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**Philosophical Studies**

An International Journal for Philosophy  
in the Analytic Tradition

ISSN 0031-8116

Volume 177

Number 4

Philos Stud (2020) 177:865-882

DOI 10.1007/s11098-018-1210-8

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## What we can do

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Published online: 15 December 2018  
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**Abstract** Plural first-person pronouns have often been ignored in the literature on indexicals and pronouns. The assumption seems to be that *we* is just the plural of *I*. So, we can focus on theorizing about singular indexicals and about non-indexical plurals then combine the results to yield a theory of plural indexicals. Here I argue that the “divide and conquer” strategy fails. By considering data involving plurals, generics, and complex demonstratives, I argue for a referential semantics on which *we* can refer to two sorts of group-like entities. Further, by considering the nature of semantic theorizing, I argue that semantics must draw some metaphysical distinctions, including between groups of two sorts.

**Keywords** Indexicals · Plurals · Generics · Kinds · Semantics

Plural first-person pronouns have too often been ignored in the literature on indexicals and pronouns. The assumption seems to be that *we* is just the plural of *I*. So, we can focus on theorizing about singular indexicals and about non-indexical plurals then combine the results to yield a theory of plural indexicals.<sup>1</sup> The “divide and conquer” strategy fails. *We* is not plural *I*. *We* is not a pure indexical. Here I argue for a referential, rather than descriptive, semantics for *we*. *We* can refer to two

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<sup>1</sup> Or perhaps they are ignored as indexicals and pronouns are complicated enough without adding the complications that plural expressions bring. For instance, Forbes (2003) states in a handbook article on indexicals that “since plural expressions raise special problems” the entry focuses on singular indexicals.

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sorts of group-like entities. Along the way we consider the role metaphysics ought to play in semantic theorizing. Given a minimal methodological principle, a semantics needs to draw some metaphysical distinctions, including a distinction between two sorts of groups.

The relevance of the semantics of *we* goes beyond philosophy of language and metaphysics. *We* is central to explaining language's role in our psychological tendencies for group conformity and in-group bias. A better understanding of the semantics of *we* is also relevant in theorizing on social and political projects. For instance, *we* might be used when reappropriating slurs while promoting solidarity as in the chant *We're here. We're queer. Get used to it.* By relying on reference to different sorts of groups, the semantics developed here provides resources that can be taken up in theorizing about social-political and psychological phenomena.

The paper is structured as follows. I begin with a brief summary of Kaplan's theory of indexicals (Sect. 1). Then I draw three observations (Sect. 2) about the semantics of *we* that any adequate theory must capture. I argue for a principle that gives metaphysics a minimal but important role in semantic methodology (Sect. 3). Even the weak principle requires that a good semantic theory draw some metaphysical distinctions, for instance between groups of different sorts. A referential semantics for *we* that accounts for our observations and meets the metaphysical constraint on semantic methodology is developed (Sect. 4). The account is defended from an objection based on so-called "descriptive indexicals" (Sect. 5). Finally I draw concluding remarks and draw out ways a semantics of *we* interfaces with theorizing in social psychology and with social political projects (Sect. 6).

There are many uses of *we*. Here our focus is on a range of uses of *we* that are literal and are, at least prima facie, referential. I will not consider uses that seem to be extended or non-literal like the royal *we* (1) or what Zwicky (1977, 716) calls "phony inclusives" (2).

1. We have become a grandmother. (said by Margaret Thatcher to the press)
2. How are we feeling today? (Nunberg 1993)

Similarly, I do not focus on cases like 3 as uttered by a fan of a team.

3. We're the champions!

Utterances like 3 are plausibly extended uses like cases of deferred reference (e.g., "I'm parked out front"). The aim of the present paper is to develop and defend a referential semantics for paradigmatic instances of unbound, non-anaphoric uses of *we*.<sup>2</sup> How to unify the referential account with bound and anaphoric uses and how to account for a wider range of instances will be left for subsequent research.

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<sup>2</sup> Plural first-person pronouns can also occur bound or as anaphorically dependent on other expressions. For instance, *we* is bound in 'Whenever a pianist comes to visit, we play duets' (based on Partee 1989).

## 1 Direct reference theories of indexicals

Expressions can be referential or descriptive. The distinction can be spelled out in terms of what an expression contributes to the content of the proposition expressed by statements containing it.<sup>3</sup> An expression is descriptive if it “denotes,<sup>4</sup> and contributes the condition assigned to it by the rules of language, rather than the object denoted, to the content of statements containing it” (Hale and Wright 1997, 681). An expression is referential if it contributes an object to the content of the proposition expressed.

According to the standard account indexicals—expressions like *I*, *here*, and *now*—are directly referential (Kaplan 1989a, b).<sup>5</sup> They contribute people, places, times, or things themselves to the propositions expressed by statements containing them. On Kaplan’s theory, indexicals have two dimensions to their meaning—character and content. Characters are meaning rules that can be modeled by functions from contexts to contents. Contexts are parts of the world that can be modeled as ordered tuples including at least the speaker, time, location, and world. Contents are objects (e.g., places or people). For example, the character of ‘I’ can be modeled by a function from contexts to the speaker in the ordered tuple. A token of *I* uttered in a context in which Obama is the contextually specified speaker has Obama—that very person—as its content.

