

## Plural and Collective Noun Phrases

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This chapter examines the semantic behavior and treatments of plural terms and collective noun phrases. The semantics of plurals and collective nouns should be of interest to those working on collective intentionality more generally for at least two reasons. First, we will see that two sorts of formal semantic treatments have been developed to capture varieties of plural predication. The first involve a predicate taking a singular group-like entity as argument, while the second involves taking some individuals (as many rather than as a group) as argument. Choice of treatment or superiority of one over the other may have ontological ramifications for debates about collective intentionality and action. Second, the apparent truth of certain sentences is sometimes used as evidence for the existence of some feature. For example, “The Spurs are disappointed to have lost to the Clippers” might be used as evidence for the view that a corporation or a team can have emotions. Looking more closely at the semantics and plurals of collective nouns may increase one’s understanding of the support (or lack thereof) linguistic data can offer.

The chapter is structured as follows. In Section 1 I discuss the sorts of plural terms and collective nouns that will be the focus of this chapter. In Section 2, we turn to canvassing a range of data a semantic treatment should capture. In Section 3 we examine semantic treatments of plural terms. In Section 4 the treatments of collective nouns are discussed and it is argued that collective nouns have dual meanings. In Section 5 concluding remarks are drawn. While most of the literature on plurals and collective nouns involves the use of formal semantic and logical tools, here I will keep the discussion as informal as possible.

### 1. THE EXPRESSIONS

Plural terms come bare (*birds, students*), bound by quantifiers (*some birds, all the students*), in numeral constructions (*three birds*), with definite articles (*the judges*) and as conjunctions of expressions (*Dante, Alice, and Esme*). Here our examination will focus on definite

plural noun phrases and conjunctive plural expressions in subject position.<sup>1</sup> The discussion is limited due to space and is limited to these two construction types as they have been focused on most in the philosophical literature.

A syntactically singular collective noun can also arise in a variety of constructions (e.g. *a team, some committee, every flock, the crowd*). Further they manifest behavior that varies depending on features of the entities in the collections picked out. Collective nouns can pick out groups of inanimates (*deck, fleet*), groups of non-human animates (*swarm, pride*), unorganized groups of humans (*mob, crowd*) and organized groups of humans (*team, committee*). The behavior of collective nouns varies according to whether groups of inanimates, non-human animates, or humans are picked out. For example, corpus studies (e.g. Levin 2001) have shown that collective nouns denoting human groups allow plural agreement most often, followed by those denoting non-human animate groups and last, by those denoting inanimate groups, which rarely or never allow plural agreement. Given issues of space and that the focus of this Handbook is on collective intentionality, I will center our discussion on collective nouns that denote groups of humans. Even more specifically, our inquiry here will focus on collective nouns that pick out organized groups of humans such as *team* and *committee*.

## 2. DATA

Predicates can apply to plurals and collective nouns distributively or collectively. An application of a predicate is **distributive** if it applies to each (or perhaps most) of the entities referred to by the plural expression. *Eat lunch, smile, tall, fall asleep*, and *human* are paradigmatic examples of predicates with distributive interpretations. An application of a predicate is **collective** if it applies to some entities together. Predicates such as *gather*,<sup>2</sup> *surround, walk together, met in 1984*, and *six in number* are naturally interpreted collectively. To illustrate the distinction further, consider the following sentences:

1. The students/Dante, Irene, and Ebony/The committee ate lunch.
2. The judges/Sonia, John, and Ruth/The Supreme Court walked into the room together.
3. The judges/Sonia, John, and Ruth/The Supreme Court surrounded the building.

