereby establish green bottles as a kind, and legitimately say

- (7) The green bottle has saved countless children’s lives.

Does this suggest that kinds are created (and destroyed) by our use of language? Does it mean that an individual or a society can promote a NP to be kind referring? What implications are there in this observation for ontology, relativism, and for realism vs. anti-realism? How do these sorts of considerations fit into the project of natural language metaphysics? A study of kind-reference, from both the theoretical and psychological points of view, could throw some light onto this philosophically important question.

As we have seen, reference to kinds is not simple, even in the case of direct reference to kinds that I have been discussing. But matters are even more complex in the case of “indirect reference” to kinds. There are very many different sorts of this indirect reference to kinds, and it is not at all transparent as to what causes some sentence – which is directly about an ordinary individual (in senses to be specified) – to indirectly refer to a kind. Is

it a feature of the verb phrase? Or maybe culture? The differences are quite difficult to understand, but here is a classification, following Krifka et al. [1995].

The first type of indirect reference occurs when reference to a single, specific object generates reference to a kind. One intuitively thinks that this should not be possible, since a reference in a sentence to a specific object – which makes an individual predication relevant to that object – should result in a claim that is particular to that one object alone. Yet there are at least two different ways this sort of reference to an individual can be indirect reference to a kind.

- (8) Representative Object Interpretation
 - a. In Alaska we filmed *the grizzly*
 - b. Look children: *this* is the reticulated giraffe
 - c. Quiet!! — *The lion* is roaming about!
- (9) Avant-garde Interpretation
 - a. *Man* set foot on the Moon in 1969
 - b. *Man* learned to solve cubic equations in the 13th century

In the sentences of (8), only one object need be relevant, and yet this is sufficient to generate a truth about the kind. In (9), the claims are true of the kind, Man, because of the actions of some first particular instance of that kind performing the action in question. The name ‘avant-garde’ suggests that this type of kind reference is somehow essentially temporal, although it is difficult to make this precise, since not everything that was done for the first time by some person can generate this indirect reference to a kind, as we will see shortly.

There are also references to kinds that happen (apparently) because of the sort of *property* being predicated. I here mention four different types. In these cases, we manage to refer to the kind even though the property in question is the sort that applies just to individual members of the kind. The four types of reference I consider differ in the number, or distribution, of members of the kind to which the property applies. In the Characterizing Property Interpretation (which I will consider in more detail in the next section), the property applies to the “typical” member of the kind – although perhaps not to all members. In the Distinguishing Property case, we manage to refer to the kind, The Dutchman or The Italian, even though the property being considered only applies to some (perhaps very small) subset of Dutchmen or Italians. The idea is something like this: even though most Italians don’t ski at all, those who do ski distinguish themselves by being very good at it (by international standards). The Collective Property Interpretation projects a property to the kind by means of a summation of the property’s holding of all instances of that kind, while the Average property Interpretation projects the property to the kind from an averaging of members of the kind.

- (10) Characterizing Property Interpretation
- a. *The potato* contains vitamin C
 - b. *Scandinavians* are blond
- (11) Distinguishing Property Interpretation
- a. *The Dutchman* is a good sailor
 - b. *Italians* are good skiers
- (12) Collective Property Interpretation
- a. *The German consumer* bought 11,000 BMWs last year
 - b. *Linguists* have more than 8000 books in print
- (13) Average Property Interpretation
- a. *The American family* contains 2.1 children
 - b. *German teenagers* watch four hours of TV daily

In psychological experimentation, then, it is important to determine what sort of kind reference is being employed, and not to inadvertently mix different types. In the converse direction, it would be very helpful for semanticists to have some sort of understanding derived from the psychology of speakers that explained what it is about their understanding or perception of the different NPs that gives rise to these different interpretations.

These seven different types of kind reference can be further distinguished. Note first that direct kind reference can involve a taxonomy, and hence employ a plural.

- (14) *The/Some dinosaurs* are extinct

which means that all (or some) of the species of dinosaurs are extinct. With the characterizing interpretation, an indefinite NP can be used with a meaning equivalent to the definite NP: (10-a) means the same as (15)

- (15) *A potato* contains vitamin C.

