‘You do it like this!’: Bare Impersonals as Indefinite Singular Generics

JAMES RAVI KIRKPATRICK[1,2] AND JOSHUA KNOBE[3]
[1]Faculty of Philosophy, University of Oxford, Woodstock Road, Oxford, OX2 6GG, UK
[2]Magdalen College, Oxford, OX1 4AU, UK
[3]Department of Philosophy, Yale University, New Haven, CT., USA

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Abstract: Sentences with impersonal pronouns, like *You do it like this*, seem to make both statistical and prescriptive claims, that a certain way of behaving is common and that it is prescriptively good. We argue that these kinds of sentences are closely related to another kind of sentence, namely, indefinite singular generics, like *A person does it like this*. We propose that there is a single underlying mechanism that allows both kinds of sentences to express mixed statistical/prescriptive readings. We then provide a compositional semantic analysis of these sentences and explain how, together with this single underlying mechanism, it accounts for this phenomenon.

1. Introduction

Imagine that you are trying to figure out how to use the coffee machine and you ask a coworker for some information. One way for her to respond would be by making a purely *statistical* claim. For example, she could say:

(1) People usually do it like this.

Another way for her to respond would be by making a purely *prescriptive* claim. For example:

(2) The best way to do it is like this.

But now suppose instead that she simply responds by using a sentence containing the impersonal pronoun *one*, as in (3a), or the more colloquial impersonal use of *you*, as in (3b).

(3) a. One does it like this.
b. You do it like this.

These sentences are puzzling. On the one hand, they seem to be making a statistical claim of some sort, saying that a certain way of behaving is frequent or common. Yet, on the other hand, they also seem to be making a prescriptive claim, saying that a certain way of behaving is good or right (Orvell, Kross & Gelman 2018, 2019). Our aim here is to develop a better understanding of the mix of statistical and prescriptive claims in sentences like these.

Our proposal is that these kinds of sentences give rise to a mix of statistical and prescriptive claims because of their close tie with another kind of sentence: indefinite singular generics. We propose that there is a single underlying mechanism that allows both kinds of sentences to express mixed statistical/prescriptive readings. We begin by characterizing the above phenomenon in detail, reviewing the background on indefinite singular generics, and sketching our analysis of impersonal uses of pronouns, such as those in (3). We then propose a semantic analysis of impersonal pronouns that, together with this single underlying mechanism, accounts for this phenomenon.

2. Bare Impersonals and Indefinite Singular Generics

2.1. The basic phenomenon

The study of impersonal uses of pronouns raises difficult questions both in syntax and semantics, but we will not attempt to provide a more general theory that addresses all of these questions nor will we provide a cross-linguistic comparison of the different forms that the impersonal takes across languages.[1] Instead, we will be focusing on a central and important use of sentences involving impersonal pronouns, namely, those that convey a mix of statistical and prescriptive information.

The target phenomenon under investigation concerns certain impersonal uses of pronouns that receive a statistical/prescriptive reading. In addition to the sentences in (3), consider the following sentences:

(4) a. In the UK, you drive on the left-hand side.
b. You remove your shoes to visit a Gurdwara.
c. This is how you write a philosophy paper.

Let us call sentences like (4) *bare impersonal sentences*, or *bare impersonals* for short.[2] These examples are naturally understood as making statistical and prescriptive claims about many unspecified subjects, rather than a specific subject, such as the speaker or her audience.

Existing research has already shown that sentences of this form convey both statistical and prescriptive claims. For example, in an important recent paper, Orvell, Kross, and Gelman (2018) show that even children use bare impersonals to communicate both statistical and prescriptive information. They find that children use generically-interpreted impersonal pronouns more frequently when trying to communicate both statistical norms (Experiment 1) and prescriptive norms (Experiment 2), as compared to when simply providing information that does not have to do with norms and is simply about their own preferences.[3]

The statistical/prescriptive reading is not always available for bare impersonals. For example, bare impersonals are subject to severe restrictions on which predicates they can take (Moltmann 2006: 264). With

[1] For recent work in linguistics on impersonal pronouns, see, a.o., Alonso-Ovalle (2000, 2002); Cabredo-Hofherr (2004, 2008); Chierchia (1995b); Kitagawa and Lehrer (1990); Kratzer (1997, 2009); Malamud (2006, 2012); Moltmann (2006, 2010a, 2010b); Orvell et al. (2017, 2018, 2019a, 2019b, 2020); Zobel (2014).
[2] More precisely, we are concerned with unembedded mono-clausal sentences that contain a generically interpreted impersonal pronoun without any other operators. We call these 'bare impersonal sentences' because they contain impersonal uses of pronouns that occur in unembedded contexts and without an explicit restrictor, rather than because of a lack of any overt determiner.
[3] See also Orvell Kross & Gelman (2017, 2019a, 2019b, 2020).

certain predicates, it is clear that the bare impersonals are both unacceptable and do not carry a mixed reading, as witnessed by the sentences in (5):

(5) a. ??One has a nose.
b. ??One lives in a big city.
c. ??One has at least one passport.
d. ??One has parents.
e. ??One breathes.

Furthermore, when impersonal uses of pronouns are embedded in certain contexts – such as when occurring as a bound variable (6), in the scope of a propositional attitude (7), in the scope of a modal (8), in an indicative conditional (9), or co-indexed with PRO (10) – they do not give rise to statistical/prescriptive readings:[4]

(6) Sometimes one forgets that one has a nose. (Moltmann 2010a: 447)
(7) One can doubt that one has a soul. (Moltmann 2010a: 447)
(8) One can see the picture from the entrance. (Moltmann 2006: 266)
(9) If one lives in a big city, one lives in a city. (Moltmann 2010a: 447)
(10) It is difficult PRO to dance while holding one's dog.

For example, (8) does not express a generalization that it is prescriptively good to be able to see the picture from the entrance nor does (9) express either that it is statistically prevalent or prescriptively good that if one lives in a big city, then one lives in a city

It is difficult to ascertain the conditions under which the statistical/prescriptive reading is triggered. One natural explanation of the contrast between the sentences in (4) and (5) might be that bare impersonals must occur with habitual predicates that express repeatable actions, and so in the absence of a habitual predicate, the statistical/prescriptive reading is unavailable. However, this explanation fails to predict the infelicity of (5e), which does contain an habitual predicate, as well as the the fact that we can also get the statistical/prescriptive reading in sentences that are not habituals, like in (11):[5]

(11) When you turn 13, you go through the traditional coming-of-age ritual.

