GENERIC GENERALIZATIONS

Meaning and Social Practices

Un atelier de la Chaire de recherche du Canada en épistémologie pratique

Workshop organized by the Canada Research Chair in Applied Epistemology

Université de Sherbrooke
Local / room A4–166

16-17 MARS 2018 / MARCH 16-17, 2018

UNIVERSITÉ DE SHERBROOKE

ÉPISTÉMO Pratique

CRE
CENTRE DE RECHERCHE EN ETHIQUE

CIRST
Centre interuniversitaire de recherche sur la science et la technologie

DESCRIPTION DE L'ATELIER

*Veuillez noter que l'atelier se tient en anglais.

Les énoncés génériques sont des généralisations portant sur les membres d'une catégorie ou d'une espèce. En français, ils prennent la forme de phrases telles que *les corbeaux sont noirs, un corbeau est noir, le corbeau est noir*, et *l'or est jaune.* Puisqu'ils ne fournissent pas explicitement d'information sur le nombre de membres de la catégorie ayant la propriété attribuée, révéler leur quantificateur implicite a d'abord semblé être la bonne approche pour déterminer leur signification. Au fil des recherches, il est devenu clair que les quantificateurs les plus communs ne suffisaient pas et que nous devions trouver un moyen plus subtil de rendre compte de ces énoncés, soit en utilisant un nouveau quantificateur ou bien en laissant tomber l'approche ensembliste. Au départ, la question principale était *quelle-est la signification des génériques*?, mais il semble maintenant que la question soit *comment les génériques signifient-ils?*

L'intérêt pour une meilleure compréhension des génériques est plus qu'intellectuel. Les génériques régulent nos interactions sociales de plusieurs manières. Ils sont, par exemple, un moyen d'expression pour les stéréotypes et les préjugés, lesquels contribuent au maintien de diverses injustices. Ceci dit, les génériques peuvent aussi exprimer d'importants enseignements dans les relations entre adultes et enfants ou entre experts et profanes, enseignements jugés essentiels au bien commun. Puisque les génériques ne sont pas nécessairement mauvais au plan social, une question est ouverte: c*omment pouvons-nous évaluer les divers rôles que jouent les génériques en société?*

Cet atelier vise à explorer deux types de questions sur les génériques – leur *signification et leur dimension sociale.*

WORKSHOP DESCRIPTION

Generic sentences are generalizations about the members of a category or a kind. In English, they take the form of sentences such as *ravens are black, a raven is black, the raven is black,* and *gold is yellow.* Since they do not explicitly carry information about how many members of the category actually possess the property, uncovering their hidden quantifier first seemed to be the way to identify their meaning. As this inquiry went on, it became clear that the most common quantifiers were not enough and that we needed a subtler account, either relying on a new quantifier or doing away with classical set-theoretic semantics altogether. At first, the primary question was *what do generics mean?* But it seems like it has now become *how do they mean?*

A better understanding of generics is more than of purely intellectual interest. Generics regulate in various ways our social interactions. For instance, they are means to express prejudices and stereotypes. In so doing, they can reproduce injustices. But generics are also means to convey important lessons from adult to child or from expert to layperson, lessons which might be for the greater good. Since using generics is not necessarily socially detrimental, an open question is: *How can we evaluate the diverse roles played by generics in society?*

This workshop aims to address these two types of questions about generics – their *meaning* and their *social dimension.*

HORAIRE / SCHEDULE

Vendredi / Friday 16th

Heure / Time	Conférencier.e / Speaker	Titre de la présentation / Talk Title
09:00 – 9:15	*Introduction / Introductory Remarks*	
09:15 – 10:15	**Keynote** — Marjorie Rhodes (NYU)	*How differences become different kinds*
10:15 – 11:15	Martina Rosola (State U of Genova)	*Implicit Essentialization In Generics*
11:15 – 11:30	*Pause café / Coffee Break*	
11:30 – 12:30	Mirela Fus (St Andrews & Oslo)	*Conceptual Engineering of Pernicious and Beneficial Generic Language*
12:30 – 13:45	*Diner / Lunch Break*	
13:45 – 14:45	Patrick O'Donnell (John Hopkins)	*Racialized Terms and Inherent Genericity*
14:45 – 15:00	*Pause café / Coffee Break*	
15:00 – 16:00	Ravi Thakral (St Andrews)	*Moral Principles as Generics*
18:30	Souper au / Dinner at L'Gros Luxe	146 Rue Wellington Sud, Sherbrooke

---

Samedi / Saturday 17th

Heure / Time	Conférencier.e / Speaker	Titre de la présentation / Talk Title
09:00 – 10:00	**Keynote** — Bernhard Nickel (Harvard)	*The Division of Ideological Labor*
10:00 – 11:00	F. Claveau (UdeS) & J. Girard (UQAM)	*Generic Generalizations in Science*
11:00 – 11:15	*Pause café / Coffee Break*	
11:15 – 12:15	Federico Cella (Vita-Salute San Raffaele)	*Quantitative Generics*
12:15 – 13:30	*Diner / Lunch Break*	
13:30 – 14:30	Henry Schiller (U of Texas at Austin)	*Justifying Generalizations*
14:30 – 14:45	*Pause café / Coffee Break*	
14:45 – 15:45	Rachel Sterken (U of Oslo)	*Generics and Amplification*

CONFÉRENCIÈRE INVITÉE / KEYNOTE SPEAKER

Marjorie Rhodes — New York University

How differences become different kinds — vendredi / Friday 9:15

Résumé / Abstract:

Systems of human social categorization vary markedly across contexts, cultures, and time. The present talk will discuss how children develop beliefs that particular, culturally relevant criteria mark fundamental, stable, and informative differences between people. Part 1 will examine how subtle linguistic cues lead children ages 2-5 to treat otherwise arbitrary criteria as marking distinct kinds of people. Part 2 will examine the consequences of these beliefs for children's category-relevant beliefs, attitudes, and behavior. Finally, Part 3 will present new research on how to counteract some of the negative consequences of these processes to promote positive development.