The character returns a content, but is not itself part of what is expressed. As Kaplan states, the character is “not part of the propositional content” (1989a, 497) and “does not provide a synonym for the indexical” (1989a, 523). When a proposition expressed by a sentence with an indexical is evaluated for truth or falsity in a counterfactual circumstance, the character is not redeployed or appealed to again in circumstances of evaluation. Rather, as Nunberg puts it “on any occasion of use, the linguistic meaning of an indexical expression takes us to a certain element of the context, and then drops out of the picture” (1993, 4). Since characters are not redeployed in circumstances of evaluation, the referent of a token of an indexical is the same as that fixed in its context of use. So when indexicals are evaluated in counterfactual circumstances, they always have the same referent. To put the point another way—indexicals are rigid designators. If a token of *I* refers to Obama, it refers to Obama in every world (at which Obama exists). It does not refer to some other speaker in another world.

Pure indexicals, like *I*, *here*, and *now*, are expressions that have their content fixed via their characters alone rather than via speaker intentions or an associated

<sup>3</sup> There are two ways to characterize what makes an expression genuinely referential, rather than descriptive (Marti 1995). On one characterization being referential is about *what* an expression’s contribution is to the proposition expressed by statements containing it. An expression is referential if it contributes an object. On the other characterization it is about *how* an expression designates an object. An expression is referential if it designates an object in a way that is not mediated by a semantic rule. Given our focus on indexicals, the first characterization is the one that is relevant.

<sup>4</sup> Following Russell (1905), Hale and Wright say “[a]n expression denotes when the rules of language assign specific conditions to the expression that an object must meet to be designated by it” (1997, 681).

<sup>5</sup> Kaplan does not include *we* in his list of examples of indexicals [although he ends the list of expressions with ‘etc.’ so it is clearly not meant to be exhaustive (1989a, 489)].

demonstration. They are automatic rather than discretionary (Perry 2001). For instance, if Obama mistakenly believes that he is in D.C. when he is actually in New York City, his token of *here* will refer to New York City, regardless of his intentions or mistaken beliefs.<sup>6</sup> To summarize, on Kaplan's view indexicals, like *I*, are pure/automatic, referential, and rigid.

## 2 Three observations

We can pick out groups that include or exclude utterance addressees. The most natural interpretation of *we* in 4 is inclusive, while the token in 5 is plausibly interpreted as exclusive.

4. We are going to be sober for the month of January, right?
5. I'm sorry that we didn't come to your party.

Inclusive uses of plural first person pronouns include the speaker, addressee(s), and possibly others. Exclusive uses of plural first person pronouns include the speaker and others but not the addressee(s).<sup>7</sup> The occurrences of *we* in 4 and 5 are plausibly interpreted as having small groups or pluralities of individuals that are either part of the conversation or contextually salient as referents. For instance, if 4 is uttered by Megan to Dante it is plausibly semantically equivalent to 4'.<sup>8</sup>

- 4'. Megan and Dante are going to be sober for the month of January, right?

Next, consider 6 and 7. Both involve lexical kind predicates, which are overwhelmingly held to take only kinds, rather than individuals, sets, or sums of individuals, as arguments (Krifka et al. 1995; Leslie and Lerner 2016).

6. If dinosaurs had remained dominant, we never would have evolved.
7. We are widespread / rare / soon to be extinct.

For instance, while no person is rare, albino people are rare. While you and I did not evolve, our species did.<sup>9</sup> 6 and 7 might be equivalent to 6' and 7'.

<sup>6</sup> *Here* can also be used as a demonstrative. For instance, if Obama points to a map and says *we will be here on Wednesday* it is plausible that *here* does not refer to where Obama is presently located, but to the place that the location on the map he demonstrated represents.

<sup>7</sup> Some languages have distinct lexical items for inclusive and exclusive first-person plural pronouns (e.g., Bahasa Indonesia or Indonesian).

<sup>8</sup> Theories differ on how to interpret plural expressions like *Megan and Dante*. Some take plurals to plurally refer, so that *Megan and Dante* and an equivalent instance of *we* plurally refers to Megan and Dante (to them) without referring to a single collective entity (McKay 2006; Oliver and Smiley 2001, 2013; Yi 2005, 2006). Others take plural expressions to refer to lattice-theoretic sums (Link 1983) or to sets (Landman 1989a, b; Schwarzschild 1996). On these views there is an entity (a set or sum) that is the referent of *Megan and Dante* and instances of *we* that are referentially equivalent.

<sup>9</sup> Have you ever seen a monkey turn into a man?! Confusion about evolution itself and the semantics of lexical kind predicates underlies this quizzical argument against the theory of evolution.

- 6'. If dinosaurs had remained dominant, human beings never would have evolved.
- 7'. Americans are widespread / rare / soon to be extinct.

Given the consensus about lexical kind predicates, we ought to infer that the tokens of *we* in 6 and 7 refer to kinds.