Similarly, explanations that attempt to constrain the statistical/prescriptive reading to predicates involving action are also unlikely to succeed, since statistical/prescriptive readings also arise for sentences in which the subject of the sentence is the recipient or theme of an action, as in (12), and sentences in which the subject is an experiencer of an emotion, as in (13):

(12) On Christmas, you get presents.
(13) When your students succeed, you feel happy.

Any account of impersonal pronouns should explain this variety of data about when the statistical/prescriptive reading arises in bare impersonals and why it is unavailable in embedded contexts.

[4] Note that Moltmann uses these examples to make a different point, namely, that when impersonal pronouns are embedded in certain contexts, they do not place restrictions on what predicates they can take.
[5] Thanks to Veneeta Dayal for this point.

2.2. Indefinite singular generics

The function of bare impersonals is to express generalizations, rules, norms, and regulations about individuals with a common property. That is, they intuitively express generic generalizations. This is supported by the fact that bare impersonals exhibit two central properties of generic generalizations: (i) they are used to express generalizations, and (ii) they allow for exceptions to the generalizations. Given that our analysis treats bare impersonals as generic sentences – in particular, as indefinite singular generics – we will now review some relevant background information about generics.

Generic sentences express generalizations about what properties are characteristic of members of a given kind, as opposed to sentences which express statements about particular events or particular properties. While genericity can be expressed in a variety of ways, mono-clausal generic sentences with indefinite singular count nouns in subject position (or IS generics, for short) seem to express the same kind of statistical/prescriptive mixture as the bare impersonals surveyed above.

Consider, for example, sentence (14):

(14) A teacher helps her students.

This sentence clearly seems to be both statistical and prescriptive. Roughly speaking, it expresses the claim that it is both statistically frequent that teachers help their students and prescriptively good for them to do so.

The intuitions we find in simple cases like this one seem to be just one manifestation of a far broader phenomenon that arises also in cases of IS generics about entities that are not agents. For example, consider IS generics about biological functioning, like the following:

(15) A killer T cell kills virus-infected cells.

Since a killer T cell is not an agent, one might think that (15) cannot show the same prescriptivity found in sentences like (14). Still, there does seem to be some kind of prescriptivity at work here as well. The sentence seems to be saying not only that killer T cells usually do perform a certain function but also that they are *supposed to* perform this function, so that they would be deficient in some important respect if they failed to do so (see, e.g., Prasada and Dillingham 2006). An adequate theory of the prescriptivity of IS generics should help us understand not only the kind of prescriptivity we find in sentences involving agents (like (14)) but also the kind we find in sentences that do not involve agents (like (15)).

In this respect, IS generics differ from generics of other types. For example, suppose you want to express the claim that barns are generally red without also suggesting that it is prescriptively good for them to be red. You could express this claim using the bare plural generic (16a) but not using the IS generic (16b).

(16) a. Barns are red.
b. ?A barn is red.

While (16a) can be used to express the purely statistical claim that it just so happens that barns are frequently red, (16b) seems also to express the prescriptive claim that barns are *supposed* to be red.[6]

Importantly, however, IS generics are not always licensed when it is both statistically frequent and prescriptively good for members of a kind to have a particular property. For example, (17) seems bad, even if it is true that philosophy students generally have good taste in music and it is prescriptively good for them to have good taste in music.

(17) ?A philosophy student has good taste in music.

Intuitively, the issue seems to be that although philosophy students often have good taste in music, they don't have this type of taste *in virtue of* being philosophy students. Any adequate theory of IS generics will have to capture this fact as well.[7]

Theorists have proposed different ways of explaining the phenomena exhibited in (14)–(17). Broadly speaking, a key insight coming out of this literature is that the explanation involves some notion of a 'principled connection' between a property and a category (Prasada and Dillingham 2006) or of an object having a property 'in virtue of' being a member of a category (Greenberg 2003, 2004, 2007). Thus, consider an IS generic of the form *An F is G*. For this sentence to be true, it would not be enough just for it to be the case that the vast majority of Fs are Gs. It would have to be that something could be a G *because* it is an F or *in virtue of* being an F. As we will see below, existing research has led to the development of frameworks that make it possible to spell out this broad insight in more precise detail.

With this in mind, let us return to the question regarding the prescriptivity of indefinite singular generics. As we have seen, existing literature closely connects this prescriptivity with claims about kinds and about what holds of individual entities in virtue of being members of those kinds. For example, sentence (14) does seem to be saying something prescriptive, but the prescriptive claim it is conveying cannot simply be paraphrased with a sentence like: If a person is a teacher, then that person ought to help her students. Rather, the prescriptive claim here has to be understood as saying something that is very closely tied to being a teacher. Putting this point at a rough intuitive level, one might paraphrase the claim by saying something like: helping one's students is part of the prescriptive ideal of being a teacher. Or perhaps: teachers should help their students *in virtue of* the fact that they are teachers.

This point comes out especially clearly in cases where the ideals associated with the kind are themselves controversial. For example, (18) clearly does not mean that if a person is a liberal, then this person should fight for progressive taxation.

(18) A liberal fights for progressive taxation.

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[6] This point also applies to so-called 'normative generics', i.e., generics that express claims about social kinds. Theorists have observed that people often use bare plural generics like 'Boys don't cry' to express normative generalisations about what boys should do, even though it is common knowledge that most boys do cry. Contrastingly, the IS equivalent '?A boy doesn't cry' is infelicitous against these background assumptions, which would explain why such generics receive little discussion in the literature on normative generics; see, e.g., Haslanger (2014) and Wodak et al. (2015).

[7] Some theorists have noted that the 'in virtue of' reading is not, strictly speaking, required of IS generics. For example, the sentence *A refrigerator costs $1000 in Europe* does not claim refrigerators cost $1000 in Europe in virtue of being refrigerators in Europe; cf. Mari et al. 2013: 72. Nevertheless, IS generics occur mainly with an 'in virtue of' reading.

Instead, it seems to say that fighting for progressive taxation is part of the prescriptive ideal of being a liberal, or perhaps that liberals should fight for progressive taxation *in virtue of* being liberals. These are claims that could be accepted even by people who are themselves conservatives and who believe that, all things considered, it would be wrong to fight for progressive taxation.

Although recent research has given us valuable new insights into the prescriptivity of IS generics, this phenomenon is still not well understood. In the present paper, we will not be providing a complete account of IS generics more broadly, and we will therefore not be providing an answer to the question of how best to characterize their prescriptivity. Rather, our inquiry is aimed very specifically at understanding the relationship between bare impersonals and IS generics. A running theme throughout the paper will be that it is possible to figure out whether the prescriptivity of bare impersonals is related to the prescriptivity of IS generics even if our understanding of the prescriptivity of IS generics itself remains incomplete.