CONFÉRENCIER INVITÉ / KEYNOTE SPEAKER

Bernhard Nickel — Harvard University

The Division of Ideological Labor — Samedi / Saturday Friday 9:00

Résumé / Abstract:

The concept of ideology poses the micro-macro problem particularly acutely. An ideology at least contains a set of propositions that concern a group of people and which includes stereotypes, archetypical narratives, statistics, and clichés, but also more general principles that purport to explain and ground the relatively more surface-level purported facts.

Because ideologies are macro-level phenomena that help us understand the persistence of social structures and, depending on the case, unjust distributions of resources and opportunities, they raise the question of how the psychology of individual agents—a micro-phenomenon—is related to an ideology. Ideologies pose this micro-macro problem in a particularly acute way because they can operate without the conscious awareness of the people whose thought and action we understand by invoking them. In such cases, standard pictures of how social-level cognitive elements can be related to individual-level ones, e.g., via the notion of common belief, are inapplicable.

This paper proposes a new model for how the psychology of individual agents is related to a social-level construct like an ideology, inspired by the paradigm of semantic externalism about reference. Because semantic deference generally operates below the level of individual consciousness, it's a promising model for understanding how ideologies function. The paper goes beyond these more familiar forms of deference in arguing that speakers can defer about the explanatory resources they deploy. The paper makes this case by using generic generalizations as a case study.

MARTINA ROSOLA

State University of Genova ('Università degli studi di Genova'), Italy

Implicit Essentialization In Generics — Friday 16, 10:15

Abstract:

In two recent works (2007 and 2017), Sarah-Jane Leslie argues that generics promote essentialization, namely, they lead one to believe in an essence of the kind they are about (henceforth referred to as 'K'). But in virtue of what do generics have this force? I propose that this force lies in that generics, unlike other constructions, convey *implicit* claims about essences, that are difficult to recognize and to reject.

Generics are sentences that express generalizations about a kind K and in which no explicit quantifier occurs. Examples of generics are the following:

(1) a. Tigers are striped.
b. Ducks lay eggs.
c. Muslims celebrate Ramadan.

Leslie argues that these sentences promote essentialization more than other constructions. She does not, however, investigate what allows generics to do that. Sally Haslanger (2011), on the other hand, tries to identify what is special about generics. She hypothesizes that generics convey, either via implicature or via presupposition, that the kind K has the predicated property P *by nature*.

Indeed, generics, unlike quantified sentences, express non-accidental connections. In case of an accidental connection between being a K and having P, the quantified sentence that states the relation may be true while the correspondent generic is false. Consider for example sentences (2) and (3):

(2) All cats have three legs.
(3) Cats have three legs.

Imagine a situation in which, by accident, all cats lose one leg and thus they all have three legs. In this context, (2) will be true and (3) will be false. Imagine, instead, that evolution selected cats with three legs. In this scenario, all the cats

have three legs and this is due to an inherent property of cats. In this situation, both (2) and (3) are true. The same holds for generics about social kinds as well: if all managers are men by accident, (4) is true while (5) is not. In a context in which a law states that only men can be managers, on the other hand, (5) also is true:

(4) All managers are men.
(5) Managers are men.

Sentence (4) does not differentiate between the two situations since it is true in both cases. Hence, if a speaker wants to make it clear that managers are men not by accident, she has to choose (5). Haslanger,

thus, seems right: in choosing a generic, a speaker conveys that Ks are P *by nature*. This claim entails that there is some kind of essence of the kind K. This is why generics lead to essentialization. On the other hand, quantified sentences do not contain such a claim and thus do not promote the belief in an essence of the kind K.

Generics lead to essentialize a kind while quantified sentences do not and this is due to the fact that an utterance of a generic conveys a claim about the nature of Ks. However, if this is correct, we should expect to find the same effect in every sentence that contains such a claim. Dispositional predicates clearly make reference to dispositions and thus should lead to essentialize just as generics do. However, the prediction is not born out. Let us consider the following sentence:

(6) Managers are disposed to be men.

Sentence (6) states a principled connection between being a manager and being a man, just as (5), "Managers are men", does. This connection, though, does not hold in the actual world: there is no law or any feature of being manager that prevents women to be managers. Many, perhaps most, managers are men but this is a coincidence. Thus, both (5) and (6) are false. However, (6) is clearly false while (5) seems fine (but it is not). Many speakers seem not to realize the false claim in (5). Therefore, (5) is likely to be accepted while (6) is likely to be rejected.

This fact, though, makes a big difference for essentialization effects. Only the sentences that are accepted lead to essentialize a kind. Thus, even if both the generic sentence and the dispositional predicate make reference to some underlying property of managers, only the generic leads to essentialization. *In principle*, both constructions could lead to essentialize the kind, *in practice* they do not.

My hypothesis is that the reason for this fact relies on how the connection is stated: in sentence (6) dispositions are referred to *explicitly* while in (5) *implicitly*. Since in (6) the deep link between being a manager and being a man is stated overtly, speakers immediately recognize that the sentence is false. This is even clearer in a case like (7), where the claim about nature is not only explicit but also distinguished from the main claim of the sentence:

(7) Many managers are men and that depends on their nature.