*We* can also serve as the argument of predicates in sentences that express characterizing generic generalizations.

8. We have brains that are about three times as large as chimpanzees, our closest living relative.
9. We are paid less than men for doing the same work.

Characterizing generics specify a characteristic that is common or striking but not necessarily universal among members of the group or kind. For instance, if 9 is uttered by a woman, it is plausibly equivalent to 9'.

- 9'. Women are paid less than men for doing the same work.

The proposition expressed can be true even if some women are not paid less than any men for the work they do. There is considerable debate about the correct way to treat characterizing generics (see Krifka et al. 1995; Leslie and Lerner 2016 for overviews and citations). In order to postpone the complications the debates involve, I focus on cases like 4–7 in this section and the next two. I return to cases of characterizing generics in Sect. 5 when I consider an objection based on so-called “descriptive uses” of indexicals.

We are now in a position to draw several observations. First, the character of *we* is not just the plural of the character of *I*. Kaplan argued that the character of *I* is to be modeled by a function from contexts to the speaker in the context. If *we* were just the plural of *I* it would be a function from contexts to the speakers in the context. None of the interpretations of 4–7 require there to be multiple speakers.<sup>10</sup> The character of *we* is not just the plural of *I*.

Moreover, we have evidence that *we* is not a pure indexical. The same speaker might use 4–7 in the same context to express something about different group-like entities. If *we* were a pure indexical, this would be impossible. Its character would automatically fix its content as *the* group containing the speaker in the context. Nunberg (1993, 10) makes the same point arguing that

In any postlapsarian context, the speaker is sure to be a member of an indefinitely large number of groups of people. So the interpretation of an occurrence of *we* can only be resolved by consulting the speaker's intentions, the conversational purposes, and the linguistic context.

<sup>10</sup> Others appeal to similar evidence to argue that *we* is not just plural *I*. Wechsler states that the “first-person plural refers, not necessarily to a multiplicity of speakers, but rather to ‘the speaker plus associates’” (2010, 337). Korta states that “it is absurd to assume that “we” is just the plural counterpart of “I” and just means “the speakers of the utterance” in plural. Utterances have a single speaker, even when they are simultaneous” (2016, 339). Nunberg notes that while “[i]t is not in doubt that *we* is plural; what is less certain is that it is the plural of *I*” (1993, 7).

While *I* might be a pure indexical, *we* is not.<sup>11</sup>

So far, we have observed two ways that *I* and *we* come apart. There is one important way in which they behave in the same way. Recall that Kaplan argued that the character of indexicals is not redeployed in a circumstance of evaluation. For instance, suppose Solange utters 10:

10. I am happy.

On the standard view, the proposition expressed is that Solange is happy. If we evaluate the proposition in a circumstance in which Tyler is speaking, its truth still requires that Solange is happy. On this feature, *we* patterns with *I*. If Solange utters 11, the truth of the proposition expressed requires that a group-like entity that actually includes Solange satisfies the predicate *be happy*.

11. We are happy.

Again, when the proposition is evaluated in another circumstance, we do not need to check to see who the speaker is in that circumstance of evaluation or whether the speaker is happy. Rather, the proposition is fixed in the context of utterance. Being a group containing the speaker is not part of what is expressed with an utterance of *we*.

To summarize, we have observed the following:

*Observation 1*—The lexical meaning/character of *we* is not the plural of the lexical meaning/character of *I*

*Observation 2*—*We* is not a pure indexical

*Observation 3*—The content of *we* is not synonymous with “a group containing the speaker”

Observations 1 and 2 reveal ways *we* is different from *I*. Observation 3 reveals a similarity between *I* and *we*—the characters of both *I* and *we* are not redeployed in circumstances of evaluation. In the next section I turn to methodological considerations about the role metaphysics ought to play in semantics and draw a fourth observation.

### 3 Metaphysics, methodology, and a fourth observation

There are many virtues one might use to evaluate semantic theory. Good semantic theories, like any other good theories, ought to explain data and make accurate predictions. For instance, a semantic theory should correctly capture truth-value judgments and inference patterns. Like other theories, they should avoid unnecessary complication and be parsimonious in positing explanatory mechanisms. In addition to general theoretical constraints semantic theories should also be constrained by psychological plausibility. For instance, one major line of

<sup>11</sup> Vallée notes that while *I* is “intention-proof”, “intentions may play a major role in the determination of part of the referent” of *we*” (1996, 223). Roberts (ms), Margolin (1996), Neale (2017), and Korta (2016) also note that *we* is not pure.

argumentation for a principle of compositionality relies on our psychological ability to make and understand perhaps infinitely many novel utterances (see, e.g., Frege 1914/1979; Fodor 1998). Perhaps a theory should also be judged on how well the ontology it posits mirrors reality.