2.3 Sketching the proposal

We will be developing an analysis of bare impersonals that emphasizes their close connection to IS generics. But before we get into the details of the analysis, it might be helpful to say a few words about the broader vision that the detailed analysis aims to implement.

To begin with, consider the IS generics in (19) and the bare impersonal (20).

(19) a. A trained barista makes coffee like this.
b. An Israeli makes coffee like this.
c. A person makes coffee like this.

(20) You make coffee like this.

At the core of our hypothesis is the idea that there is a deep connection between IS generics like (19) and bare impersonals like (20). In particular, we will be arguing that they show the same basic mixture of the statistical and the prescriptive.

But then, if bare impersonals and IS generics both show this distinctive statistical/prescriptive mixture, what is the difference between them? Our suggestion will be that bare impersonals are closely related to IS generics, except that they abstract away from any information about specific kinds of entities. For example, the claim will be that the bare impersonal (20) is closely related to the indefinite singulars in (19), except that it asserts something about a type of action while abstracting away from questions about which kind of entity is performing that action. That is, this sentence is not saying something about how a trained barista makes coffee, or how an Israeli makes coffee, or even how a person makes coffee. Rather, it abstracts away from information about any specific kind of entity and simply says something about *making coffee as such*.

As we noted above, existing research on IS generics has explored the notion of a principled connection and the ways in which this notion involves one thing holding 'in virtue of' another. Our account of bare impersonals makes use of this very same notion, but we will be applying it to things of a fundamentally different type. The idea is that a bare impersonal like (20) does not make a claim about what holds of

something in virtue of it being a member of a kind (trained baristas, Israelis, people). Rather, this sentence still makes use of the notion of a principled connection, but it abstracts away from any information about entities and the kinds of which they are members. It says something about what holds of an act of making coffee just in virtue of it being an act of making coffee.

3. Bare Impersonals as Indefinite Singular Generics

We will now provide an analysis of bare impersonals that explains this pattern of judgments. Our core claim is that bare impersonals behave so similarly to IS generics because they actually *are* IS generics and their differences are explained by the semantic contribution of the impersonal pronoun.

Our theory consists of two formal components. The first concerns the overall structure of bare impersonal pronoun sentences: following the literature on impersonal pronouns, we propose that such sentences are essentially generic generalizations that involve a covert generic operator *Gen*. The second concerns the semantic contribution of the impersonal pronoun: we propose that impersonal pronouns are essentially indefinite descriptions. The central difference between bare impersonals and other indefinite singular generics is that the semantic contribution of the impersonal pronoun allows us to make generalizations without referring to any specific kind, such as people, teachers, killer T cells, and so on. That is, impersonal pronouns allow us to talk about those beings that count as relevantly non-exceptional individuals for the generalization, but without using explicit properties to identify those individuals.

In the rest of this section, we flesh out these two ideas. We begin by giving a brief intuitive characterization of situation semantics, the framework in which our theory is couched; we then outline how the notion of principled connections relates to statistical and prescriptive claims and generalize this account to situations; we then give an explanation of indefinite singular generics and how the notion of a principled connection might be encoded in the generic operator; lastly we spell out the treatment of impersonal pronouns as indefinite descriptions. In the next section, we bring these two ideas together and elaborate on the statistical/prescriptive readings in bare impersonals.

3.1. Situation Semantics: The Basics

Our semantic analysis makes essential use of the notion of a *situation*. The particular system we will use is based closely on the work of Kratzer (1989, 2010), in which a situation is understood as a part of a possible world. We may think of a situation as consisting of one or more individuals having one or more properties or standing in one or more relations at a particular spatiotemporal location. For example, there is a situation containing just you instantiating the property of reading this paper (at a certain time). A situation is the type of thing of which a *proposition* can be true, where a proposition is modelled as a function that maps a situation, when defined for that situation, to either the True or the False (1 or 0, for short). For example, the sentence "You are reading this paper" is true at the aforementioned situation. Situations are also related by the reflexive mereological parthood relation $\preccurlyeq$; read as 'is part of'. We say that a situation s' is an *extension* of s just in case $s \preccurlyeq s'$, that is, just in case s' contains all the individuals, properties, and relations that s does (and possibly more). For example, the situation which contains just you reading this paper can be extended to a situation which contains just you reading this paper and drinking coffee. Following Kratzer (1989), we assume propositions are *persistent*: for any proposition p, if $p(s) = 1$, then for any situation s' such that $s \preccurlyeq s'$, $p(s') = 1$.

Given a proposition p, a *minimal situation* s such that p(s) = 1 is a situation which contains the smallest number of individuals, properties, and relations that will make p true. For example, a minimal situation in which a certain horse has four legs contains just that horse plus its instantiating the property of having four legs; no further individuals, properties, or relations are present.

Our semantic analysis for generics is framed in terms of (the characteristic functions of) sets of situations. For example, according to our account, the indefinite singular generic 'A horse has four legs' should be understood as making a generalization about a certain set of situations, namely, the set of situations that include a horse instantiating the property of having an indefinite number of legs. Now, when one considers simple examples like this one, it might seem that we could just have framed the semantics in terms of possible individuals instead of possible situations. That is, rather than thinking in terms of generalizations over certain situations that contain a horse, we could simply think in terms of generalizations over horses. As we will see, however, the use of situation semantics plays a crucial role in the way we generalize the theory to the case of bare impersonals. Take a sentence like 'You make coffee like this'. We will argue that this sentence is not best understood as saying something about a set of entities, but rather as saying something about a set of situations. It is not saying anything about a particular type of entity; it is saying something about making coffee as such, that is, about situations that include making coffee and nothing else.

3.2. Principled Connections

Let us now turn to the notion of principled connection and the question of how there can be principled connections between different kinds of situations. To understand the notion of a principled connection, we will need to invoke the idea that entities have certain properties 'in virtue of' belonging to certain kinds. That is, we will be invoking the idea that there are certain properties that horses can have in virtue of being horses, certain properties that teachers can have in virtue of being teachers, and so forth.

As we noted in §2, existing research suggests that these notions play an important role in indefinite singular generics and has also led to a number of more specific proposals about how to understand this notion, including the hypotheses that it is connected to psychological essentialism (Gelman 2003), that it is connected to the way our conceptual systems represent explanatory structures (Prasada and Dillingham 2006; 2009), that it is connected with 'characteristic values' in the sense relevant to dual character concepts (Leslie 2015; Neufeld 2020; Newman & Knobe 2019; although see Hesni 2021), and that it is connected to norms, stereotypes, and other background knowledge about the kind in question (Greenberg 2003; 2004; 2007). In what follows, we will not attempt to decide between these different proposals. Instead, we draw on that existing research by explaining how it can be applied to think about principled connections between situations. Before we get into that, though, we will need to say a little bit more about what a principled connection is and how it can be used to understand why indefinite singular generics communicate both statistical and prescriptive claims.