It is immediately evident that the second conjunct is false and thus the whole sentence has to be rejected. On the other hand, it is difficult to recognize what makes the generic (5) false. I argue that this depends on the fact that the claim about nature is implicit in generics. Thus, some speakers may accept (5) since they do not identify the source of its falsity.

Generics, thus, *do*, as Leslie argues, lead to essentialization more than other constructions. In particular, they do that more than quantified sentences and dispositional predicates. Moreover, their harm depends not only on the fact that they contain claims about nature and dispositions, as Haslanger argues, but in that such claims are *implicit* and thus are more likely to enter unnoticed in the *common ground*.

MIRELA FUS

University of St-Andrews & University of Oslo

Conceptual Engineering of Pernicious and Beneficial Generic Language — Friday 16, 11:30

Abstract:

Generic expressions or generics are statements that express generalizations but do not specify how many members of the kind have the property being expressed (e.g. "Dogs are mammals," "Tigers have stripes," "Mosquitos carry the West Nile virus"). In recent years, there has been an ongoing discussion on how to treat socalled *pernicious generics* since their use is considered to pave the way for discrimination, stereotypes, (implicit) biases, hate speec**h,** social injustice, etc. In particular, there has been a burgeoning interest in generics about social groups such as: "Blacks are violent," "Muslims are terrorists," "Latinos are lazy," "Women are submissive," "Girls like pink," "A woman puts family before career." In this talk, I discuss generic expressions about social groups in the context of *conceptual engineering*.

In the first part of my talk, I briefly compare and evaluate three *ameliorative strategies* for pernicious generics: Haslanger's (2011) *metalinguistic negation* as too narrow and underdeveloped, Leslie's (forthcoming) *rephrasing and eradication of our use of such generics* as too restrictive and self-undermining, and Saul's (2017) *getting better at talking and thinking not only about generics but other pernicious linguistic expressions* as being on the right track, however still underspecified and, more importantly, as not capturing the pernicious role that the form of generics expression itself can play.

In the second, positive, part of my talk, I focus on the role that the form of generic expression plays in the pernicious uses of generics, and I examine whether generics can be considered as *deficient linguistic expressions*. However, I also take into consideration some potentially beneficial uses of generic expressions, such as "Boys like pink too" or "Girls play football," (see Leslie 2017), and explain how generic expressions can also fit into what I dub *ameliorative linguistic expressions*. Finally, I argue that generics expressions can, in certain cases, lead to either *objectionable or ameliorative effects*. In order to argue for that, I rely on the notions of (i) *epistemicism about characterizing generics*, and *(ii) conceptual deficiency and conceptual amelioration.*

In support of (i), I briefly motivate and summarize an epistemicist view for characterizing generics, namely the *arbitrary reference view of characterizing generics* (see Author ms.). This view rests on Kearns and Magidor's (2012) defense of the metasemantic view of *semantic sovereignty*, and builds on Breckenridge and Magidor's (2012) notion of *arbitrary reference*.

In support of (ii), I further develop Cappelen's (forthcoming) taxonomy of conceptual deficiencies. In particular, I focus on a variety of conceptual deficiency he dubs *objectionable effects of the semantic value,* namely when semantic value itself is not defective, an expression "has a semantic value, but for that particular expression to have that semantic value has bad effects" (Cappelen forthcoming). He distinguishes between: (a) effects on theorizing; (b) cognitive effects; and (c) morally, politically, or socially objectionable effects. For the later group, namely for *morally, politically, or socially objectionable effects of the semantic value,* he offers the following illustration and two sorts of justifications:

"Illustration: that the word 'marriage' has an extension that excludes same-sex couple has bad effects:

> *Metaphysical justification:* this creates the social facts: the extensions of terms are in some cases constitutive of social reality and so insofar as it matters what our society it will matter what extensions our terms have.
>
> *Non-Metaphysical justification*: Even if you don't think meanings of words are constitutive of social reality, you can think that as a matter of empirical fact the divisions and classifications we make will have very significant social effects." Cappelen (forthcoming)

In the rest of the talk, I develop his notion of *objectionable effects of the semantic value* and introduce the notion of *ameliorative effects of the semantic value*. Then, I distinguish between *metaphysical and epistemic sources of the (objectionable or ameliorative) effects of the semantic value*. Finally, I argue for epistemicism about generics as an *epistemic source of the effects of the semantic value*, which can, as a result, in certain cases lead to either pernicious or beneficial uses of generic expressions about social groups.

PATRICK O'DONNELL

Johns Hopkins University, USA

Racialized Terms and Inherent Genericity — Friday 16, 13:45

Abstract:

In this paper, I describe a class of lexical items that I call "racialized terms" and argue that they are best understood as *inherent generics.* I provide a semantic framework which allows us to explain the central features of racialized terms, and which proposes exciting disciplinary connections between work on lexical semantics, generics, psychology, and the philosophy of race and racism.

Racialized terms covertly advance substantive claims and evaluations of specific racial groups while ostensibly referring to race-neutral agents and categories. Examples include "terrorist," "immigrant," and "thug," whose definitional senses make no reference to race, but which are frequently used to make claims about (*Arab) Muslims* , *Latinos* , and *Black/non-White men* under a thin veneer of descriptive race-neutrality. Since the use and interpretation of racialized terms in everyday discourse is frequently both product of and causal contributor to harmful forms of racial ideology, there are strong socio-political as well as semantic motivations to get clear on what racialized terms mean, and how they manage to convey their characteristic messages.