Here, the expectation is that all or most or the typical instances of potatoes will manifest the property of containing vitamin C. In this way, characterizing predication differs from the distinguishing, collective, and average interpretations, where there is no such expectation. Distinguishing interpretations are different from both characterizing and average interpretations. Note that if one uses the indefinite in the distinguishing sentences, the result is *false*, even though the bare plurals are true.

- (16) a. *An Italian* is a good skier / *Italians* are good skiers
 b. *A Frenchman* eats horsemeat / *Frenchmen* eat horsemeat

This suggests that, in this sort of context, an indefinite means something like “A typical or randomly chosen X will (probably) Y” (which is a characterizing meaning), whereas the distinguishing interpretation itself plays upon some presumed-known discriminating feature. (11-a) means (something like)

- (17) a. *The Dutch* are known to have good sailors
 b. *The Dutch* distinguish themselves from comparable nations by having good sailors.

The avant-garde interpretations have two further unusual features. First, the property in question has to be “important” for the kind. Thus, although the two properties mentioned in (9) clearly apply to Mankind, the properties in (18) are quite dubious:

- (18) a. ?*Man* broad-jumped over 8.8m in 1968
 b. ??*Man* ate 37 hot dogs in 12 minutes in 2005

What is it about these properties and kinds that make such predications infelicitous? It seems not to be a matter of what holds in reality, since all the examples I’ve used in the avant-garde discussion are based on factual events. But then how does this play into psychological accounts of the ways people understand generic reference? Is there anything that can be gleaned from experimentation in this area?

The other unusual feature concerns the nature of the kind in question. Neil Armstrong, the avant-garde object that makes (9-a) be true, is not only a person but also an American and a mammal. Yet both sentences in (19) are improper, for some reason

- (19) a. ??*The American* set foot on the Moon in 1969
 b. ??*The Mammal* set foot on the Moon in 1969.

An interesting finding from psychology could be to show why *Man*, but not *The American* or *The Mammal*, designates a kind appropriate for this sort of predication. Once again, such a finding would be of enormous interest to researchers in philosophical and linguistic semantics.

Generic Statements

The other notion of genericity concerns sentences that do not report specific or isolated facts, nor quantify over such facts, but rather express a kind of general property. They report a regularity that summarizes *groups* of particular episodes or events or facts or states of affairs. Much of our commonsense knowledge of the world is expressed by these generic sentences, and this is what makes them especially interesting to epistemologists and

psychologists who are interested in understanding how people encode information about the world — as well as to AI researchers interested in constructing artificial agents who would be capable of operating in the “real world”. Consider

- (20) a. Potatoes contain vitamin C
 b. The lion has a mane
 c. Machines are made from metal
 d. Fred drinks wine with dinner

Not only are these distinct from individual or particular predications that might be made about some specific potato, lion, or machine, nor about some particular dinner of Fred’s, but also they differ from explicit quantificational sentences like

- (21) a. *Each* potato contains vitamin C
 b. *All* lions have manes
 c. Fred *always* drinks wine with dinner
 d. *Some* potatoes are purple
 e. *Many* psychologists are clinicians

And, as I remarked in the previous section, the two forms of genericity can occur together:

- (22) a. *The potato* is highly digestible
 b. *Potatoes* are served whole or mashed as a cooked vegetable
 c. *The lion* has a mane
 d. *The Ivy-League Humanities professor* wears a tweed jacket

One of the most notable features of generic sentences is that they are “exception-tolerant”: Fred might omit wine from a few of his meals, some lions do not have manes, some potatoes are indigestible, and so on. In such circumstances, the sentences in (20) would be true while the corresponding ones in (22) would be false. It is this feature that piques the interest of many logically-oriented linguists, philosophers, and artificial intelligence researchers.

But how many exceptions can a generic statement tolerate and still be true? Consider the following “squish” of examples.