As we noted above, two important facts about indefinite singular generic are (a) that they seem to communicate statistical claims and (b) that they seem to communicate prescriptive claims. A core assumption of the present account is that principled connections explain both of those facts. In other words, in the theory we will be providing, there will not be one thing within the semantics that explains the statistical claims and then another that explains the prescriptive claims. Principled connections are supposed to explain both.

First, consider the way in which indefinite singular generics communicate statistical claims. Take a sentence like:

(21) A horse has four legs.

This sentence seems to communicate information about how many legs horses typically have. But why? On the view we are developing, the answer is not that there is something built into that semantics of (21) that makes it convey a statistical claim. Rather, what this sentence directly says is something about the nature of horses, or about the properties horses have in virtue of being horses. The fact that the sentence is seen as communicating a statistical claim is then to be understood in terms of certain facts about what people tend to infer from what the sentence directly says.

So, for example, if people observe that almost all horses have four legs, they may infer that there is something in the very nature of horses that makes them tend to have four legs, i.e., that horses have four legs in virtue of being horses. Thus, believing a certain sort of statistical claim will generally make people more inclined to believe that (21) is true. Then, conversely, if people believe that it is in the nature of horses to have four legs, they may infer that horses frequently have four legs. Thus, believing that (21) is true might generally lead people to accept a statistical claim. But note that the theory we will be developing does not proceed by adding anything to the semantic clause of any constituent to guarantee that the sentence as a whole will communicate this statistical claim. Instead, the semantics simply says that the sentence communicates an in-virtue-of claim (roughly, a claim about the properties horses have in virtue of being horses), and the idea is then that it is a psychological fact about human beings that they tend to infer from this to a claim about what properties it is statistically frequent for horses to have.

Similar points apply to the way IS generics convey prescriptive claims. Take the sentence:

(22) A teacher tries to help her students.

This sentence seems to convey a certain claim about the ideal of being a teacher. But why? Here again, on the view we will be developing, the answer is not that there is something built into the semantics of (22) that makes it prescriptive. Rather, what the sentence directly says is something about the nature of teachers, or what teachers do in virtue of being teachers. Then, to see why it is seen as communicating a prescriptive claim, one would want to have a better understanding of why people ascribe a prescriptive significance to facts about the nature of teachers. Existing research has led to the development of various different theories aimed at answering this question (e.g., Gelman & Rhodes, 2012; Neufeld 2020; Newman & Knobe 2019; Prasada and Dillingham 2006; 2009), but these theories are not best understood as attempts to work out the semantic value of any constituent of (22).

So far, we have focused specifically on how individuals have certain properties in virtue of what kind of thing they are. But now consider sentences like (23) in which no particular kind of individual is made apparent:

(23) In the UK, you drive on the left.

On an impersonal reading, this sentence seems to communicate information about which side of the road is typically driven on and which side of the road ought to be driven on in the UK. But, unlike (21) and (22), (23)

seems to generalize away from any particular kind of individual driving in the UK and instead seems to make a claim about driving in the UK as such. The problem is that an account of principled connection that makes reference only to kinds of individuals cannot explain how sentences like (23) seem to communicate statistical and prescriptive claims.

On the view that we are developing, these similarities and differences are accommodated by generalizing the core idea about principled connections to situations more generally. That is, rather than supposing that only *individuals* have certain properties in virtue of their kind membership, we believe that *situations* also have certain properties in virtue of being a certain kind of situation. This generalization encompasses the observation about individuals, since the situations that contain those individuals instantiating those properties are as such *in virtue of* their being a certain kind of situation, namely, one that contains individuals of a certain kind. But, moreover, the generalization also allows us to talk about properties that obtain in virtue of considerations over and above kind membership.

With this background, we are now in a position to understand the semantics for indefinite singular generics and impersonal pronouns that we will be adopting.

3.3. Indefinite Singular Generics

The standard view about generic sentences is that their Logical Forms have a tripartite quantificational structure that involves a phonologically null generic operator called *Gen*. Following Krifka et al. (1995), we will treat the generic operator *Gen* as a covert adverb of quantification, and since our analysis is couched in situation semantics, we will treat it as denoting a generalized quantifier over situations, that is, a relation between sets of situations. More specifically, we will make the following assumptions about its analysis:[8]

i. Gen is adjoined to its restrictive part RES to form a restricted quantifier [Gen RES], whose intuitive interpretation relative to a situation s is "for every contextually salient situation s' such that s' has the property expressed by RES, there exists a situation s" such that s' is a part of s" and … s"…".

ii. The restricted quantifier [Gen RES] combines with its matrix SCOPE to form a predicate of situations [[Gen RES] SCOPE], whose intuitive interpretation is "to be a minimal situation s_0 such that for every contextually salient situation s' such that s' has the property expressed by RES, there exists a situation s" such that s' is a part of s" and s" has the property expressed by SCOPE".

iii. When the restrictive part RES is phonologically absent, such as in the sentence "A horse has four legs", the covert restriction is represented by a contextual variable C, a predicative variable of type <s,t>, whose value depends on the focus semantic value (FSV) of the sentence as construed without the adverbial quantifier (Rooth 1985, 1992), together with contextual information.[9]

[8] Here we follow Berman's (1987) treatment of adverbs of quantification; see, also, von Fintel (2004), Heim (1990), and Elbourne (2005; 2013). For a related analysis of genericity, see Kirkpatrick (2023). This treatment contrasts with the more familiar treatment of Q-adverbs as 'unselective binders', that is, quantifiers over any free variable in its scope (cf. Lewis 1975; Heim 1982, Krifka et al. 1995).

[9] Many factors contribute to fixing the value of this context variable, such as questions-under-discussion, focus structure and prosody, topic-comment structure, and contextually salient alternatives to the semantic contribution of the predicate, which further restricts the domain of quantification (see, a.o., Chierchia 1995a; Cohen 1997; von Fintel 2004; Krifka 1995).

Thus, the general logical form of generic sentences is as follows:

(24) [[Gen RES] SCOPE]

where RES and SCOPE denote functions of type <s,t> and *Gen* denotes a function of type <st,<st,st>>.