A theory of racialized terms ought to explain two things. First, it must explain the fact that racialized terms contain *differential thresholds* for different agents. The racial presentation of an agent or individual partially determines what threshold that agent or individual will face for the application of the term. For instance, politically motivated violent Whites are not in general judged to be *terrorists* , while violent (non-White) Muslims are. While violent attacks perpetrated by Muslims are called "terrorist attacks," mass shootings in the US perpetrated by politically, religiously, and racially motivated White gunmen are frequently referred to as the work of "extremists." Second, the theory must explain why the racialized meanings of racialized terms are *defeasible* . Unlike slurs, racialized terms *not* carry race-specific meanings in a wide variety of contexts. This allows speakers to use terms like "thug," "terrorist," and "immigrant" while felicitously disavowing commitment to the racial meanings of these terms.

I argue that the most promising way of explaining these features of racialized terms is to understand them as a species of generic generalization, and particularly as *inherent generics* . The semantics presupposes the standard model of the structure of generic sentences. Generic expressions are tripartite structures, containing a GEN operator which binds the entire expression, a Restrictor which specifies free variables, and a Matrix:

GEN Operator x,.....,z [Restrictor x.....z] [Matrix x.....z]

Drawing on Chierchia's (1995) hypothesis that individual-level predicates (as opposed to stage-level predicates) are best understood as inherent generics, I show that many of the terms most central to racialized discourse-- "thug," "terrorist," "immigrant," "savage," "criminal," etc.-- have this same tripartite structure. In these cases, GEN relates a Davidsonian argument denoting a range of *situations* in the Restrictor, to an i-level property specified by the Matrix:

$$[[\text{thug}]] = \lambda x \text{ GEN } s\ [\text{in } (x, s)]\ [\text{thug } (x, s)]$$

$$[[\text{terrorist}]] = \lambda x \text{ GEN } s\ [\text{in } (x,s)]\ [\text{thug } (x,s)]$$

To belong in the extension of "thug" is to have a stable, enduring propensity to be thuggish across a *general* range of situations. One of the immediate upshots of this analysis is that, analogously to the sense in which there need be no actual minimum or maximum number of black ravens in order for "Ravens are black" to be true, the question of *how many* situations in which an individual must be "thuggish" in order to count as a thug is underspecified or indeterminate. In many cases, it is up to the interpreter to determine just *which* ranges of situations are relevant to the truth of a given predication of "thug" or "terrorist."

This semantics gives us a ready explanation of why racialized terms present differential thresholds for different racial presentations. The empirical prediction is that in interpreting racialized terms, interpreters implicitly consider a given individual's racial presentation in order to determine whether the individual meets the threshold for the term. Assuming that the interpreter harbors stereotypes about the nature of Black and Muslim conduct, the semantic value they assign to the situation threshold will be constrained by these assumptions-- Blacks and Muslims will intuitively be taken to instantiate whatever properties are assumed to be "thug/terrorist-consistent" in a *broader* range of situations, or in that subset of situations which is deemed to be especially relevant to the interpreter.3 By the same token, the threshold corresponding to these lexical items will be assigned a more restrictive semantic value when Whites and non-Muslims are under discussion.

Second, understanding racialized terms as inherent generics allows us to explain why their meanings are defeasible. Those who favor pragmatic (e.g. Haslanger 2011) or non-content-based approaches (e.g. Khoo 2017) to racialized terms frequently note that content-based approaches are not well-equipped to explain why racial meanings are *defeasible*. I go over this distinction in the body of the paper. "Individual -level" or "i-level" predicates pick out fairly stable or permanent features of objects, while "stage-level" or "s-level" predicates pick out more fleeting or evanescent properties. For instance, the fact that I am sitting in a chair right now is a stage-level fact about me, since I could change that property by standing, moving, or sitting on the floor. On the other hand, the fact that I am over six feet tall is an individual-level fact about me. In the absence of accidents capable of affecting my height, I will continue to have the property of being over six feet tall. Of course, this distinction admits of borderline cases (e.g. is being black-haired an i-level property?) Consequently, the two classes of predicates are distinguished by a battery of linguistic tests.

For instance, if race-specific properties were somehow lexically encoded in or entailed by racialized terms, the following sentences should sound contradictory:

1) Dylan Roof is a terrorist, but he is not a Muslim.
2) Jens is a non-Latino immigrant from Sweden.

The fact that these sentence are intuitively fine is taken to be evidence that pragmatic and non-content-based approaches fare better.

Yet if racialized terms are inherent generics, we can give this defeasibility a semantic explanation. A well-

known feature of generic language is that it is closely related to *non-monotonic* patterns of inference. In general, if one knows that *Ks are F* , one is not allowed to conclude that any *particular k* within the set of *K* s is *F* . In fact, given *any* set of good inferences that can be drawn from a generic sentence of the form *Ks are F* , adding more information about kind *K* can make previously valid inferences invalid. 4 Suppose that every *bird* we've encountered so far can *fly* . We might form the belief that if *x* is a bird, then *x* flies. Yet then come across kiwis, ostriches, penguins, and are told that even though these animals don't fly, they are still birds. We might then qualify our original belief: if *x* is a bird, *x* flies *unless* it is a penguin, kiwi, ostrich, etc. What at first seemed to be a valid inference was seen to be invalid once more premises were added.

In a parallel fashion, if racialized terms are inherent generics, we should expect interpreters to grasp that race-specific individuals are under discussion only if they are not in possessing of auxiliary information which would render that inference invalid. Since interpreters are in fact in possession of such information much of the time, defeasibility is the rule, not the exception, for racialized terms, and such defeasibility need not threaten a semantic content-based analysis of them. In closing, I show that my analysis meshes well with other projects on the nature and impact of generic language, particularly the connections between genericity and psychological essentialism (Rhodes et al 2012, Leslie 2017).