In 1 the predicate is naturally interpreted as applying to the subjects individually. It is true if each student or each of Dante, Irene and Ebony or each of the members of the committee ate lunch. In contrast, the predication in 2 and 3 is most naturally understood as collective. They require that the judges or Sonia, John, and Ruth or the Court together satisfy the predicate. Sentence 2 fails to require, for example, that Sonia individually walked into the room together and 3 is true even if no individual member of the Supreme Court surrounded the building. I'll call predicates such as that in 1 **distributive predicates** and predicates such as those in 2 and 3 **collective predicates**. In labeling predicates themselves as distributive or collective, I adopt the convention that predicates are lexically marked as distributive or collective. While this convention is not uncontroversial, it has been widely adopted by linguists and philosophers (e.g. Link 1983; McKay 2006; Bennett 1974; Schwarzschild 1996; Scha 1981).<sup>3</sup>

Other predicates—often called **mixed** predicates—have easily accessible distributive and collective interpretations. Examples include *carry a table upstairs*, *weigh 400 lbs*, and *write a decision*. Consider the following sentences:

4. The movers/Nick, Sara, and Sabrina carried a table upstairs.
5. The team carried a table upstairs.

Sentence 4 has two obvious interpretations. On its collective interpretation it means that the movers or Nick, Sara, and Sabrina worked together to carry a table upstairs. Alternatively, each of the movers or each of Nick, Sara, and Sabrina might have carried a (possibly distinct) table upstairs. Context can make one or the other reading more salient. In contrast to 4, 5 has only a collective reading. It does not have a reading on which the team members each are said to have carried a table upstairs. The unavailability of a distributive reading in 5 generalizes to all cases of mixed predicates combined with collective nouns. For instance, when *weighs 400 lbs*, *lifted a piano*, or *composed an opera* are combined with a singular collective noun they too fail to allow for distributive interpretations.

Schwarzschild (1996) makes a similar point employing a collective noun that denotes a collection of inanimates. He notes that while (A) has a clear interpretation involving distributive predication, (B) does not.

- (A) These cigarettes can be smoked in under two minutes.
- (B) This pack can be smoked in under two minutes.

Given this example Schwarzschild states ‘it is a property of collectives that they are generally not amenable to distributive readings’ (1996: 181). Given examples such as 1 above we see that this claim is too strong, but Schwarzschild’s observation provides further evidence that mixed predicates cannot be interpreted distributively when combined with collective noun phrases.

Distributive, collective, and mixed predicates have additional differences. Some might be interpreted as syntactic. Distributive and mixed predicates can be grammatically combined with ordinary non-collective singular subjects. In contrast, collective predicates do not easily combine felicitously with singular non-collective subjects.<sup>4</sup> The following examples show this.

6. Meg ate lunch.
7. Meg carried the table upstairs.
8. ? Meg walked into the room together.
9. ? Meg surrounded the building.

Sentences 6 and 7 are grammatical, felicitous, and might be true. Sentence 8 is marked and plausibly ungrammatical. Sentence 9 might be interpreted as ungrammatical, false (at least in all normal circumstances), or somehow pragmatically inappropriate.

Other differences in distributive and collective predicates are plausibly semantic in nature. Instances of distributive predication have a feature that Link (1983) calls the Cumulative Reference Property (CRP).<sup>5</sup> The feature can be captured as follows:

CUMULATIVE REFERENCE PROPERTY [CRP]: If P is a distributive predicate and some thing(s) X are P and some other thing(s) Y are P, then the X and Y are P.<sup>6</sup>

For example, suppose that Nancy and Molly are pianists and that Farrah and Linda are pianists. Then, Nancy, Molly, Farrah, and Linda are pianists. The CRP applies when predication is distributive and fails to apply with collective predication. For example, the collective predicate *are in a circle* fails to manifest CRP. Suppose that both “the boys are in a circle” and “the girls are in a circle” are true. From this we cannot conclude that “the boys and the girls are in a circle”; CRP fails to apply.<sup>7</sup>

Distributive and collective instances of predication also differ in their entailments. Instances of distributive predication have distributive entailments. Instances of collective predication lack these entailments. Distributive entailments can be captured by the following condition:

DISTRIBUTIVE ENTAILMENT [DE]: If P is an instance of distributive predication and X is a plural or collective noun phrase, P(X) is true if and only if for all x that are among X or are members of X, P(x).<sup>8</sup>

We saw that the predication in 1 is distributive. Given DE it entails that each of the individual students (or each of Dante, Irene, and Ebony or each of the members of the committee) ate lunch. DE fails to apply to instances of collective predication, so, for example, 2 fails to require that Ruth walked into the room together.<sup>9</sup>

The formulation of DE requires that distributive predicates distribute universally. One might argue that this condition should be weakened. Let’s look at an example. Suppose the relevant students are a, b, c, d, e, f and g. The sentence “The students ate lunch” is uttered when situation A obtains and when situation B obtains.