Theorizing in semantics, physics, economics, or any other domain involves building models. Models can depart from actuality in ways that are more or less important (Weisberg 2013). For instance idealization can introduce “distortions into models with the goal of simplifying, in order to make them more mathematically or computationally tractable” (Weisberg 2013, 99). Idealized models can be both useful and successful. Given the possibility of the success of idealized models, semantic models could depart quite a lot from the nature of reality and still be successful in the ways we want them to be. All of metaphysics (thankfully!) need not be contained in a successful semantic theory. Many features of the nature of reality might fail to affect semantics whatsoever. If semantic theories need not be judged on how well they represent the nature of reality we are left with a question as to what if any metaphysical assumptions or ontological posits are relevant for judging the success or representational adequacy of a semantic theory.

Metaphysics has a role to play in semantic theorizing. A semantic theory ought uphold at least the following thesis.

*Metaphysics in Semantic Theorizing (MST)*: Semantic theories should draw metaphysical distinctions between denotations in order to ensure that substitutions of equivalents preserve truth conditions and grammaticality judgments.

Notice that MST is fairly weak. It does not require that a good semantic theory draw every metaphysical distinction or that anything close to a complete metaphysical theory must precede semantic theorizing. It only requires drawing a metaphysical distinction when failing to do so would lead the theory to make false predications about truth conditional equivalence or grammaticality, data squarely within the target domain of semantic theorizing.<sup>12</sup>

Further MST does not require judging a semantic theory based on what denotations or referents are. For instance, even if a distinction is required between two sorts of things—the Xs and the Ys—MST does not require that any specific natures be posited. For instance, MST does not require that the Xs must be modeled as sets while the Ys should be modeled as concrete objects. It merely requires that a distinction be drawn when failing to do so would elicit false semantic predictions.<sup>13</sup>

<sup>12</sup> MST operates given truth-conditional and grammaticality data. What the truth-conditional and grammatical data to be accounted for is may be open for debate. For instance, there is controversy over whether (1) and (2) are truth-conditionally distinct:

- (1) Herman believes Hesperus is visible.
- (2) Herman believes Phosphorus is visible.

How MST is to be applied depends on having a settled set of data.

<sup>13</sup> The view of semantic theorizing here accords with views argued for by Yalcin (2018) and Ball (2018). Both take semantics to involve modeling or measuring in a way that allows for abstraction without theoretical disadvantage.

According to MST a semantic theory must draw a distinction between different group-like entities if there is truth-conditional or grammaticality data requiring a distinction. Data does require a distinction. Suppose that the only dogs that exist now are Bert, Nika, Milo, and Max. If the referents of *dogs* and of *Bert, Nika, Milo, and Max* were identical, the following pairs of sentences should be equivalent.

12.
  - a. Dogs are rare.
  - b. #Bert, Nika, Milo, and Max are rare.
13.
  - a. There might have been more dogs.
  - b. #There might have been more Bert, Nika, Milo, and Max.

Neither pair is equivalent. There are also no entailments between the sentences in the pairs. So, MST requires that a semantic theory should draw a distinction between the denotation or referent of *dogs* and *Bert, Nika, Milo, and Max*. It does not mandate that the distinction be between sums and kinds or between entities that are of type *e* and entities that are of type  $\langle s, e \rangle$  or any other specific distinction. It does, however require that a semantic theory draw a distinction. The upshot of our discussion is that even without widespread consensus on the semantics of plurals or generic generalizations, the observation holds that *we* can refer to or denote groups of two sorts. They might be modeled as pluralities, sums, or sets on the one hand and kinds on the other.

*We* can be synonymous with conjunctions of proper names (4–5) and with bare plurals combined with lexical kind predicates (6–7). MST and 12 and 13 require that these be given different denotations. We arrive at our fourth and final observation.

*Observation 4*—*We* can refer to (or otherwise designate?) different sorts of groups

The observation includes a parenthetical as I have yet to argue that the cases of *we* on which we are focused are referential. In the next section I argue for and develop a referential semantics for *we* that allows us to drop the parenthetical and strengthen Observation 4.

#### 4 A referential semantics for *we*

A referential semantics for *we* can be motivated in two ways. First, Observation 3 showed that the character of *we* is not redeployed in circumstances of evaluation. Part of Kaplan's motivation for thinking that indexicals are directly referential is the way that characters are not re-deployed in circumstances of evaluation. If *we* were descriptive and meant a group containing the speaker, it would require checking to see who the speaker is in any circumstance of evaluation. Observation 3 showed that we do not do so. *We*, like *I*, does not involve a character being redeployed. This provides evidence that *we* is referential.

Second, the tokens of *we* in examples 4–7 are plausibly synonymous with conjunctions of proper names (4 and 5) and with bare plurals (6 and 7). Proper names are standardly treated as referential. Similarly, bare plurals at least in

constructions like 6 and 7 are standardly treated as referential. So, we have good reason to think that a referential semantics for *we* is plausible.

Observations 1 and 2 showed that *we* needs to have a character that is not just the plural of *I* and that is not automatic. A token of *we* must refer to a group that actually (i.e., in the context of utterance) includes the speaker. Just as a speaker cannot use *I* to refer to someone other than herself, a speaker cannot use *we* to refer to a group of which she is not a member.