RAVI THAKRAL

University of St Andrews, Scotland

Moral Principles as Generics — Friday 16, 15:00

Abstract:

There is an important connection between moral principles and generics. This paper argues that we should treat moral principles as generics, and that this has important implications for moral theory. Moral principles are usually expressed in sentences such as the following:

(1) a. One ought not to steal.
b. Lying is wrong.
c. If you make a promise, you should keep it.

Generics are statements such as the following:

(2) a. Ravens are black.
b. Birds fly.
c. Tigers are striped.

Generics express generalizations with a kind of quasi-universal flavor: they are true even in the face of counterinstances. Some generics (e.g. 'Tigers are striped') are about individual members of a kind and some (e.g. 'Dinosaurs are extinct') are directly about kinds. Such generalizations are expressed without any overt lexical item responsible for telling us about the nature of the generalization in question. Additionally, generics do not wear on their sleeves any information about how many members of a kind possess a given property. For instance, if one is asked how many tigers are striped, one may reply by saying that all/most/some tigers are striped, however one cannot reply felicitously using the generic 'Tigers are striped'.

In order to assess whether moral generalizations are generalizations in the sense that generics are generalizations, it is indeed important to start with some idea of what it would mean for some generalization to be a generic generalization. I submit that the following two features shall serve as hallmarks of linguistic genericity:

Resistance: Generics can remain true even if there are counterinstances.
Non-Numerity: Generics do not carry any information about how many instances are required in order to be considered true.

The reason to consider these features is because they help distinguish generic generalizations from generalizations containing overt quantifiers such as some or all, for such generalizations lack the features of Resistance and Non-Numerity. The features of Resistance and Non- Numerity are closely related–in the sense that Resistance says that generics can tolerate exceptions while Non-Numerity says that generics do not tell us how far this toleration extends. There are two remarks on these features.

First, generics tolerate exceptions, yet we cannot express their truth conditions the way we can with generalizations involving overt quantifiers. In the case of such quantified generalizations, we know that, for instance, a universally quantified generalization would be false if there is a single counterinstance; a most-quantified generalization would be false if most of the instances were actually counterinstances; and we know that a somequantified generalization would be false if there were no instance which was a witness to the generalization. With generics, however, there is no straightforward way of similarly specifying how it is that a generic can be false.

Second, generics do not provide us with any information about how many instances of a generalization are required in order for it to be considered a true generalization. Consider the following example. Suppose one is asked 'How many tigers are striped?' It is possible to reply by suggesting that all/most/some tigers or striped, but it would appear problematic if one were to reply by suggesting that tigers are striped.

There are good grounds for thinking that moral principles are generics, for they, too, possess the features of Resistance and Non-Numerity. There is good consensus that paradigmatic moral generalizations tolerate exceptions. Some theories of moral principles which posit special provisos even face diculties because there is likely no straightforward way to specify the content of such a proviso so as to account for all the possible exceptions. If we treat them as generics, we can accept that moral generalizations grant exceptions, and do so in a way that is apparently unspecifiable. Furthermore, moral generalizations do not wear on their sleeves any information concerning how many instances of the generalization hold true. For instance, suppose one is asked 'How many acts of stealing are wrong?' Depending on various factors about what the state of the world is like, it may be acceptable to reply by suggesting that all/most/some acts of stealing are wrong. It would, however, be infelicitous to reply by putting forward the generic claim that stealing is wrong.

Additionally, the characteristic of Resistance, as manifested in moral generalizations, appears to be one which resists statistical explanation in the sense that stealing is still wrong even if it turns out that the many cases of stealing are somehow exceptional or blameless cases of stealing. The coherency of the following claims provides some evidence of this:

(3) a. Stealing is wrong but many cases of stealing are blameless.
b. Stealing is wrong but some cases of stealing are blameless.
c. Stealing is wrong but most cases of stealing are blameless.

This paper argues that the thesis that moral principles are generics has substantial implications for ethical theory. In particular, I argue that it can play an adjudicating role in the dispute between generalists and particularists about moral principles. I argue that if moral principles are generics, we then get motivation for the idea that such principles do not play a significant role in moral thought and deliberation. This is argued on semantic and pragmatic grounds. In particular, whether we consider a range of views of generics–whether they are ultimately quantification or involve kind-predication–they are not well-suited to the task of being relevant for the task of moral deliberation concerning actual situations. Additionally, accepting the idea that moral principles are generics reveals that such principles can only guide us in a rather weak sense: on the generic view, moral principles o er advice or suggestions and cannot command or require.

FRANÇOIS CLAVEAU & JORDAN GIRARD

Université de Sherbrooke, Canada / Université du Québec à Montréal (UQAM), Canada

Generic Generalizations in Science — Saturday 17, 10:00

Abstract:

Generalizations are important to scientific knowledge and its transmission. In our paper, we argue that an important class of scientific generalizations has been misinterpreted. This class is constituted by the worldly (i.e., not model-based) and unquantified generalizations of the sciences, such as "Inequality hurts economic growth" or "Serotonin modulates behavioral reactions to unfairness".

The worldly and unquantified generalizations of science (hence "WUGS") have typically been interpreted as *ceteris paribus* laws. Under this interpretation, WUGS would contain an implicit clause to the effect that the stated relationship holds *ceteris paribus* or all things being equal. The challenge for the *ceteris paribus* literature then becomes to state explicit conditions for the implicit clause that do not trivialize WUGS or make them blatantly false.