Situation A: a, b, c, d, e and f each ate lunch.

Situation B: a, b, c, d, e, f and g each ate lunch.

A and B differ with respect to whether student g ate lunch. In Situation A the predicate is satisfied non-maximally while in Situation B it is satisfied maximally. One might, however, take the utterance to be true in both situations.<sup>10</sup>

Nonmaximality behavior could be captured semantically or pragmatically. Semantic strategies might appeal to altering the quantifier in DE to allow for exceptions (e.g. Brisson 2003) or by positing that the denotations of plural and collective terms are (or are sometimes) distinct from extensional lists of individuals (e.g. Landman 1989b). Alternatively, one might argue that, strictly, when plurals or collective nouns are arguments of instances of distributive predication, they require the universal entailments DE as formulated specifies. However, we are apt to take an utterance of “the students ate lunch” to be reasonable in Situation A, so we mistakenly judge it to be true. Here I will not attempt to adjudicate whether a semantic or pragmatic strategy is superior. Next, I turn to data specific to collective noun expressions.

In addition to predicates that apply to collective nouns distributively and collectively, some predicates apply in a third distinct way. Take the following examples:

10. The Committee on Ways and Means is old. It’s been around since 1789!
11. The committee was reduced in size after the government shutdown.
12. The team was founded in 1902.
13. The group is large. It has over 50 members!

The predicates in 10–13 apply to the denotations of the subject expression as a whole, rather than to the members of the collections picked out by the collective noun phrases. For example, 12 says that the team as a whole or as an institution was founded in 1902. It fails to require that any team member was founded in 1902 (or at all). The uses of the predicates in 10–13 fail to meet DE. In that way they pattern with instances of collective predication. Further, they can combine felicitously with singular subjects in ways that collective predicates usually cannot. They do not seem to involve the sort of joint or togetherness condition that typifies collective predication. For instance, when a group surrounds, writes together, or even collectively weighs 500 lbs the members jointly or taken together satisfy the predicate. The predicates in 10–13 are not like this. We have evidence that predicates like those in 10–13 are to be understood in a way distinct from distributive and collective predication. So, I argue that we have evidence that collective nouns allow for a third sort of predication, call it **group-level predication**.<sup>11</sup> Finally, I turn to data on collective nouns and agreement.

It has been noted, at least since Jespersen (1914), that collective nouns allow for singular and plural agreement. Further, it has long been known that agreement possibilities vary among English dialects and features of the denotation of the collective noun. For example, British English allows for plural agreement on verb phrases (VPs) and pronouns, while American English rarely (if ever) allows for plural VP agreement, but does allow for plural pronoun agreement. Consider the following sentences.

14. The team **is/are** old.
15. The Supreme Court is in session. **It/They** will likely rule on *Burwell v. Hobby Lobby* today.
16. After every game, the winning team dumps Gatorade on **its/their** coach.
17. Inspections may come sooner if the department indicates that **it is/they are** ready for evaluation.

In British English both singular and plural VP agreement in 14 are acceptable. The variation in agreement corresponds to a variation in the interpretations the sentences are given. When agreement in 14 is plural, it is taken to mean that the team members are old. When the agreement is singular it is said to have two interpretations—one on which the team was formed long ago and one on which the individual members are old. In British English the choice of verb number can, but need not always, constrain the interpretation of the predication.

As exemplified in 15–17, bound and unbound singular and plural pronoun agreement is felicitous with collective nouns that pick out collections of humans. This holds across in all forms of English. In contrast, collective nouns that pick out collections of non-human animates (e.g. *swarm*, *pride*) allow plural agreement less frequently, and collective nouns that pick out collections of inanimates (e.g. *fleet*) rarely or never felicitously allow plural agreement.<sup>12</sup> We have come to the end of our discussion of linguistic data involving plurals and collective nouns. Next, let's turn to semantic accounts of plurals and collective nouns.

### 3. SEMANTIC TREATMENTS OF PLURALS

Semantic treatments of plural expressions can be broadly divided into two classes based on whether a plural term is taken to pick out a set/sum of entities or many entities.