- (23) a. Snakes are reptiles
 b. Telephone books are thick
 c. Guppies give live birth
 d. Lions have manes
 e. Italians are good skiers

- f. Frenchmen eat horsemeat
Unicorns have one horn

If there were just one counterexample to (23-a), we would say it was false, but (23-b) is true despite the large number of communities with thin phone books. In fact, only female guppies give birth at all, and just the impregnated ones at that; and only adult male lions have manes, and even some of them have had accidents that caused them to lose their mane. It therefore seems that (23-c) and (23-d) are true of somewhat less than half the relevant population. As I remarked before, the fact is that only some few Italians ski; furthermore, only some few Frenchmen eat horsemeat. But the Italians who ski competitively are very good, and the institution of eating horsemeat is deeply a part of French folklore. Finally, *no* unicorn has one horn.

Even a “vague” quantifier would fail. Consider the vague quantifiers *Generally* or *In a significant number of cases*. The following generic statements, without any such quantifier, are false. Yet each would be true if quantified by one of these vague quantifiers.

- (24) a. Leukemia patients are children
- b. Seeds do not germinate
- c. Books are paperbacks
- d. Prime numbers are odd
- e. Crocodiles die before they are two weeks old
- f. Bees are female

There furthermore seems to be an “intensional” aspect to this sort of genericity. Consider the following generic statements.

- (25) a. This machine crushes oranges
- b. Mail for Antarctica goes in this box
- c. Members of this club help one another in emergencies
- d. Children born in Rainbow Lake, Alberta, are left-handed
- e. Pandas have three legs

The sentence (25-a) can be true despite the machine’s being destroyed just as it emerges from the production line, never to actually crush any oranges. (25-b) can be true even if there happens never to have been any mail destined for Antarctica, and similarly (25-c) can be true even if there never has been a relevant emergency. The statements are true because of a *purpose* of the machine, or an *agreement* as to where the mail is to be put, or *preparedness* to help in emergencies. Conversely, even if all the children born in Rainbow Lake happened to be left-handed, that by itself would not make (25-d) be true. For truth, we’d need to become convinced that there was something in the water of Rainbow Lake (or the like) that caused left-handedness, and it wasn’t just a statistical accident. And

again, it might turn out that in the future where there are only some very small number of pandas left in the world, all in captivity, these few pandas managed to all lose one of their legs because of an unfortunate series of accidents. Still, even though all the pandas had three legs, this would not make (25-e) be true. Considerations like these have suggested to some that generic sentences are akin to scientific laws: “accidental generalizations” do not make true generic sentences.

Related somehow both to this and to the issue surrounding (5) and (6) above (concerning the way that reference to kinds requires that the kinds be “semantically well-established”), and equally difficult to explain, is that correct generic predication has to somehow be essential to the subject, unless the subject *directly* refers to a kind. (The example is from Lawler [1973].)

- (26) Generic predications
- a. Definite NP reference
 - (i) The madrigal is polyphonic (“essential” predication)
 - (ii) The madrigal is popular (“accidental” predication)
 - b. Bare plural reference
 - (i) Madrigals are polyphonic (“essential” predication)
 - (ii) Madrigals are popular (“accidental” predication)
 - c. Indefinite NP
 - (i) A madrigal is polyphonic
 - (ii) ??A madrigal is popular³

This seems to show that there are different routes to take in the attempt to refer directly to kinds. As (26-c-i) illustrates, one can make a generic characterization about a kind while using an indefinite NP, so long as the predicate is an essential or definitory of the subject. But if the property is merely an accident, as in (26-c-ii), then – even though (26-a-ii) and (26-b-ii) are true statements – the claim no longer makes the same generic sense. (Unlike the definite NPs in (26-a) and the bare plural ones in (26-b), the indefinite version seems only to make sense when the predicate is a part of the “definition” of the subject. Since popularity is not such a property of madrigals, (26-c-ii) comes out as infelicitous.)

It seems, then, that there is no number and no percentage that would tell whether or not a generic statement is true. So: what does? That is a question formal semanticists have been searching to find an answer for. One therefore wonders whether any relevant information can be gleaned from the study of the situations in which people use generic sentences, or perhaps from the situations in which children learn to use these constructions.

³Of course, this is just fine were ‘A madrigal’ taken to refer to some individual madrigal, rather than to the kind.

Consider three generic sentences, where the words in small capital letters indicate focal stress.