It will be useful for present purposes to treat *Gen* as a modal in the sense of Kratzer (1977, 1981, 1991). That is, *Gen* is treated as denoting a generalized quantifier over situations and is interpreted relative to two *conversational backgrounds*, which will be taken to be functions mapping situations to sets of propositions. The first conversation background, the *modal base*, determines the set of accessible situations by tracking information that is taken for granted or presupposed in the context, such as the actual available evidence, the intentional content of sources of information, and so on. The second conversational background, the *ordering source*, is used to rank situations according to how close they come to some set of ideals. Together, these conversational backgrounds determine the contextually salient situations over which the generic operator *Gen* quantifies.

Differences between indefinite singular generics and bare plural generics can be captured by imposing constraints on the kinds of conversational backgrounds that figure in their respective semantic analyses.[10] In particular, recall that IS generics seem to express that a principled connection holds between members of the kind and the property in question, whereas BP generics do not always communicate this connection. This can be captured by the sensitivity of the generic operator to certain contextual parameters, as well as to whether the sentence under evaluation is an IS or BP generic. More specifically, the conversational backgrounds for IS generics may directly encode a requirement that a principled connection holds between members of the kind and the property in question, while the conversational backgrounds that are available for the evaluation of BP generics are less restrictive.

For IS generics, then, we assume that the space of relevant situations is constrained by the conversational backgrounds to those situations that agree with the propositions in the modal base and that have the properties that follow in virtue of being restrictor situations. To formally encode these constraints, let MB and OS represent the modal base and ordering source, respectively, taken as functions from situations to sets of propositions, and furthermore let us introduce the schematic notion of an 'in-virtue-of' property S that models the notion of a 'principled connection' in the ways that were introduced above. We propose that the ordering source for an IS generic contains a proposition that is true of all and only those situations that have the 'in-virtue-of' property S^c associated with the restrictor denotation $[\![RES]\!]$ of the IS generic relative to the context of utterance c, namely:

(25) $\lambda s : [\![RES]\!]^g(s) = 1 \,.\, S^c(s) = 1.$

[10] Other explanations of the differences between bare plural and indefinite singular generics have been proposed. For example, Cohen (2001) argues that bare plural generics are ambiguous between two readings – one on which they express a claim about how things are, and which involves quantification at the level of logical form, and another reading on which they refer to a rule, regulation, or definition, and states that it is in effect – while indefinite singular generics only have the second reading. See also van Rooij and Schulz (2020), who provide a causal semantic analysis of indefinite singular generics that they relate to a probabilistic semantics of bare plural generics.

We will then use the ordering source to rank the situations in the modal base in accordance with whether they satisfy the propositions in the ordering source, including the in-virtue-of proposition. This is done in the usual way by constructing the 'best' situations relative to MB(s) and OS(s) as follows:

(26) $\mathrm{BEST}(\mathrm{MB}(s), \mathrm{OS}(s)) := \{s' \in \cap\mathrm{MB}(s) : \text{for all } s'' \in \cap\mathrm{MB}(s), s' \leq_{\mathrm{OS}(s)} s''\}$,

where $s' \leq_{\mathrm{OS}(s)} s''$ just in case there is no $p \in \mathrm{OS}(s)$ such that $p(s'') = 1$ and $p(s') = 0$. Thus the situations that the generic will be quantifying over — the 'best' situations — will be those that have the in-virtue-of property relevant to its restrictor.

According to this proposal, the statistical/prescriptive quality of IS generics is essentially hardwired into this in-virtue-of property. As we outlined in the previous section, there are different ways to understand this notion, but we are not trying to shed any new light on this debate. Furthermore, we are not trying to explain the notion of principled connection in our compositional semantics by further decomposing the in-virtue-of property, although we are also not precluding this as a possibility. Instead, our contribution is rather to show how this very same property can be at work in the most straightforward cases of indefinite singular generics and also with our bare impersonals. Further work could try to clarify how the notion of principled connection would be spelled out further within the compositional semantics itself, while another approach would be to say that it is explained by something in our psychology.

To see how this semantic proposal works, suppose that we are talking about coffee and someone says (27a) with a simplified LF in (27b):

(27) a. A person does it like this.
b. [[Gen C] a person does it like this]

To calculate the truth-conditions for (27a), we must specify a lexical entry for *Gen* that captures the informal remarks that we made above, which we state in (28):

(28) $[\![\mathrm{Gen}]\!]^{g,c} = \lambda p_{<s,t>}.\lambda q_{<s,t>}.\lambda s.$for every minimal situation s' in BEST(MB(s), OS(s)) such that $p(s') = 1$, there is a minimal situation s'' such that $s' \preccurlyeq s''$ and and $q(s'') = 1$

The denotation of *Gen* then combines with the value of C assigned by the context. The value of C will often be constructed on the fly by the audience, depending on a range of contextual factors such as the question under discussion. However, for concreteness, we will assume that its value depends on the focus semantic value (FSV) of the sentence, that is, the set of propositions formed by replacing the focused constituent with any of a salient set of elements of the same semantic type. Let us assume that the following focal structure for (27a):

(29) A person does it like THIS_f.

Since *this* is the focused constituent of (29), the FSV would be the set of propositions formed by replacing *this* with other demonstratives that denote alternative ways of making coffee. We will leave it vague and unspecified how the alternatives for some property are determined in a context, since they are often obvious

and intuitive. The interpretation of the contextual variable will then involve the union/disjunction of propositions in the FSV. In precise terms:

(30) $[\![\text{A person does it like THIS}_f]\!]_r^g = \lambda s.$ there is a person x in s such that there is some way $w \in \text{ALT}([\![\text{this}]\!]^g, c_s)$ and x makes coffee like w in s,

where 'ALT($[\![\text{this}]\!]^g$, s)' is shorthand for the set of values of the various focus alternatives of *this* relative to the context situation c_s (e.g., a using-an-Aeropress way, a using-V60 way, a using-a-French-press way, etc.). As usual, the set includes $[\![\text{this}]\!]^g$.

To calculate the semantic value of the matrix, we assume for concreteness that indefinite determiners denote functions of semantic type <<e,st>,<<e,st>,st>>, nouns denote functions of semantic type <e,<s,t>>, and indefinite NPs denote functions of semantic type <<e,st>,st>, as captured by the lexical entries in (31) and (32):

(31) $[\![\text{person}]\!]^{g,c} = \lambda x.\lambda s.$x is a person in s

(32) $[\![\text{a}]\!]^{g,c} = \lambda f_{<e,st>}.\lambda g_{<e,st>}.\lambda s.$ there is an individual x and a situation s' such that s' is a minimal situation such that $s' \preccurlyeq s$ and $f(x)(s') = 1$, such that there is a situation s" such that s" is a minimal situation such that $s' \preccurlyeq s''$ and $s'' \preccurlyeq s$ and $g(x)(s'') = 1$

These entries combine with the abbreviation in (33) to produce the (abbreviated) matrix denotation in (34):

(33) $[\![\text{does it like this}]\!]^{g,c} = \lambda x.\lambda s.$x does it like this in s

(34) $[\![\text{a person does it like this}]\!]^{g,c} = \lambda s.$there is a person and they make coffee like this in s

Finally, the denotation of [Gen C] combines with the matrix denotation in (34) to yield the (abbreviated) truth-conditions in (35):[11]

(35) $\lambda s.$for every minimal situation s' in BEST(MB(s), OS(s)) such that there is a person x in s' such that there is some way $w \in \text{ALT}([\![\text{this}]\!]^g, s)$ and x makes coffee like w in s', there is a minimal situation s" such that $s' \preccurlyeq s''$ and x makes coffee like this in s".