I'll follow Oliver and Smiley (2001) in calling the former treatments Singularist and the latter treatments Pluralist. They are so-called as Singularist treatments take plural terms to pick out singular entities<sup>13</sup> and Pluralist treatments take plural terms to pick out many individuals plurally.<sup>14</sup> Here I briefly explicate how a version of each represents plural terms and can capture distributive and collective predication. There are many points where theorists diverge.<sup>15</sup> Here I adopt one simplified version of each type of theory.

On a Singularist approach the denotation of plural expressions is either sets or sums. For example, in a Singularist treatment *Dante, Irene, and Ebony* will denote either the set {Dante, Irene, Ebony} or the sum Dante+Irene+Ebony. Here I examine a Singularist treatment (based on Link (1983)) that employs sums. The Singularist who employs sums uses a domain structured by the sum formation operator and the individual-part relation. Ordinary individuals are called atomic individuals or atoms. The sum formation operator, "+", takes two atoms or non-atomic sums and yields their sum. A domain of atoms closed under sum formation yields all the sums of those individuals. For example, if a domain includes the atoms Dante, Irene, and Ebony, the sum formation operation will deliver the sums Dante+Irene, Dante+Ebony, Irene+Ebony and Dante+Irene+Ebony. These entities are available to serve as the denotations of plural terms. The domain of atoms and sums is structured according to the individual-part (or i-part) relation. The i-part relation, symbolized as " $\leq$ ", meets the following biconditional:

$$a \leq b \quad \text{iff} \quad a + b = b.$$

This captures that, for example, Dante is an i-part of Dante+Irene+Ebony given that the sum of Dante and Dante+Irene+Ebony is just the sum Dante+Irene+Ebony.

Definite plural terms of the form 'the F' pick out the largest sum of entities satisfying the predicate F. For example, if there are four students, a, b, c and d, *the students* picks out the sum a+b+c+d. Following Link (1983) "the Fs" can be represented as  $\sigma xFx$ .

A Pluralist adds a plural existential quantifier  $\exists xx$ , and plural universal quantifier,  $\forall xx$ , to first-order logic.<sup>16</sup> The first is read "some things are such that," the second, "all things are such that." They are plural as they can take multiple individuals as argument. Pluralists do not take this to involve quantifying over plural objects (e.g. sums or sets), but to involve many individuals as many serving as arguments. Pluralists employ domains with only ordinary singular individuals (e.g. Dante). The Pluralist uses the "among"-relation, which allows one to say that some thing or things are among some things. More formally, "the *xxs* are among the *yys*" is formalized as " $xxAyy$ ." Conjunctive plural terms can be written, (following McKay (2006)) using constants and brackets. For example, the plural term *Dante, Irene and Ebony* is written  $[d, i, e]$ . A Pluralist treatment of definite plural terms could be formulated following a Russellian analysis with plural quantifiers.<sup>17</sup> "The Fs" would be formalized as  $[\exists xxFxx \ \& \ \forall yy(Fyy \rightarrow yyAxx)]$ . Next I turn to the treatments of predication.

To capture distributive and collective predication, predicates in the Singularist language are differentiated according to whether they take both individuals and sums or only sums. The first accords with distributive predication, the second with collective predication. The difference can be marked with a "\*" on distributive predicates. Mixed predicates could be taken to be ambiguous. The "\*" operator is defined to capture DE and CRP. According to the definition of the operator, if \*F applies to a sum, \*F truly applies

to every atomic i-part of the sum. Collective predicates fail to have distributive entailments as they are not modified by the operator. The “\*” operator closes the domain of the predicate under sum formation. Given this, if \*F(a) and \*F(b), then \*F(a+b). In this way CRP is met for distributive predicates.