We dissolve this problem by claiming that WUGS are not *ceteris paribus* laws, but characterizing generic generalizations (hence "generics"). Four arguments are presented. To begin with, WUGS and generics come with similar inferential commitments, such as licensing non-monotonic inferences and tolerating exceptions. Looking at the history of the *ceteris paribus* literature, we also see that this interpretation is a historical accident that stemmed from the desire to model economics upon the more secured sciences of the 19th century. We also argue that WUGS and generics sharing their syntactic forms should lead us to believe that they are the same type of generalizations. Finally, we compare the *ceteris paribus* and generics literature to find that WUGS and generics have been subject to similar theorization.

Once it is accepted that WUGS are generics, we present the cognitive approach to generics, which we think is best suited to account for scientific generics. We think that the first area in which the cognitive approach can be beneficial to the study of scientific generics is in the explanation of how scientists from different milieu can come to accept or reject different generalizations. We contend that this explanation should use a content-based semantics. We also believe that the focus of the cognitive approach on how we come to learn generics can help us understand how scientific generics are formed and what role they play in various inferences. Finally, we think that the cognitive approach is best suited to acknowledge the social dimension of generics learning, making it an asset to understand how adults come to learn generalizations through expert testimony.

FEDERICO CELLA

Vita-Salute San Raffaele University, Italy

Quantitative Generics — Saturday 17, 11:15

Abstract:

Generics are utterances that omit quantifiers and express general statements regarding categories or the elements belonging to them. These statements can be expressed using several syntactic forms: *bare plural* (e.g., "Neanderthals are extinct"), *definite singular* (e.g., "The leopard has spots"), and *indefinite singular* (e.g., "A duck lays eggs"). The semantics of generic statements is controversial, and calls for a different analysis compared to ordinary quantified statements. Based on the distinction proposed by Manfred Krifka (1987), generics can be categorized as *D-generics* (i.e., *Definite Generics*, which include utterances like "The tiger is widespread") and *I-generics* (i.e., *Indefinite Generics*, which include statements like "Sharks attack bathers"). These two categories can be distinguished depending on their possession (or lack) of the following features:

(a) Direct kind predication (Krikfa 1987),
(b) Tolerance to negative counterexamples (Leslie 2007, 2008),
(c) Default generalization (Gelman 2010; Leslie 2007, 2008)
and
(d) Indefinite singular form (Krifka 1987).

D-generics possess (a) because they ascribes properties to the kind in question. As a result, however, they lack (b) and (c). D-generics also lack (d), because the indefinite singular form cannot be used to express generalizations regarding categories (a statement like "A tiger is widespread" is infelicitous). On the contrary, I-generics lack (a), because they ascribe properties to the members of the kind in question. However, they possess (b): a mere lack of the ascribed property (a *negative* counterexample, even many) does not undermine the content of I-generics. Furthermore, they possess (c): the behaviour of I-generics seems to reflect the functioning of a primitive '*default mode of generalizing*' cognitive mechanism. Finally, I-generics possess (d), because the indefinite singular form can be used to express generalization regarding the members of a category (a statement like "A tiger is striped" is felicitous).

In this talk, I propose that D-generics and I-generics can be also distinguished by the possession (or lack) of the two following features:

(e) *Impossible integration of the quantifier* (*basic categories*)
and
(f) *Possible existential reading*.

I argue that D-generics referring to basic categories (i.e., sets of individuals) possess (e): as a statement like "Some tigers are widespread" shows, they cannot felicitously integrate a quantifier in their content. However, an utterance like "Some felines are widespread" is felicitous. This seems to show that D-generics lack this feature if the quantifier works on nonbasic categories (i.e., sets of categories). Furthermore, D-generics lack (f): they cannot receive an existential reading (i.e., to be interpreted as referring to

contextually salient individuals, see Krifka et al. 1995) because they refer to categories, and not to their members. On the contrary, I claim that I-generics lack (e); it is always possible to integrate a quantifier in their content (not necessarily *salva veritate*): two statements like "Ducks lay eggs" and "All Ducks lay eggs" are both felicitous. Furthermore, I-generics possess (e) – i.e., depending on the conversational context, they can receive an existential interpretation. A particular member belonging to the category *tiger*, if contextually salient, could inhibit the generic interpretation of an utterance like "The tiger is striped", receiving an existential interpretation instead.

Depending on the possession or the lack of the features (a)-(f) listed so far, it is possible to build a sort of "semantic profile" for D-generics and I-generics. This profile can be regarded as a set of possible parameters in order to classify a given generic in one of the two categories. However, I argue that some generic statements – e.g., "An even number is followed by an odd number", "The dog is a mammal" and "Generics omit quantifiers" – present a peculiar configuration of the identified parameters compared to both D-generics and I-generics, so that they should be classified in a third category. Let us call them *Quantitative generics*, or *Qgenerics*. Q-generics, I claim, possess (d) and (f), while lacking (a), (b), (c) and (e). In fact, these statements seem to ascribe properties to the members of the kind in question and without exceptions. Q-generics seem also to operate to a different level of characterization compared to I-generics: the former seem to refer to complex and abstract properties, whereas the latter seem to refer to experiential and qualitative features. The comprehension of Q-generics is cognitively demanding, and does not seem to reflect the functioning of a 'default mode of generalizing' cognitive mechanism. Furthermore, the indefinite singular form can be used to express Qgenerics, and it is always possible to integrate a quantifier in their content (the statements "A dog is a mammal" and "Some generics do not have a quantifier" are both felicitous). Finally, these statements can receive an existential interpretation: an even number and an odd number, if contextually salient, can inhibit the generic interpretation of an utterance like "The even number is greater than the odd number", receiving an existential interpretation instead.