Given that the IS generic (27a) requires the situations s' in BEST(MB(s), OS(s)) to be situations that have the properties that follow in virtue of their being restrictor situations, (27a) is true at a situation iff in every

[11] Following von Fintel (1994), we assume scope situations are minimal extensions of restrictor situations that make both the restrictor and matrix true. This guarantees that any person involved in a minimal restrictor situation will be the only person involved in the scope situations. This is because each restrictor situation is specified as a minimal situation in which a person makes coffee in some way or another, and these are minimally extended to a scope situation in which a person makes coffee like this. Given persistence, the scope situation contains all the information that the restrictor situation does, as well as exactly how the person makes coffee. And since each scope situation is a minimal extension of a restrictor situation, it is guaranteed that only the person who is part of the restrictor situation will be part of the scope situation. See Hinterwimmer and Schueler (2015) for further discussion, particularly about difficulties concerning bi-clausal sentences that are outside the scope of this paper.

relevantly accessible situation in which a person makes coffee in some way or other and has the properties that follow from being a person making coffee in some way, they make coffee like this.

These truth-conditions seem to adequately capture the principled connection between members of kinds and properties that IS generics seem to express.

3.3. Impersonal Pronouns as Indefinite Descriptions

Our proposal is that bare impersonals are indefinite singular generics. One argument for this proposal, as we shall argue in the following section, is that analysing bare impersonal as indefinite singular generics explains why bare impersonals give rise to the specific mixed statistical/prescriptive readings we have observed. But we can immediately appreciate the appeal of this proposal by observing that bare impersonal uses of pronouns are both indefinite — in the sense that such uses are not ordinarily construed as referring to some particular and determinate entity or group of entities — and singular — in the sense of grammatical number.

Another argument that bare impersonals are indefinite singular generics, and not plural generics, comes from languages that obligatorily mark the difference between singular and plural pronouns, such as Norwegian, Dutch, and German. For if impersonal uses of *you* were in fact plural, one might expect them to be plurally marked in those languages. But in Norwegian the second-personal pronoun *du/dere* 'you' only has an impersonal generic reading in its singular form. For example, suppose you are instructing a group on how to use the coffee machine. You could do so by using the second person plural pronoun, as in *dere lager kaffe ved å x, y, z, siden det er slik en bruker denne maskinen* 'You-pl make coffee by x, y, z, since that's how one operates this machine', but here the first clause does not have a generic reading; *dere* 'you-pl' refers specifically to the group one is instructing. Instead, if you want to speak about how things are done in general, the plural wouldn't be used at all; here the singular *du* 'you' or *man/en* 'one' gives the prescription, just like *en lærling* 'an apprentice' lays out norms of that role.[12] (Similar observations hold for Dutch and German.) Given, then, that generic readings of the second person pronoun require the singular form in languages that obligatorily mark for the singular and plural, this strongly suggests that bare impersonals are singular. When combined with the observation that generic uses of pronouns do make reference to some particular or determinate entity or group, this strongly suggests that bare impersonals are indefinite singulars.

We now turn to our treatment of impersonal pronouns. There is no consensus on how impersonal pronouns are best formally modelled, although the vast majority of proposed analyses model impersonal pronouns after indefinite noun phrases (see, for example, Condoravdi 1989; Chierchia 1995b; Alonso-Ovalle 2000, 2002; Malamud 2006, 2012; Moltmann 2006, 2010a; Zobel 2014). As we have seen, the behavior of bare impersonals patterns closely with indefinite singular generics, and so we will analyze impersonal pronouns as indefinite descriptions.[13] This proposal can be implemented in many ways, but for present purposes, we will follow the insightful approach taken in Zobel (2014) of adopting Nunberg's 1993 analysis of pronouns, as

[12] One could also use *en* 'one', which is used interchangeably with man one, as in *slik lager en kaffe* 'One makes coffee like this'. Arguably, the gradual encroachment of *du* is from English: the Germanic *man* is losing ground to the Anglo *du*.
[13] The literature on pronouns diverges in its treatment of personal and impersonal pronouns. While impersonal pronouns overwhelmingly receive an indefinite analysis, the prominent analysis of personal pronouns is as definite descriptions (e.g., Elbourne 2005). We wish to remain neutral about whether a unified semantics should be provided for personal and impersonal pronouns, although we believe that the current proposal can mimic a semantic analysis of personal pronouns as definite descriptions. A more in-depth treatment of this (in)definiteness problem is beyond the scope of this paper.

developed by Elbourne (2008).[14] As we shall see, our proposal differs from Zobel's in treating impersonal pronouns as contributing a generalised quantifier to the truth-conditions of sentences in which they contain, rather than as Heimian indefinites (i.e., variables) which get generically or existentially bound by an operation like existential closure.

According to Nunberg (1993), the semantics of pronouns have the following four elements:

1. A *deictic component*: this picks out a contextually salient index on the basis of which the interpretation of the indexical will be computed.
2. A *relational component*: this constrains the relation that must hold between the index and the interpretation.
3. A *classificatory component*: this includes things like φ-features and other information about the interpretation.
4. An *interpretation*: this is an individual or definite description that contributes to the proposition expressed

To illustrate the theory, consider the case of the personal pronoun *I*: the deictic component of *I* picks out the speaker; the classificatory component ensures that the interpretation is singular and animate; and the relational component specifies that the interpretation must a singular individual who is identical to the index or a description whose actual instantiation is identical to the index. The personal uses of the pronoun *we* work in a similar way except the classificatory component ensures that the interpretation is plural and animate and the relational component specifies that the interpretation must either be a plural individual of which the index is a part or a description whose actual instantiation has the index as a part.