The character of *we* can be modeled as a function from contexts to contents. In Sect. 1, contexts were taken to include agent/speaker, time, place, and world. To handle *we* a parameter for an assignment function is needed.<sup>14</sup> Kaplan himself suggested that an assignment function should be added to context. He states that in formal semantics “context is a package of whatever parameters are needed to determine the referent, and thus the content, of the directly referential expressions of the language” (1989b, 591). He goes on to say that “[t]aking context in this more abstract, formal way, as providing the parameters needed to generate content, it is natural to treat the assignment of values to free occurrences of variables as simply one more aspect of context” (ibid.). For our purposes, a context *c* will be modeled by an ordered tuple including agent/speaker, time, place, world, and assignment function as in  $\langle a_c, t_c, p_c, w_c, g_c \rangle$ . Assignment functions  $g_c$  are functions from indices—numbers assigned to particular tokens of expressions—to contents. Indices are assigned to tokens so that distinct tokens of pronouns can be assigned different values and can have different constraints. For instance an assignment function,  $g_c$ , in context *c*, might take 1, the index of  $we_1$ , and return the group of Becca, Dwayne, and Ty while returning the group women for 2, the index of  $we_2$ . What the assignment function in the context assigns as values of expressions is constrained by certain features on the expression type.

It is standard to take pronouns, including *we*, to carry presuppositions that constrain their possible values or contents. For example, Heim and Kratzer (1998) argue that number, gender, and person features of pronouns are presuppositional features (or  $\Phi$ -features). In order for an *x* to be the content of a pronoun, it must meet the  $\Phi$ -features on the pronoun.

*We* is plural and first-person, so what an assignment function can return for an index on a token of *we* is constrained by the following number and person features.

$$\begin{aligned} \llbracket \text{plural} \rrbracket^c &= \lambda x : x \text{ is a group} . x \\ \llbracket \text{1st} \rrbracket^c &= \lambda x : x \text{ is identical to or is a group that includes } a_c . x \end{aligned}$$

Both conditions are spelled out in terms of groups. For now, I intend the term loosely so that pluralities, sums, sets, kinds, and maybe other sorts of entities in a semantic theory could count as groups. I refine the terminology below. First-person is defined in a number neutral way allowing for it to be satisfied if the speaker is identical to or included in the referent the function assigns. The constraints require

<sup>14</sup> Alternatively one could add all of the possible groups as elements in the context, but this would involve adding *many* elements to the context and either allowing for tuples of variable arity or including a set of groups to the context. The semantics would still require something to choose which of the groups is the referent of *we*. It is simpler to add an assignment function to the context, so I do so here.

that an assignment function that assigns a value to *we* must assign a referent that is a group and that contains the speaker in the context. Putting these together the character can be defined as follows:

*Character of we:*

$\llbracket we_i \rrbracket^c = g_c(i)$  if  $g_c(i) \in \llbracket \text{plural} \rrbracket^c$  and  $\llbracket 1st \rrbracket^c$ , undefined otherwise.<sup>15</sup>

If  $g_c(i)$  returns an entity, then the semantics is referential. The character of *we* captures that the speaker must be included in the group.

The constraints in the character of *we* do not fully determine reference. Since the speaker is a member of many groups—people with whom she is conversing, people she is standing next to, people she talked to at the bus stop, her family, groups of friends, national, gender, and racial groups and so on—a discretionary element is needed to supplement context. Here I remain neutral on what can supplement the necessary condition *we* mandates to deliver a referent for a token of *we*. Speaker intentions, salience, demonstrations (as when a speaker says “we will go to the store” pointing to herself and two others), and other features could contribute to the determination of the assignment function in a context.

Given the arguments that *we* in our core examples is referential and our evidence from MST Observation 4 can now be strengthened.

*Observation 4\**—*We* can refer to different sorts of groups

MST requires that a distinction be drawn between the group-like entities that are referents of conjunctions of names and the referents of kind-terms. It does not require that a particular view of any sort of entity be adopted, unless it makes a semantic difference.

In order to provide a more concrete illustration, here I adopt the view that there are groups that are sums and kinds that are atomic individuals. A semantic theory could be built using different sorts of group-like entities. For instance, if one holds that plural expressions plurally refer to many individuals (e.g., Oliver and Smiley 2013), one could amend the semantics given here to avoid positing sums.

In the semantics being developed *group* in the number and person constraints is a technical term for entities that are sums or kinds. All groups are entities (e.g., type *e*). The referents of *we* in 4 and 5, are modeled as sums. On a sum approach the domain is structured by the sum formation operator and the individual part relation (Link 1983). Both atomic individuals (e.g., Sonia Sottomayor) and sums (e.g., Sottomayor + Ginsburg) are in the domain of entities. The sum formation operator, ‘+’, takes two atoms or non-atomic sums and yields their sum. Something, *a*, is an individual part of a sum, *b*, just in case the sum of *a* + *b* is identical to *b*. That is, *a* is already a part of the sum (hence is an *i*-part) of *b*, so summing *a* and *b* yields *b*. A sum is referred to by a token of  $we_i$  in *c* when  $g_c(i)$  returns a sum. Sums meet the number constraint as sums are included in the category of groups. A sum, *x*, meets the person feature on *we* just in case the speaker in *c*,  $a_c$ , is an *i*-part of *x*.