- (27) a. Leopards usually attack monkeys IN TREES
 ‘In cases where leopards are attacking monkeys, it is usually in trees’
 b. Leopards usually attack MONKEYS in trees
 ‘In cases where leopards are attacking something in trees, it is usually monkeys’
 c. Leopards usually ATTACK monkeys in trees
 ‘In cases where leopards encounter monkeys in trees, they usually attack the monkeys’

We see that different generic statements can be made by altering the stress of a sentence. The terminology used in the glosses brings forth the notion of “restricting cases”, and it is employed in explaining the conditions under which the relevant events take place. It is not, for example, correct that leopards are usually attacking monkeys in trees. In fact, like most cats, leopards sleep more than half the time. Similar features come out when we consider

- (28) a. Tabby (usually) lands on her feet
 b. Marvin (normally) beats Sandy at ping-pong
 c. Bears with blue eyes are (normally) intelligent
 d. People who have a job are usually happy

Tabby is *not* usually landing on her feet; Marvin is *not* normally beating Sandy at ping-pong. Instead, Tabby usually lands on her feet *in those cases where she is dropped*; Marvin normally wins *in those cases when they are playing ping-pong*. It is only in these classes of events that the main effect is being judged to usually or normally happen. In generics involving individuals (such as (28-c)), rather than events, we take the individuals to constitute the cases. This can lead to ambiguities, as in (28-d), where on the individual reading we are talking about people who have a job and are saying that most of these people, or the typical ones, are happy people. On the other reading, we are talking times during which a person has a job, and are saying that during most of these time periods the person is happy.

Krifka et al. [1995] develops a notation that seems adequate to capture these sort of differences within the generic sentences:

- (29) GEN[$x_1 \dots x_i$] (Restrictor[$x_1 \dots x_i$]; $\exists[y_1 \dots y_j]$ Matrix[$\{x_1\} \dots \{x_i\}; y_1 \dots y_j$])

GEN here is an “unrestrictive quantifier” that binds all the x_k variables simultaneously.⁴ (Although the examples I have been considering have only had one type of thing or event being quantified over, in theory there could be many.) In object-oriented generic cases, such as (28-c), the variable being quantified by GEN ranges over objects and the restrictor describes what objects are of interest; so (28-c) would be represented as (30-a) in this notation. If the cases being quantified were event structures, as in (28-a), matters could be more complex, bringing into play more complexity in the variables and perhaps bringing into use the existentially quantified variables that reside in the matrix.

- (30) a. GEN[x] (Bear(x) & Blue-eyed(x)) Intelligent(x)
 b. GEN[x] (Event(x) & Dropping(x) & Patient(x, t); $\exists y$ (Event(y) & SubEvent(y, x) & Culmination(y, x) & Agent(y, t) & Land-on-feet(y, t)])

(30-a) says that, generically, blue-eyed bears are intelligent. (30-b) says that, generically, events that are droppings-of-Tabby contain a subevent whose cumulation has Tabby landed on its feet. The specifics are not particularly important, for much could be altered and still retain the underlying intuition. What is needed, however, is some account of what it is to generically quantify, that is, an account of what GEN means.

Krifka et al. [1995] consider a number of alternatives and reject them all, leaving GEN an undefined notion. Here are some proposals that were rejected:

- (31) a. A restriction to **Relevant Quantification**. In this proposal, the GEN is a universal quantifier, but the restrictor contains a “relevant predicate” which varies depending on the local context. For example, the generic sentence ‘Whales give birth to live young’ would become ‘Every whale with property **R** gives birth to live young’. In this context, property **R** would be something like *is female, is adult, . . .*. The problem with this approach is that it makes all generic statements true, since one can *always* find such an **R**. Consider ‘Whales are sick’: we choose **R** to be *suffers from x, y, \dots* or maybe more simply *is sick*.
- b. Assertions about **Abstract Objects**. The idea is to consider the existence of an object that has none of the properties that vary amongst the specific objects that exemplify the kind; for instance, an arbitrary whale would not be grey, or black, or white, or any other color that varies among whales. Nor would it have any particular size, etc., etc. The theory of abstract objects says that a generic claim amounts to asserting that such an abstract object would nonetheless have the property of giving live birth. Against this proposal one might object to the introduction of arbitrary objects into the realm of objects in the first place; and we might also note that the proposal seems unable to distinguish between accidental generalizations and legitimate claims of a generic nature.

