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SNYDER AND SHAPIRO'S CRITIQUE OF PSEUDO-SINGULARITY

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We call a term *pseudo-singular* if it is syntactically singular but semantically plural, capable of denoting many things, not just one. 'The pair who wrote *Principia*' is a good example, standing as it does for the two men, Whitehead and Russell. We introduced the idea in our *Plural Logic* (2016, §15.1). It has recently been fiercely criticised by Eric Snyder and Stewart Shapiro in their 'Group nouns and pseudo-singularity' (2021), who say that the case for it is 'problematic' and 'weak' and the idea itself 'linguistically and logically untenable'. In this reply we take the opportunity to reclaim our notation, which they suppressed in favour of the one devised by Agustín Rayo (2006). They say that 'nothing turns on this matter of notation' (p.76, n.1), but they could hardly be more wrong. Rayo was troubled by generalizations about absolutely everything, and his notation is highly stratified, with *x* for a singular variable, *xx* for a plural variable, *xxx* for a superplural variable, and so on. We do not think it right to let the notation prejudge the issue in this way, and so we used the same symbols, **x**, **y** etc, for all plural variables. This is not open to the contrary objection, since anyone with Rayo's concerns can easily insist on restricting quantification to one level at a time.

Snyder & Shapiro present four objections, two under the heading 'linguistic problems' and two headed 'logical problems', and we take them in turn.

1. Plural override

When introducing the idea of pseudo-singularity, we observed that in British English, terms like 'the pair' have a hybrid status, respecting some but not all of the grammatical rules of agreement based on number. Grammarians label this phenomenon 'plural override', and we said that it 'strongly suggests the presence of pseudo-singularity' (2016, p. 306). Snyder & Shapiro ignore our actual words, imputing to us the vastly stronger claim that since the relevant terms 'are acceptable with [*some but not all*] plural morphology, they, like definite plurals, *must* be genuine plural terms' (p.72; our reminder and our italics), and foisting onto us the absurd presumption which is needed to underwrite the entailment. In the event we decided not to rely on plural override, but Snyder & Shapiro do not mention this. Their handling of the topic illustrates a general failure to report accurately or reliably what is in front of them. This may seem a harsh judgment, but many more examples appear below

2. The 'or'-test for pseudo-singularity

Having decided that the phenomenon of plural override was insufficiently widespread to use as evidence, we turned to the argument scheme

> *a* is *F* or *G*, therefore *a* is *F* or *a* is *G*

to supply a test. We did not give it a name at the time, but we shall talk here of the 'or'-rule. In Snyder & Shapiro's piece the or-rule features as formula (14). The corresponding 'or'-test makes a term *a* semantically singular iff the or-rule is valid for *a*.

They begin by criticising our illustrative applications of the test. They object to taking *a* to be 'the majority', on the grounds that 'majority' is not a group noun (p. 72). Why they think this is relevant to our work is a mystery, since we never mention group nouns. This aside, elsewhere (n. 3 and 8) they rely on the linguist Chris Barker (1992), and if they had recalled his opening definition ('A count noun will be a group noun just in case it can take an *of* phrase containing a plural complement, but not a singular complement', p. 69), they would have immediately obtained a verdict to the contrary. As it is, they bring in another linguist, Susan Rothstein, saying correctly that if 'majority' were a group noun it would be a 'counting classifier' in the sense of her book (2017). There one finds an argument that 'English classifiers are nouns', listing some of the wide range of properties of nouns that they possess (pp. 202–3). Snyder & Shapiro claim that 'majority' has almost none of them (p.72), and conclude that it is 'not plausibly a group noun'. But they should conclude that it is not even a *noun*—an unhappy outcome for them, since they go on to describe it as a 'nominalization' (of 'most', p.73). And how do they support their claim that 'majority' has almost none of the properties on Rothstein's list—obligatory agreement with numerals, free modification by adjectives, etc—when it so clearly has every one of them? Not surprisingly, they don't attempt to supply chapter and verse. Instead, they abruptly change tack and continue 'as shown by (18)'

18 a. That's an unshuffled new {deck/??majority} of cards.
b. The people came in {droves/??majorities} and assembled on the steps.
c. These {groups/??majorities} are highly skilled.

But now consider these, call them (18*)

18* a. That's an unshuffled new {deck/??committee} of cards.
b. The people came in {droves/??decks} and assembled on the steps.
c. These {groups/??decks} are highly skilled.

If Snyder & Shapiro's (18) shows that 'majority' is not a group noun, then our (18*) shows that 'committee' and 'deck'—their paradigms—are not group nouns either. Something is wrong. What has happened is that Rothstein accompanied her list by illustrative examples, and Snyder & Shapiro have wrongly treated these as if they were standalone tests involving substitution in arbitrarily selected sentence frames; thus (18c) is their version of her (20b) 'These groups are highly skilled'. But such tests were no part of her argument: Snyder & Shapiro have made them up.

They are not yet finished with 'the majority', however, objecting that it is no better than the notoriously indefinite 'the average person'. That would be a howler indeed, which is why we took the precaution of introducing the example with 'suppose for the sake of definiteness that a majority of voters are in favour of some proposal, and with reference to them' (2016, p. 306). If Snyder & Shapiro had heeded this crucial caveat, their objection would never have reached the page.

For our other example we chose 'the pair died during the 20th century', assuming it to be equivalent to 'the pair died during the first or second half of the century'. They object that by adopting 'similar assumptions' (p. 73) it is easy to make even genuine singular terms fail the test, e.g. by assuming that ‘Joe sang sonatas for an hour’ is equivalent to ‘Joe sang sonatas for the first or second half of an hour’. But who would assume anything so blatantly false? Surely, to count as ‘similar’ the assumption should at least be true?