The whole configuration of the Q-generics' "semantic profile" seems to endorse the hypothesis that these statements belong to a third and separated category. If so, the partition between D-generics and I-generics proposed by Krifka should be broadened to include Qgenerics. This revised classification, if correct, could open new perspectives in the semantic analysis of generics, but also in the study of the role of the linguistic constructions in abstraction and categorization processes.

HENRY SCHILLER

University of Texas at Austin, USA

Justifying Generalizations — Saturday 17, 13:30

Abstract:

In this paper I argue that generalizing inductive inferences provide doxastic justification for beliefs in generics, rather than beliefs in universal generalizations. I argue that this account supports, rather than undermines, a Bayesian account of inductive inference.

I begin by noting a plausible claim about the relationship between action and belief.

> (1) If a method of reasoning gives intuitive justification for some action, then the method of reasoning provides doxastic justification for a belief which justifies that action.

Claims of this kind can be found in much of the recent discussion surrounding knowledge-based accounts of rational action (Hawthorne & Stanley 2008, Fantl & McGrath 2002, 2009, Weisberg 2013). If we accept something like (1) then it seems as though we should at least sometimes be able to figure things out about what an agent believes on the basis of what she is justified in doing.

Keeping this in mind, I turn to a second claim, about the relationship between action and induction, which will be the focus of the present paper:

> (2) Agents are sometimes justified in acting on the basis of a generalizing inductive inference.

Generalizing inductive inferences are made when an agent forms a general belief about a group on the basis of an observation of some (but not all) of that group's members: every observed member of group F has the property G, and so you form a general belief about the members of F being G.

So, for an example of (2): all the Lincoln Towncars I have ever seen in New York City have been taxis. If I am stranded on Pelham Parkway in the rain and I see a Lincoln Towncar, I am plausibly justified in trying to hail it. This is not because I have seen this particular Lincoln Towncar before, it is because I have formed some general belief about Lincoln Towncars in New York, and my generalizing inductive inference provides doxastic justification for this belief.

Whatever belief I have about Lincoln Towncars, my evidence for it (observations that I have made of Lincoln Towncars) is compatible with there being Lincoln Towncars that are not taxis. On an *infallibilist* position famously attributed to Hume (1739/2000, 1748/1993), this should prompt us to reject inductive inferences as a form of reasoning. In the eyes of the Humean infallibilist, if there is any room for deductive uncertainty in our beliefs then they are not truly reasonable.

Most contemporary theorists have rejected the strict infallibilist position associated with Hume, and adopted what I will call the *traditional view*. This is the view that generalizing inferences lead to, and often justify, beliefs in universally quantified generalizations (universal generalizations for short).

> Traditional View
> Generalizing inductive inferences (about a class F having a property G) justify beliefs with a universally generalizable form: $\forall x(Fx \rightarrow Gx)$.

Universal generalizations are expressed by sentences like 'all robins are red', 'every human is mortal', and 'all

triangles are three-sided'. These sentences express propositions with a universal quantifier '∀' as the primary logical operator. A sentence like 'all robins are red' has as its logical form something like: ∀x(*robin(x)*→ *red(x)*).

I do not wish to defend infallibilism; but I still think that the traditional view is wrong. It is the aim of this paper to motivate interest in an alternative claim about the kind of beliefs that generalizing inductive inferences give us justification for. Specifically, I will argue for what I call the *generic view*:

> Generic View
> Generalizing inductive inferences (about a class F having a property G) justify beliefs with a generic logical form: Gen x [F(x)][G(x)].

I will argue for the intuitive plausibility of the generic view by (a) arguing that it aligns nicely with the specifics of inductive generalizing, and (b) offering further argument agains the traditional view, by way of showing some difficulty for seeing how universal generalizations could be justified on a typical account of how justification works.

When someone makes (and then acts on) a generalizing inference what typically happens is that she observes that some members of a group F has a property G, and on the basis of this observation concludes something about group F in general. As far as she knows there are unobserved members of group F; yet what she comes to believe is something that seems to in part be *about* members of the group F which are not observed (by virtue of being about F in general).

Based on this, we can identify two characteristic properties of generalizing inferences, which I will call *compatible* and *general*:

> **compatible** The evidence used in a generalizing inference is *compatible* with the feature observed in a group of Fs not holding for every F. Observing *n*-many Fs as having the property G is always compatible with some *n*+*x*-number F not having the property G (and the action taken with respect to the inference is taken in full view of this compatibility).
>
> **general** The belief justified by a generalizing inference is *general*: the belief that an agent comes to hold on the basis of her observation of a group of *n*-many Fs is a belief about all Fs, not just a belief about n-many Fs.

We can compare these characteristic features of generalizing inferences with features characteristic of universal generalizations and generics. On the traditional view, the object of your full belief when you make a generalizing inference is a universal generalization. Universal generalizations of the form ∀x(*Fx* → *Gx*) ('all Fs are G') satisfy **general** with respect to the group F. Universal generalizations are about members of the group F in general, predicating G of the entirety of that group. But universal generalizations do not satisfy **compatible**: the presence of a single member of group F which does not have property G is enough to make false the universal generalization ∀x(*Fx* → *Gx*).

On the generic view, the object of your full belief is a generic. A generic of the form 'Fs are G' satisfies **general** with respect to the members of F. The generic also satisfies the **compatible** property associated with generalizing inferences. Generics associating a group F with a property G are compatible with members of the group F not having G. Consider generics like 'dogs have four legs', or 'ravens are black' for example; these seem possible to assert and believe despite known counterexamples (three-legged dogs, albino ravens).