The Pluralist captures collective predication through predicates whose single argument places can be satisfied by multiple individuals. Collective predication is not reducible to predication of each individual. Instead, some things together as many satisfy a predicate. Distributive predication is captured using the “among”-relation and a quantifier. For example, 1 with a conjunctive plural term in which “E” represents *eat lunch* is represented as

$$1'. \forall x (xA \lfloor d, i, e \rfloor \rightarrow Ex)$$

Informally 1' says that anything that is among Dante, Irene, and Ebony is such that she or he eats lunch. Mixed predicates could again be taken to be ambiguous. DE is captured in instances of distributive predication due to the use of the universal quantifier. Since collective predicates are not reducible to quantifier expressions, which are relied on to meet DE, they correctly fail to meet it. In simple cases, CRP is captured through conjunction introduction or through universal instantiation and conjunction introduction. We have seen a sketch of the way a Singularist and a Pluralist can capture plural predication. Next, we examine whether one treatment is superior.

One might appeal to semantic or logical reasons to try to argue for the superiority of a Singularist or Pluralist approach. First, it has been argued that a Pluralist approach is superior as it can avoid Russellian-style paradoxes that a Singularist theory cannot.<sup>18</sup> However, using sums rather than sets avoids Russell's Paradox. So, the Singularist we have been considering sidesteps this worry. Further, the sentence “there are some sums which are all and only the sums that are not i-parts of themselves” is false, as all sums are i-parts of themselves so the same sort of paradox does not arise for sums.<sup>19</sup>

Second, one might argue that only one style of treatment can handle the full range of semantic data. There is not space here to go through the variety of constructions one might argue cannot be captured by both theories, but the similarity of the two treatments gives us some evidence that they are equally capable. For example, both appeal to a part-style relation (either i-part or among). Where the Singularist uses a domain closed under sum formation, the Pluralist appeals to plural reference and quantification. Of course this is not an argument that the two are equally semantically capable, but it gives us some evidence that they are.<sup>20</sup>

Metaphysical arguments have also been given in favor of a Pluralist treatment. An appeal to ontological parsimony favors a Pluralist treatment. Intuition can also be appealed to in favor of a Pluralist treatment. For example, Boolos states that ‘it is haywire to think that when you have some Cheerios, you are eating a set’ (1984: 72). Here I will not attempt to further adjudicate the debate between Singularism and Pluralism. Next, we turn to a discussion of semantic treatments of collective nouns.

#### 4. SEMANTIC TREATMENTS OF COLLECTIVE NOUNS

Semantic data involving collective nouns appear to pull us toward the view that collective nouns denote many entities *and* toward the view that they denote singular entities. For

example, we saw that, like plurals, they allow for collective and (some) distributive predication. Yet, as we saw in 10–13, they appear to denote wholes when serving as arguments for other predicates. Further, we saw that collective nouns allow for singular and plural agreement. In accordance with the data, treatments of collective nouns have tended to take their denotations to be either the same as plural term denotations (Bennett 1974; Munn 1998; Elbourne 1999) or to be whole singular entities of some sort (Barker 1992; Schwarzschild 1996; Landman 1989b).<sup>21</sup> In choosing either a singular or a plural denotation, one must account for the data that pushes in the other direction. For example, if the denotation of a collective noun is singular, one needs to account for the possibility of plural agreement and distributive predication. Given the mixed data, instead of opting for one or the other denotation for collective nouns, one might argue that collective nouns have dual denotations. Since expressions with multiple meanings are often taken to be ambiguous, it would be *prima facie* natural to take collective nouns to be ambiguous.<sup>22</sup>

Ambiguous expressions require that a use selects one meaning. For example, in 18 *duck* can have its bird-meaning or its crouching-meaning, but not both.

18. Sue saw her duck and I did too.<sup>23</sup>

If collective nouns are ambiguous, a single token of a collective noun should allow for only one meaning to be utilized. However, a single token of a collective noun can allow for both a group as a whole meaning and a group as many meaning. For instance, we saw that a token of a collective noun can allow for both singular and plural agreement in examples 14–17. Sentence 19 involves a collective noun combined with predicates that rely on the group as a singular entity and on group members.

19. The team, which is composed entirely of freshmen, is young, but talented.

Since a single token can utilize multiple meanings, collective nouns should not be taken to be ambiguous. Instead, we should take both meanings to be had by each collective noun. I will call expressions that have multiple meanings in this way **polysemous**.<sup>24</sup> Next I turn to a brief sketch of a semantics of collective nouns that captures the data canvassed in Section 2.