<sup>15</sup> The character for *we* given here is of the general form for definite pronouns with  $\Phi$ -features given by Buring (2011).

Kinds are atomic entities. In order to have access to members of a kind, we could include a realization function from world-time pairs  $\langle w, t \rangle$  to sums of members of the kind at  $t$  at  $w$ .<sup>16</sup> The referents of the tokens of *we* in 6 and 7 are kinds. A kind is referred to by a token of *we*<sub>*i*</sub> in *c* when  $g_c(i)$  returns a kind. Kinds meet the number feature as they are classified as groups in the framework. A kind,  $x$ , meets the person constraint just in case the speaker in the context,  $a_c$ , is a member of the kind at  $\langle t_c, w_c \rangle$ . Kind membership is encoded in the function associated with a kind.

Philosophers often identify kinds with properties or property clusters (Armstrong 1978, 1997; Hawley and Bird 2011; Millikan 1999; Boyd 1991). The view that kinds are properties fumbles on metaphysical and semantic grounds. First, it fails to adequately capture that when a kind is extinct or has evolved, it is not a property that has become extinct or that a property has evolved. Braun notes that “[k]inds and properties appear, at first glance, to be distinct types of entity, for objects have (or exemplify) properties, but are members of kinds” (2006, 512). Instead, going extinct or evolving seems to involve a group ceasing to exist (at a time and world) or coming to exist (at a time and world). Liebesman states that “unlike properties, kinds have many features generally ascribed to ordinary spatiotemporal objects and groups. Mankind pervades the planet and is depraved but the property of being a man is neither” (2011, 418). Kinds seem to be distinct from properties.

If MST is the only constraint used to evaluate the role metaphysics should have in semantic theorizing, these considerations are not relevant to a semantic project. However, there are semantic reasons to think kinds are not best modeled as properties. Properties are standardly modeled as functions. Kinds should not be modeled as being identical to functions given evidence that tokens of *we* in 6 and 7 are referential not descriptive. If a kind is identical to a function, it is descriptive rather than referential as the function would be contributed as its semantic value. We saw evidence at the outset of this section that *we* does not function like ordinary descriptive terms. Further if kinds were modeled as functions, the lexical entries for plurality and person would need to be made ambiguous, so that plural is defined both for an entity and a function. By modeling groups in two ways—as sums and as atomic entities with associated functions—MST is upheld.

Regardless of whether *we* refers to a sum or a kind, it does not necessarily refer to the speaker in the context. If *we* refers to a sum it might derivatively refer to each *i*-part of the sum. On the semantics given above, and given by Link (1983), there is no condition specifying this, although one could be added.<sup>17</sup> Even so, the speaker is referred to only derivatively. When a token of *we* refers to a kind, the speaker is not referred to even in a derivative way. The speaker must be a member of the kind—as specified above—but she is not one of the referents (contra Korta 2016; Vallée

<sup>16</sup> Chierchia (1998) develops a similar view on which kinds are modeled as individual concepts which are in the domain of individuals.

<sup>17</sup> A plural reference view on which conjunctions of proper names (and the referents of *we* in 1 and 2) are many entities might be understood in a way that involves reference to each of the many. Alternatively it could be understood as involving a new plural reference relation that plurally refers to the plurality without individually referring to any one entity. Choice on the nature of plural reference would determine whether *we* referred to the speaker in these cases.

1996).<sup>18</sup> To draw out the point, consider the role a speaker plays in the truth conditions associated with examples like 14 and 15 (as well as 6 and 7).

14. [Said by Kripke] If I hadn't become a philosopher, we would still be talking about names being synonymous with clusters of descriptions.
15. [said by child of Civil Rights leaders] If my parents hadn't been born, we would be even worse off than we are now.

The truth of 14 seems to (roughly) require that the nearest worlds in which Kripke is not a philosopher are worlds in which philosophers are still debating descriptivism about names. That is, the truth of 14 requires something holding of philosophers in a world in which Kripke is not a member of the kind philosophers. Similarly, 15 might be used to express that African Americans would be worse off if the speaker's parents had not been born. Supposing that any world in which the speaker's parents were not born is a world in which the speaker was not born, the truth of 15 requires that something hold of African Americans at a world in which the speaker does not even exist. Any view on which the speakers of 14 or 15 are taken to be a referent of the tokens of *we*, fails to correctly capture these truth conditions. While what *we* can refer to is constrained by the groups of which the speaker is a member, what *we* refers to is a group, not the speaker.

Recall that on Kaplan's theory indexicals are both referential and rigid. Often these features come in tandem. There are, however, expressions that are rigid, but not referential. For instance, *the actual President of the U.S. in 2018* is plausibly descriptive and rigid. It contributes a property to the proposition expressed by statements containing it. The property picks out the same person in every world, so it is rigid. While there can be rigid descriptive expressions, the connection between being referential and being rigid appears tighter. If an expression's content is an object, it seems it will pick out that very object at all other worlds. So, referentiality entails rigidity. Given the referential semantics of *we*, we have evidence that *we* is rigid. However, reference to kinds complicates matters.