Following Elbourne (2008), we formalize Nunberg's (1993) theory by positing the deictic and relational components as items in the syntax. The structure of the pronoun *you*, for example, will be as in (36):

(36) [you [R i]]

In this structure, i is a variable of type e constituting the deictic component, and so its value will be the index, in Nunberg's terms. The relational variable R is of functional type <e, <e, st>> constituting the relational component. The role of R is to map the value of i to a function of type <e, st>, which is the type of NPs in our framework. The pronoun *you*, then, will be an indefinite article. While pronouns also bear information about φ-features, which can be written into the denotation as presuppositions (Cooper 1983; Heim & Kratzer 1998), we abstract away from this. Thus, *you* and other pronouns will mean the same as *a/some*:

(37) $[\![\text{you}]\!]^{g,c} = \lambda f_{<e,st>}.\lambda g_{<e,st>}.\lambda s.$ there is an individual x and a situation s' such that s' is a minimal situation such that s' $\preccurlyeq$ s and f(x)(s') = 1, such that there is a situation s'' such that s'' is a minimal situation such that s' $\preccurlyeq$ s'' and s'' $\preccurlyeq$ s and g(x)(s'') = 1

[14] For an alternative treatment of impersonal pronouns in terms of conventional implicatures, see Zobel (2014: Chapter 4).

The semantic contribution of pronouns depends on the specific values of R and i. For example, the value for i is the speaker in c, i.e., c_S, in the case of *one* and *we*, the addressee(s) in c, i.e., c_A, in the case of *you*.[15]

Now the key claim is that impersonal pronouns allow us to talk and make generalizations about what we will call 'abstract agents', that is, agents who are broadly speaking like us, but in abstraction from any specific property about what such agents are like, including whether they are human beings. The intuitive idea here is that when a speaker makes a generalization about her own or her audience's experiences, she must abstract away from the particularities of her and her audience's personhood and experiences. In particular, she must abstract away and focus on those individuals who count as relevantly non-exceptional individuals for the generalization. The idea is that the nominal description that impersonal pronouns contribute allows us to talk about what such individuals like us do without specifying any other property of those individuals except that they are relevantly like us. To make this rough idea formally precise, let $\approx_s$ be a ternary symbol relating two individual variables relative to a situation variable (read '$x \approx_s y$' as 'x is approximately alike to y at s').[16] Then the value of R in impersonal uses of pronouns will be as follows:

(38) $\lambda y_e.\lambda x_e.\lambda s.\ x \approx_s y$

Difficult questions remain about how to spell out in more detail the notions of agents being "relevantly like us" and "approximately alike." One intriguing possibility is that we might be able to understand these notions by drawing on Moltmann's (2006, 2010a) account of 'identifying with' or 'simulating' other people. This is an important topic for further research.

Thus, putting these components together, the impersonal use of *you* in (36) will be interpreted as follows:

(39) $[\![\text{[you [R i]]}]\!]^{g,c}$
$= [\![\text{you}]\!]^{g,c}([\![\text{R}]\!]^{g,c}([\![\text{i}]\!]^{g,c}))$
$= \lambda g_{<e,st>}.\lambda s.$ there is an individual x and a situation s' such that s' is a minimal situation such that $s' \preccurlyeq s$ and $c_A \approx_s x$, such that there is a situation s" such that s" is a minimal situation such that $s' \preccurlyeq s''$ and $s'' \preccurlyeq s$ and $g(x)(s'') = 1$

We are now in a position to see how this account of pronouns combines with the account of generics previously introduced. To see how this idea works, consider sentence (40a) with the simplified syntactic structure in (40b):

(40) a. You do it like THIS_f.
b. [[Gen C] you do it like THIS_f]

Supposing that (40a) is uttered in a context in which someone is trying to figure out how to make coffee, we again assume that the contextual restriction C will be determined by the FSV of the sentence as in (41):

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[15] The difference between singular pronouns like *I* and plural pronouns like *we* is captured by the value of the relational variable: for singular personal pronouns, the value of R is the identity relation; for plural pronouns, the value of R is the parthood relation. Thus, *we* denotes the generalized quantifier ranging over plural individuals of which the speaker is a part. We follow Link (1983) in supposing the plural pronouns denote plural individuals, individuals that have other individuals as parts.

[16] Note that $\approx_s$ is not a symmetric relation, despite its symbolisation.

(41) $[\![\text{You do it like THIS}_f]\!]^{F,g}$ = λs. there is some x such that $c_A \approx_s x$ and there is some way w ∈ ALT($[\![\text{this}]\!]^g$, c_s) such that x makes coffee like w in s

Then, given the interpretation of the pronoun in (39), the value of the matrix will be calculated analogously to (34). And given that the contextual variable receives the semantic value in (42), (40a) will have the semantic value in (42):

(42) λs. for every minimal situation s' in BEST(MB(s), OS(s)) such that there is some x such that $c_A \approx_{s'} x$ and there is some way w ∈ ALT($[\![\text{this}]\!]^g$, s) such that x makes coffee like w in s', there is a minimal situation s'' such that s' ≼ s'' and x such that $c_A \approx_{s''} x$ and x makes coffee like this in s''.

Together with our account of principled connection, these truth-conditions capture the fact that (37a) expresses a generalization that abstracts away from anything about being a person in particular and just says something about making coffee as such. The sentence is true at a situation iff in every relevantly accessible situation in which a being like us makes coffee in some way and has the properties that follow in virtue of being situations involving making coffee, they make coffee like this.

Moreover, these truth conditions provide an account of why bare impersonals are both statistical and prescriptive. It is not that there is a specific component within the semantics that makes them statistical and another component that makes them prescriptive. Rather, both the statisticality and the prescriptivity follow from the accessibility relation BEST(MB(s), OS(s)). This accessibility relation is constrained such that the only accessible situations are ones that have the in-virtue-of property associated with the restrictor (which, in the present example, would mean situations that have the in-virtue-of property associated with being situations of making coffee in some way). The hypothesis is that the statisticality and the prescriptivity of bare impersonals both follow from the way people understand this in-virtue-of property, and as we will see below, this hypothesis makes a number of further predictions about the precise respects in which bare impersonals should be statistical and prescriptive.

4. Similarities and differences

With this formal analysis in place, we can now spell out on a more intuitive level what our account says about bare impersonals and about how they are similar to, and different from, IS generics.

Consider again the case in which you are trying to tell someone how to make coffee and use either the IS generic (43) or the bare impersonal (44).

(43) A person does it like this.
(44) You do it like this.

On the account we have developed, these sentences are deeply similar. They are both best understood as saying that there is a principled connection between two different kinds of things. The difference is that while (43) says that there is a principled connection between a person making coffee and doing so like this, (44) uses exactly this same notion of principled connection, but it abstracts away from any information about which kind of entity is involved. That is, it does not say anything about what holds in virtue of the agent

being a person (or a trained barista, or an Israeli, or a member of any other specific kind). Rather, it simply says that there is a principled connection between making coffee as such and doing so like this.