On the semantics being developed, collective nouns are polysemous between a singular group-meaning and a plural members-meaning. The two are connected so that the group-meaning delivers the varied group members (the various members-meanings) across worlds and times.<sup>25</sup> One way to think of the connection between the group and members meaning is in terms of a group-meaning involving an entity with a structure. Teams, committees and courts seem to be entities with structures.<sup>26</sup> They are functionally organized in terms of roles and the relations that members bear to one another. On this picture, the members of a group at a time are the individuals who bear the relations required by the group's structural-functional organization. Since different members can play the roles in the group's structure, this view allows for variation in members of a group across worlds and times. Next let's briefly examine how the data can be captured by a view on which collective nouns are polysemous.

Distributive predicates, such as *eat lunch*, apply to individual people, so such predicates will select for the members-meaning of a collective noun. In order to keep the treatments of plurals and collective nouns similar, collective predicates, such as *gather*, could be taken to apply to the denotation of the members-meaning (i.e. the many members).<sup>27</sup>



Finally, group predication will be captured by a predicate applying to a collective noun's group-meaning. Singular agreement will be captured through concord with a collective noun's group-meaning, while plural agreement can be explained due to the members-meanings of collective nouns.<sup>28</sup> While brief, this will have to suffice for an explication of how a semantic treatment that takes collective nouns to be polysemous might go.

## 5. CONCLUDING REMARKS

We have seen that plurals and collective nouns allow for varied predication that bring with them varied entailments and that collective nouns allow for both plural and singular agreement. I have described Singularist and Pluralist semantic treatments of plural terms. I also canvassed some arguments that have been given in favor of Pluralist treatments and for the view that the two sorts of treatments are equally adequate. Finally, I argued that collective nouns are polysemous between a plural members meaning and a singular group meaning. In arguing for views in social ontology and in collective intentionality, action, and emotion, the semantics of plural terms and collective nouns may prove informative.

## RELATED TOPICS

Social Groups (Ch. 21), Collective Intentionality and Language (Ch. 28), Logic and Plurals (Ch. 34).

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## NOTES

1. Additional complications arise when plural terms are in subject and object position, as in "Three students gave four presentations." Such cases are often taken to involve cumulative readings. See, e.g. Scha (1981) and Winter (2000) for discussion of such cases and how they relate to collective and distributive predication.
2. Here I mean to highlight the intransitive use of *gather*. The transitive use of *gather* as in "The judges gathered their papers" can be interpreted distributively.
3. Not everyone agrees that predicates should be marked lexically. Some have argued that distributive and collective interpretations are available for all predicates given the right context (e.g. Winter and Scha 2015; Josh Dever (pc); Marija Jankovic (pc)).