Kind terms are often taken to be rigid (Kripke 1980; Putnam 1975), but developing a view on which kind-referring terms are rigid without trivializing rigidity has proven difficult. Kinds vary in their members across times and worlds. Variation in membership seems to pattern with variation in extension—a clear mark of non-rigidity. To add a further complication, some kinds—including some to which *we* can refer—are plausibly nonnatural. So, arguments for the rigidity of kinds that apply only to natural kinds will not help us in showing that referential *we* is always rigid (e.g., Devitt 2005; Besson 2010).

The referential semantics offered here is able to uphold the connection between reference and rigidity. To see why, consider again what *we* refers to in cases in which it is synonymous with a kind-referring expression. For instance in 6 I argued that *we* is synonymous with *human beings* and refers to the kind human beings. Kinds are entities. They have associated realization functions that return their

<sup>18</sup> Korta says that *we* "is partly automatic in referring to the speaker of the utterance and partly discretionary in referring to other individuals" (2016, 350). Vallée (1996) holds that a use of *we* always involves reference to the speaker in developing an account on which *we* is 10-ways ambiguous.

members or instances at a time and world, but kinds themselves are not functions. They are entities. The kind is rigidly referred to in all worlds.<sup>19</sup> The metaphysics of kinds allows for a kind to persist through gaining or losing members. The entity *we* refers to across possible worlds is the same entity—the same kind—even if it is different in its instances. The difference in its realization at worlds fails to undermine its rigidity in the same way that a proper name being rigid is not undermined by its referent being slightly larger or missing a limb at another world. For ordinary individuals, parts can vary across worlds without affecting rigidity. For kinds, realizations can vary across worlds.

To summarize, I have argued for a referential semantics of *we*. I showed that *we* can refer to sums and to kinds, both of which are entities. Kinds have associated functions that deliver their members at a time and world. Sums do not. While both are groups, they are distinct, so Observation 4\* is met. Observations 1 and 2 are met given the character of *we*. Observation 3 is met since the semantics is referential.

## 5 A descriptive semantics for *we*?

We saw evidence that motivated a referential account of *we* in the last section. Here I defend the referential account against so-called descriptive uses of indexical. I then consider whether *we* poses special problems for a pragmatic account of descriptive uses of indexicals.

Nunberg (1993) and Elbourne (2008) argue that indexicals have descriptive uses and that, therefore, a referential semantics for indexicals fails. They argue that 16–17 (from Nunberg 1993) do not involve referential tokens of indexicals, but are descriptive as in the (rough) paraphrases in 16'–17'.

16. [Said by a condemned prisoner] I am traditionally allowed to order whatever I like for my last meal.
- 16'. An inmate on death row is traditionally allowed to order whatever he likes for his last meal.
17. [Said by a Supreme Court Justice] We might have been liberals.
- 17'. The Justices of the Supreme Court might have been liberals.

These readings are not captured on a Kaplanian direct reference theory of indexicals. Nunberg and Elbourne argue that the descriptive readings of 16–17 should be explained by the semantics of indexicals. So, the Kaplanian direct reference view should be rejected.

If indexicals were descriptive, any use of an indexical should allow for a descriptive interpretation. But, simple sentences like 18 and 19 do not appear to license descriptive interpretations (King 2006).

18. It is cloudy today.
19. I am cold.

<sup>19</sup> Braun (2006) calls a theory like this 'Kind Designation Theory'.

For instance, 19 cannot be interpreted as equivalent to 19'.

19'. The person standing on the corner of 5th Avenue and 35th Street is cold.

18–19 appear to have only referential interpretations. King (2006) uses this observation to partially undermine a descriptive semantics of indexicals.

Further notice that sentences 16 and 17 include modal operators or adverbs of quantification—like ‘always’ or ‘traditionally’. It has been argued that these “triggers” are required to yield a descriptive interpretation (e.g., King 2006; Hunter 2010).<sup>20</sup> If descriptive interpretations are available only in specific environments, the semantics of indexicals themselves need not be descriptive. Rather, descriptive interpretations could be due to particular environments or constructions forcing pragmatic enrichment, type shifting, or substitution (e.g., Recanati 1993; Hunter 2010; Sæbø 2015). So, a referential semantics for indexicals could be maintained.

Yet, *we* appears to pose a problem for the view that certain “triggers” are needed to deliver descriptive readings. For instance the examples of characterizing generics in 8–9 (repeated below) do not include overt modals or adverbs of quantification.

8. We have brains that are about three times as large as chimpanzees, our closest living relative.
9. We are paid less than men for doing the same work.

If these are descriptive, it might seem that at least *we* can have descriptive uses outside of contexts involving adverbs of quantification or modals. So, a referential semantics for *we* (and maybe other indexicals) might be doomed after all.

When introducing characterizing generics in Sect. 2 I stated that there is ongoing debate about their semantics. Many hold that characterizing generics involve a covert Gen operator (e.g., Heim 1982; Lawler 1972; Schubert and Pelletier 1989). Others argue that characterizing generics, like generic claims involving lexical kind predicates, involve reference to kinds (Liebesman 2011; Teichman 2016). Both strategies provide resources to support that so-called “descriptive uses” of indexicals only arise in particular environments.