I also provide cases where the generic explanation can account for what is going on, but the traditional account cannot, and I will discuss why it is appropriate to talk about inductive evidence as making you justified in believing a generic.

RACHEL STERKEN

University of Oslo, Norway

Generics and Amplification — Saturday 17, 14:45

Abstract:

Although many details remain unclear and controversial, there is a growing consensus amongst theorists that generics are implicated in problematic patterns of thought and reasoning that lead to the acceptance of hasty and under-supported generalizations, and that this has the potential to lead to socially, politically and epistemically undesirable results. For example, Abelson and Kanouse (1996), and Cimpian, Brandone and Gelman (2010) found that generics are accepted based on little statistical evidence, and yet have powerful statistical implications. Still further, Cimpian and Erikson (2010), and Rhodes, Leslie and Tworek (2012) found that hearing generic language leads hearers to essentialize social kinds, providing support for claims that generics can have powerful modal implications (Gelman 2003, Haslanger 2011).

This paper investigates the question of whether or not there is any connection between these epistemological or cognitive features of generic thought and reasoning, and the semantic and communicative properties of generics. Are we prone to mistakes in reasoning about generics because of what and how generics mean? Can we learn more about our propensity to make mistakes with generics by thinking more about what and how generics mean? These questions are non-trivial first and foremost because what and how generics mean is highly controversial, but also because it is possible that generics themselves involve no linguistic or communicative failings, but only epistemological or cognitive ones (Saul, 2016): It is (arguably) an open theoretical possibility that generics have a straightforward minimalist semantics and that we are just bad at statistical reasoning and prone to essentialist reasoning.

Though this is a theoretical possibility, I argue that it is an implausible one: If we are to distinguish generics from explicitly quantified generalizations – to claim that they have a socially, politically and epistemically <u>special</u> or <u>distinctive</u> role – then this specialness or distinctiveness is a result of their semantic and communicative (representational) properties. In particular, I claim that the <u>underspecification</u> and <u>context-sensitivity</u> of generics is responsible for the problematic aspects of generic thought and talk. Only once these semantic and communicative properties of generics are appreciated can we fully glean the distinctiveness and extent of the social, political and epistemic issues generics potentially pose.

I will discuss two novel forms of problematic error which can arise because of the underspecification and context-sensitivity of *Gen*. The first I call <u>*social amplification*</u> and the second I call <u>*contextual-scope amplification*</u>.

Social amplification, I take to involve the phenomena of <u>*easy agreement*</u> or <u>*easy assent*</u>. Two or more subjects can (apparently) agree on or assent to a generic belief even in circumstances in which they would explicitly disagree over their estimates of prevalence and type of modal connection. For example: Subject A might estimate based on the generic – *cats reach the top of Mount Fuji* – that 75% of cats can reach the top of Mount Fuji, while subject B would estimate that 56% of cats would essentially reach the

top of Mount Fuji, provided they are normal. Arguably, the subjects might not explicitly agree on much. When their beliefs are in generic form, there is the illusion of collective agreement across the population of speakers. Social amplification results from an inflated sense that, collectively, we agree that a particular relationship holds between a kind and a property, when in fact there is not much agreement.

There might also be mistakes having to do with the contextual scope or range of a given generic. Context -sensitivity is a linguistic phenomenon whereby what content a sentence expresses is determined, at least in part, by the context in which it is used. If the way that the context determines content is complicated, or if it's hard for subjects to keep track of what context they're in, they'll be prone to error. *Might* claims, for example – e.g., *Bob might be guilty* – are plausibly context-sensitive – saying in a given context that it is compatible with the contextually relevant evidence that Bob is guilty. But it is not always obvious what evidence is contextually relevant, so subjects can misunderstand what the speaker is saying or believing when she says or believes that Bob might be guilty. We might for instance accept the claim that Bob might be guilty in a context where relatively little evidence is required to establish his guilt, and continue to accept it in contexts where much more is required to establish his guilt (Dever, p.c.). Here we have an amplification in the scope of the context (or range of contexts) for which we take the claim to be relevantly supported. On a view in which *Gen* is an indexical, such mistakes in contextual scope or range, may be problematic. Another way of cashing out such problems is in terms of *easy cross-contextual agreement or assent*: We have the illusion that our generic thoughts are the same (agree) across contexts, when in fact they may not.

REMERCIEMENTS

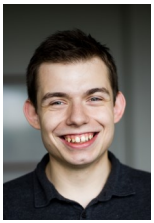
Nos remerciements vont à Gilles Beauchamp et Jérémie Dion pour l'aide qu'ils ont apportée lors de l'organisation de cet évènement, ainsi qu'à l'Université de Sherbrooke, au CIRST, au CRÉ et à Chaires de recherche du Canada pour leur appui financier.

ACKNOWLEDGEMENTS

Thanks to Gilles Beauchamp and Jérémie Dion for their invaluable help in the organization of this event. We also gladly acknowledge the financial support of the Université de Sherbrooke, the CIRST, the CRÉ and Canada Research Chairs.

ORGANISATEURS

François Claveau (Université de Sherbrooke)
Francois.Claveau@USherbrooke.ca
www.epistemopratique.org



Jordan Girard (Université du Québec à Montréal)
girard.jordan@courrier.uqam.ca

GENERIC GENERALIZATIONS — MEANING AND SOCIAL PRACTICES

Un atelier de la Chaire de recherche du Canada en épistémologie pratique
Workshop organized by the Canada Research Chair in Applied Epistemology

www.epistemopratique.org