⁴The notion was made popular in Lewis [1975], to which the reader is directed for more details.

- c. Assertions about **Prototypes**. In this proposal, generic statements are really claims about prototypes or about prototypical instances of kinds. Thus ‘Cats have tails’ amounts to saying ‘The prototypical cat has a tail’. To have this theory make any strong claims, one needs a robust theory of prototypes. Among other things, it would need to determine whether there is one or many prototypical cats. If the former, the generic statements are predications of this object; if the latter, then generic statements are universal quantifications over the set of these objects. Against the former version, note that both ‘Ducks have colorful feathers’ and ‘Ducks lay whitish eggs’ are true generic statements, and yet only male ducks have colorful feathers while only female ducks lay whitish eggs. Assuming that no duck, especially not a prototypical one, can be both male and female, it seems to follow that there must be more than one prototype of duck. But universal quantification now won’t work either, since it is not the case that all the prototypical ducks have colorful feathers nor do they all lay whitish eggs. (Various of the papers in this section presuppose the use of prototypes for the interpretation of these generics, e.g., Hampton and Prasada. So, a task arising from this conference is to re-assess the correctness of this critique of prototypes as the semantic value of generic sentences.)
- d. Assertions about **Stereotypes**. In this picture of generic quantification, stereotypes are *not* features of the world, but rather our conception or perception of the world. For example, ‘Lions have manes’ is seen as true, despite the fact that fewer than half of all actual lions have manes, is because our perception/picture or stereotype of a lion is of something that has a mane. But there are various apparent shortcomings of this theory. Although ‘Lions have manes’ is true in this theory, ‘Lions are male’ is false despite the knowledge that the males are a superset of the ones with manes. And ‘Lions are five-year-old males’ is also false according to the theory, even though this is a subset of the ones with manes. Furthermore, Krifka et al. [1995] take the most telling objection to the stereotype theory to be that it makes the truth conditions for generics to be societal (or even personal) whims. ‘Snakes are slimy’ would be a true generic because of the stereotype. And even though we might admit that *in fact* snakes are not slimy, the existence of the stereotype would continue to make the generic statement be true.
- e. Generics as **Modal Conditionals**. There is a clear similarity between generic statements like ‘Birds fly’ and conditionals such as ‘If x is a bird and is not abnormal, then x flies.’ In turn, this conditional might plausibly be analyzed as ‘In any of the most normal possible worlds, every bird flies.’ Variations on this general theme have been pursued by researchers in the field of artificial intelligence, since it seems relevant for an account of intensionality and law-likeness. However, as Krifka et al. [1995] points out, there are several roadblocks lying in the path of this approach. Does the notion of *the* most normal possible

world(s) make sense? Is it *really* more normal to have all birds fly? This can be done by killing off all the kiwis, ostriches, emus, penguins, Is that more normal? Or is it more normal to make them fly? To do this would be to either alter the structure of these birds drastically, or to change the laws of physics. Which is more normal?? And what about broken-winged birds, or fledglings? Is it really more normal either to eliminate them or to have them fly? If the most normal world had only bright-colored-winged ducks, then there would be only male ducks and no female ducks. But then there would be no males, either. The details of this approach require much more work.⁵

Perhaps some of the problems with one or another of these approaches can be removed by a careful re-identification of the underlying notions. Perhaps there are some other available interpretations of GEN. And finally, it is always possible that the whole approach under consideration – with its reliance on finding aspects of the world that constitute the “truth-makers” for generic statements – is a flawed approach to meaning, at least in this realm, and that generics are *not* to be evaluated as talking about “external reality”, but rather about a “linguistic reality” or a “social reality”. Many of the remarks in Carlson’s and Prasada’s papers in this section are relevant to this issue, as are the remarks from a child developmental perspective in Gelman’s paper. As well, Hampton’s paper is directly aimed at defending a mentalistic picture of prototypes, and this too is directly relevant to the topic.

These are some of the sorts of results that would be of great interest to philosophers, linguistics and semanticists generally.

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⁵One direction to this approach is taken in Pelletier and Asher [1997].

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