Amongst those who posit a Gen operator in the semantics of characterizing generics, there is debate about how the operator works and what it takes as arguments. However, it is standardly held that Gen is a dyadic operator that functions like an adverb of quantification (Lewis 1975). If this is correct, even if the tokens of *we* in 8–9 and 16–17 are descriptive, there is a covert “trigger” to explain the reading. So, the examples fail to show that descriptive uses of indexicals are possible outside of very limited contexts.

Those who take characterizing generics to refer to kinds posit a referential semantics. On this view when *we* is the subject of a characterizing generic the apparent descriptiveness of the use is not a result of *we* being descriptive, but due to the nature of kinds as having (at least in the theory developed here) an associated function. Again, the semantics of *we* does not require that descriptive uses of

<sup>20</sup> King (2006) focuses exclusively on adverbs of quantification as triggers, given the range of data “triggers” should also include modals or an alternative strategy like that argued for by Hunter (2010) should be used to account for descriptive interpretations that involve modals.

indexicals entail that indexicals have a descriptive semantics. So, on either semantic strategy of characterizing generics, a non-semantic account of “descriptive uses” of indexicals remains viable.

Additional data also appears to speak against a referential account. Constructions of the form *we Fs* as in 20 and 21 are at least superficially similar to constructions of the form *the Fs*.

20. We Minnesotans are blonde.
21. We philosophers are argumentative.

Definite descriptions are standardly taken to be descriptive rather than referential. So 19 and 20 might also serve as *prima facie* evidence that *we* is descriptive.

Constructions of the form *we Fs* do not require a treatment that makes the semantics of *we* descriptive. A constraint Braun (1994) argues for that involves a referential account of complex demonstratives could be adapted for our purposes. He argues that complex demonstratives like *that philosopher* meet the following necessary condition for reference “in every context *c*, *that N* refers in *c* to *x* only if *x* satisfies *N* in *c*” (1994, 208). To apply to *we Fs* the condition could be altered to read: in every context *c*, *we Fs* refers in *c* to *x* only if *x* satisfies *F* in *c*.<sup>21</sup> Constructions of the form *we Fs* might refer to kinds or function to add a restriction in the restrictor clause of the Gen operator. Neither requires that *we* has a descriptive semantics.

## 6 Concluding remarks

The semantics of *we* is more complicated than a divide and conquer strategy combining a treatment of indexicals and of plurals can accommodate. Our discussion of *we* drew us into debates on reference and description, connections between reference and rigidity, the nature of genericity, distinctions between various groups, and the role metaphysics has to play in semantics. We saw that a referential semantics for *we* can meet our four observations and that so-called descriptive indexicals do not pose a significant challenge to the account.

Going beyond semantics, uses of *we* draw together notions of the self and groups that are at the core of social psychology. People generally have positive self esteem and self conceptions (Banaji and Prentice 1994; Baumgardner 1990). Various consistency theories posit and have experimental evidence supporting that the more an individual identifies with a group, the more they are apt to have positively valenced attitudes towards the group as well (Greenwald et al. 2002; Mandelbaum forthcoming; Thibodeau and Aronson 1992). Uses of *we* plausibly involve thinking of oneself and of a group. So, *we* might have significant effects on attitudes towards the self and groups.

<sup>21</sup> See Borg (2000) and Glanzberg and Siegel (2006) for arguments that *F* in *that F* is a constraint included in the character or which plays a “policing” role that requires that the object denoted be *F*.

*We* is also relevant in social-political projects. People with higher status, power, or authority have been found to use *we* more frequently than *I* in written and spoken language (Kacewicz et al. 2013). If uses of *we* affect how people perceive their own or others' status, *we* might be an effective tool to democratize power and undermine hierarchies. *We* may also be intimately involved in explaining why only in-group members can use reappropriated slurs (Ritchie 2017).<sup>22</sup>

The semantics of *we* is interesting in its own right. It is also relevant to understanding how we represent the social world and ways we might aim to improve it. It turns out, *we* can do quite a bit.

**Acknowledgments** I thank participants at the New York Philosophy of Language Workshop and the Nova Scotia Meaning Workshop for feedback on early versions of this paper. In particular I thank Derek Anderson, David Braun, Alex Grzankowski, Eric Mandelbaum, Eliot Michaelson, Gary Ostertag, Craige Roberts and an anonymous referee for helpful discussions and comments.

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<sup>22</sup> Accounts of slurs that posit negative or derogatory content (e.g., in their truth conditional contribution, a conventional implicature, a presupposition, or an expressive element) usually posit that appropriated slurs are ambiguous. Yet, the theories falter in explaining why only in-group members can use slurs with their appropriated meanings. If, e.g., appropriated instances of *bitch* involve a conventional implicature (or presupposition or...) that *we women are laudable for being women* only a woman could express the appropriated content as a man could not use *we* to pick out the group women. Ritchie (2017) argues for this view.

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