4. If all predicates have distributive and collective interpretations in some context or other, syntactically singular subjects should be able to grammatically combine with predicates that I have labeled collective. For instance, while *surround* and *gather* are classified as collective, sentences such as “The wall surrounded the city” and “The storm gathered in the sky” are grammatical and easily interpretable.
5. He cites Quine (1960: 61) as the source of this observation.
6. The CRP might need to be modified to include a contextual parameter to correctly handle context-sensitive predicates. For instance, in context *c*<sub>1</sub> it might be true that Nancy and Molly are tall and in context *c*<sub>2</sub> it might be true that Farrah and Linda are tall. However, if *c*<sub>1</sub> and *c*<sub>2</sub> have different standards for tallness, it might be false that Nancy and Molly and Farrah and Linda are tall. Given this, the CRP could be modified to apply only when a context is fixed.
7. McKay (2006: 7) argues that the CRP does not apply to all distributive predicates. He cites predicates such as “being fewer than four in number” and “being of just one gender” as examples that involve distributive predicates for which the CRP does not hold. While I agree that the CRP fails in these cases, it seems the readings are collective rather than distributive. For example, in saying “the students are fewer than four in number” one is not saying that each student is fewer than four in number, but that collectively they are. The same holds for the other predicates McKay considers.
8. We will see in the next section different ways semantic theories might understand what it takes for *x* to be among the *X*s, so as of now this is a somewhat rough formulation.
9. Instances of collective predication also have entailments which one might call participates-in entailments or subentailments (Dowty’s 1987 terminology). For example if “the students surrounded the table” is true and Kai is one of the students, then Kai took part in surrounding the table. For reasons of space these won’t be further addressed here.
10. Definite plural expressions seem to have looser truth conditions than conjunctive plural expressions. Although, see Landman (1989a and 1989b) for a discussion of cases in which he argues that conjunctive plural terms can be true in non-maximal situations.
11. De Vries (2015) calls predicates such as in 10 “group-level’ atom predicates.” Here I classify the sort of predication, rather than the predicates, as the predication seems similar in all of 10–13 and some of the predicates can also be classified as distributive when combined with plural terms and, in some cases (e.g. *old* and *large*) collective nouns. The predicates in 10–13 pattern with predicates that Schwarzschild (2011) calls stubbornly distributive predicates. Such predicates take only singularities (such as Bob or the Cleveland Cavaliers), rather than sets or many things (such as the students or Chris and Luke). They also pattern with what Winter (2002) calls atom predicates. He takes such predicates to only apply to atoms, rather than sets.
12. See Levin (2001) for corpus data to support the difference between British, American, and Australian English and for differences between agreement with collective nouns based on animacy and humanity. See also de Vries (2015) for a discussion of animacy and collective nouns.
13. Singularists usually take the denotation of plural terms to be sets or sums. For proponents of a set approach see, e.g. Bartsch (1973), Bennett (1974), Schwarzschild (1996), Landman (1989a, 1989b). For proponents of lattice-theoretic sum approaches see, e.g. Link (1983). See Landman (1989a) for an argument that plural terms can also pick out groups, entities that are atomic in ways that sets and sums are not.
14. For proponents of Pluralist approaches see, e.g. Boolos (1984), Hossack (2000), Oliver and Smiley (2001, 2005, 2013), Yi (2005), McKay (2006), Schein (1993), Moltmann (1997).
15. For example, ambiguities have been posited in the denotations of subject expressions (e.g. by Landman (1989a and 1989b)) and in predicates (e.g. by Link (1983) and Lasersohn (1995)). Others have appealed to covers, developed by Schwarzschild (1996) to avoid ambiguities in predicates. Distinctions regarding, for example, how to handle distributive predication, have been implemented with quantifiers (following Link (1983)), via meaning postulates (following Scha (1981) and Hoeksema (1983)), and through a combination of the two (see, e.g. Dowty (1987); Hoeksema (1988); Winter (1997, 2000); Champollion (2010); and de Vries (2015)).
16. Alternatively, these are sometimes represented as  $\exists X$  and  $\forall X$ .
17. This departs from Russell (1905) in allowing for definite expressions to have meaning in isolation.
18. For exposition and arguments see, e.g. Boolos (1984), Schein (1993), Oliver and Smiley (2013).
19. See Rayo (2002) and Nicolas (2007) for discussion of ways for a Singularist to avoid paradox.

20. For arguments that the Singularist cannot capture the full range of semantic data see, e.g. Schein (1993), Oliver and Smiley (2001, 2013), McKay (2006), Yi (2005). For arguments that the two styles of treatment are equally semantically capable see Ritchie (2016).
21. See Pearson (2011) for an alternative view.
22. Schwarzschild (1996) has suggested that collective nouns in British English are ambiguous between a plural and a singular denotation. Suerland and Elbourne (2002) have argued that collective nouns in British English are semantically plural while those in American English are semantically singular.
23. This observation and a very similar example come from Zwicky and Sadock (1975).
24. Other expressions that are often taken to be polysemous can require multiple meanings in a single token. For example, “Anne broke the window and then climbed through it” and “After finishing the bottle, we recycled it” are felicitous and utilize multiple meanings of *window* and *bottle*.
25. Formally the connection between the group and members meaning can be captured via a function or a relation.
26. See Ritchie (2013 and 2015) for a development of a view on which groups are structured wholes.
27. Some have argued that collective predication of plural terms should be handled by taking plurals to denote groups (e.g. Landman 1989a, 1989b). If one opts for this strategy with plurals, it would be natural to do the same in one’s treatment of collective nouns and take collective predication to involve predication of groups rather than members.
28. One might appeal to syntactic and semantic features to help explain why plural VP agreement is dispreferred in some dialects of English. See, e.g. Corbett (2000).