This account makes clear predictions about the ways in which bare impersonals should be similar to IS generics and the ways in which they should be different. They should be similar in that they make use of precisely the same relation of principled connection, but they should be different in that they do not say that a property holds in virtue of an entity being a member of a certain kind (e.g., in virtue of being a person). So the account predicts that everything about IS generics that is tied to the relation of principled connection more generally should also arise for bare impersonals, but it also predicts that everything about IS generics that is specifically tied to kind membership should not arise for bare impersonals.

Let's begin with the differences. The present account immediately allows us to make sense of the cases discussed above in which bare impersonals cannot be used with certain sorts of properties. Consider again (5a), repeated here as (45a), and contrast it with (45b):

(45) a. ?You have a nose.
b. A person has a nose.

On the present account, (45b) says that there is a principled connection between being a person and having a nose. Then (45a) is similar, except that it abstracts away from facts about being a person in particular. So, abstracting away from anything about persons in particular, it says, roughly: there is a principled connection between having some alternative to a nose (e.g., a trunk, a snout, etc.) and having a nose. The former claim makes sense, while the latter does not.

The account then predicts that the converse should also hold true. In cases where being a person in particular seems irrelevant, the bare impersonal might still sound fine, but an indefinite singular generic with *a person* should sound wrong.

(46) a. ?A person finds the inverse of the matrix like this.
b. You find the inverse of a matrix like this.

On the account we have been developing, (46a) says that there is a principled connection between being a *person* finding the inverse of a matrix and doing so like this. Since it seems that we do not find the inverse in a particular way in virtue of our personhood, this sentence sounds odd. By contrast, (46b) does not involve the notion of being a person. It simply says that there is a principled connection between finding the inverse of a matrix and doing so like this. This latter claim seems like the sort of thing that might very well be true.

Let's now turn to the similarities between impersonals and IS generics. The present account allows us to explain why sentences involving impersonal pronouns embedded under certain operators lack a statistical/prescriptive reading, such as sentences in (6)-(10), repeated here as (47):

(47) a. Sometimes one forgets that one has a nose.
b. One can doubt that one has a soul.
c. One can see the picture from the entrance.
d. If one lives in a big city, one lives in a city.

e. It is difficult PRO to dance while holding one's dog.

Our explanation is that bare impersonals are IS generics, which is supported by the fact that this effect arises for IS generics. Thus, in (48), the impersonal pronouns are all replaced by indefinite noun phrases and precisely the same effect emerges. Despite the indefinites, there is no statistical/prescriptive reading.

(48) a. Sometimes a person forgets that she has a nose.
b. A person can doubt that she has a soul.
c. A person can see the picture from the entrance.
d. If a person lives in a big city, she lives in a city.
e. It is difficult for a person to dance while holding her dog.

Of course, this immediately leaves us with the deeper question as to why this effect arises for indefinites more generally. We do not know the answer to that question, although we suspect that any explanation would be piecemeal and would appeal to special features of each embedding environment. Nonetheless, the similarity in pattern provides further evidence for the claim that bare impersonals are IS generics.

Finally, as we noted above, IS generics seem to assert something that goes beyond just the mere claim that a particular property is both statistically frequent and prescriptively good. We illustrated this point above with sentences (14) and (17), repeated here as (49).

(49) a. A teacher helps her students.
b. ?A philosophy student has good taste in music.

The issue here is that teachers help their students *in virtue of* being teachers whereas philosophy students do not have good taste in music *in virtue of* being philosophy students.

The present account therefore predicts that this same phenomenon should arise for bare impersonals. It seems that this prediction is indeed borne out. Consider the following minimal pair:

(50) a. In a court of law, you tell the truth.
b. ?In a supermarket, you tell the truth.

Presumably, the contrast between these two sentences is to be understood in a very similar way to the contrast between (50a) and (50b). There is some important sense in which people who are speaking in a supermarket do not tell the truth *in virtue of* the fact that they are speaking in a supermarket.

Similarly, we noted that indefinite singular generics can be used to make claims about the prescriptive ideal of a kind without taking a stand as to whether that prescriptive ideal is itself the right one. For example, (51) (=(18)) does not say that if it is the case that a person is a liberal, then it is the case that this person ought to fight for progressive taxation. Instead, it seems to say something more like: it is part of the prescriptive ideal of being a liberal to fight for progressive taxation.

(51) A liberal fights for progressive taxation.

The present account predicts that this same effect should arise for bare impersonals. Again, it seems that this prediction is borne out. Consider (52):

(52) In a boxing match, you punch like this.

This sentence does not say: if a person is in a boxing match, then what the person ought to do is punch like this. (Perhaps what the person should actually do is punch in an extremely ineffective way so as to inflict as little injury as possible.) Rather, what the sentence says is something more like: it is part of the prescriptive ideal of punching in a boxing match to do so like this.

5. Conclusion

We began by noting that bare impersonals seem to communicate both statistical and prescriptive claims. To explain this phenomenon, we introduced an account of the semantics of bare impersonals according to which bare impersonals are indefinite singular generics. This account makes use of a generalized version of the notion of principled connection that has been used within existing research on indefinite singular generics, one which covers principled connections between different kinds of situations in addition to principled connections between kinds and their properties. More specifically, each bare impersonal has a restrictor and a scope, and the bare impersonal will be true only if there is a principled connection between the kinds of situations described by the restrictor and the kinds of situations described by the scope.

Our analysis emphasizes the similarities between bare impersonals and indefinite singular generics, especially with respect to the distinctive sort of statisticality and prescriptivity which naturally falls out of the notion of principled connection. For when a principled connection holds between different kinds of situations, there is generally also a statistical connection. That is, if there is a principled connection between restrictor situations and scope situations, it will generally also be the case that situations satisfying the restrictor will frequently be situations that satisfy the scope. Furthermore, on the kind of view we have developed here, sentences which assert a principled connection between restrictor situations and scope situations also communicate that there is something wrong with restrictor-satisfying situations that are not also scope-satisfying situations.

Of course, difficult questions arise about how to understand the prescriptivity in play here. On the one hand, we face questions about how asserting the existence of a principled connection can communicate prescriptive claims; on the other, we face questions about how to understand the distinctive sort of prescriptivity that is being communicated. This paper has not provided answers to those questions. Our hope, however, is that it has advanced the study of these issues in one specific respect. We have argued that the prescriptivity of bare impersonals is exactly the same as the prescriptivity of other indefinite singular generics. Thus, anything that future research might show about the prescriptivity of indefinite singular generics can be applied straightaway to bare impersonals, and vice versa.[17]

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