Their final criticism is that the ‘or’-test is independently dubious as a test for singular term-hood since it admits clear counterexamples, citing the fact that ‘some policeman’ passes it.

> Clearly, ‘some policeman ‘ is not a genuine singular term. Consequently, (14) fails to characterize all and only singular terms. But then even if DGNs [definite group nouns] like ‘the pair’ failed to license (14), that would not suffice to warrant the conclusion that they are *pseudo*-singular terms. (p. 73)

To deal with this passage, we need to highlight three points that its authors have overlooked. Every test has a *scope*, the range of cases to which it is applicable, as well as a *purpose*, for while some are intended to make an exhaustive distinction between *F*s and non-*F*s, others are purely negative, designed only to rule out some of the most significant non-*F*s. By way of illustration, although our ‘or’-rule is much the same as Dummett’s, the corresponding tests are very different (pace them p. 73), both in scope and purpose. His tests apply to all noun phrases, definite and indefinite alike, and are negative, designed to rule out some of the latter from being singular terms (in this case, the word ‘everything’). By contrast, our test applies only to definite phrases, aka terms, and its purpose is to make an exhaustive distinction between semantically singular terms and the rest: see our 2016, p. 306. Lastly, there is the familiar distinction between the two kinds of counterexample, false positives (non-*F*s that pass the test) and false negatives (*F*s that fail it).

Now to Snyder & Shapiro’s argument, beginning with its premise. Because it is not a term, ‘some policeman’ is outside the scope of our test. Its behaviour is therefore irrelevant and the objection does not even get off the ground. Granted, it is within the wider scope of Dummett’s test, but that does not help matters. For although it now counts as a counterexample, it is a false positive, and as such is irrelevant to a negative test like Dummett’s. Snyder & Shapiro claim that their point about ‘some policeman' was made by Dummett himself and later Bob Hale (1994), but they are making this up, even attributing to Dummett a nonexistent book, *The Justification of Deduction*, complete with fictitious publication details. In truth, *nobody* offered counterexamples of the 'some policeman' sort to Dummett's 'or'-test, and there is a simple explanation for this: it was the third in a series of negative tests, and 'some policeman' had already been ruled out by the preceding 'and'-test; see Dummett 1973, p. 61.

Things are no better when one moves on to the inference at the heart of their argument, 'But then …' For once one distinguishes the two kinds of counterexample, it boils down to this: 'If a test admits false positives, it may admit false negatives too'. It is only this massive non sequitur that allows Snyder & Shapiro to avoid engaging with the awkward fact that 'the pair' fails our test.

3. Pseudo-singularity means validating numerous invalid inferences

To illustrate their logical problems for pseudo-singularity, Snyder & Shapiro offer a 'collector's deck of 500 miniature baseball cards, each packaged in plastic' (p. 74), and list four inferences, (23a–d), related to this scenario. They claim that all four are invalid but that our approach makes them provably valid within our own system of plural logic. They see this as their most substantial criticism.

Before tackling the inferences, we need to address the assumption on which they all rely, namely, that 'the deck' is a pseudo-singular term denoting just the relevant cards. To explain why Snyder & Shapiro attribute this analysis to us, we must spell out their conception of our project. Since it would have saved them exegetical trouble, they must have wished that we had claimed that *all* group terms simply refer to their members. But we did not, for we were not interested in the general run of groups. Our aim was a proper understanding of set theory, and it is to their credit that they draw attention to our much narrower remit (p. 69). Accordingly, they announce a policy of using only examples cited by us, or minimal variations of them. This is where their collector's deck comes in, for they call it a minimal variation on our example of a suit of playing cards. But this is far from the truth. We took our cards to be abstract objects, types not tokens, so there was nothing more to a suit than its thirteen cards.

The contrary holds for Snyder & Shapiro's all-too-concrete deck. For instance, if the condition of the plastic film deteriorates the value of the deck will plummet, though the cards are unchanged. They might have expected something of the sort, for decks and cards have been a prominent feature of the literature ever since Godehard Link's warning against taking terms for them to be co-referential, on the grounds that the use of a collective term like 'the deck of cards' is 'indicative of connotations being added enough for it to refer to a different individual' (1983, p. 304).

Since their chosen example violates their own policy, one could stop there, but it is worth carrying on, to see how things stand with their inferences (23a–d). It turns out that in every case it is Snyder & Shapiro's argumentation which is faulty, as we now show.

(*23a*) *There is exactly one deck* ⊨ *The deck is a card.*

Their proof makes use of a singularity predicate which we defined in our book (p. 111) thus: $Sa =_{df} \forall \mathbf{x}(\mathbf{x} \preccurlyeq a \rightarrow \mathbf{x}=a)$. In English, Sa means that any thing(s) among a is/are identical to a, in which case Sa is true iff a either denotes a single individual or is empty. The key step in the proof is their inference from 'there is exactly one deck' to S(the deck). But the conclusion is false, since they are supposing that 'the deck' denotes 500 individuals. It is plain that the problem is theirs, not ours, because their inference is fallacious. The sense in which it is true that there is exactly one deck can be spelled out as we did in our book (p. 247), defining a plural version $\exists_1\mathbf{x}$ of the quantifier $\exists_1 x$ by substituting plural for singular variables in the standard definition. Snyder & Shapiro are well aware of this, since they explain our definition earlier in their piece (p. 70). So it is odd that they fail to see that 'there is exactly one deck' does not entail S(the deck). Our conjecture is that they have confused 'there is exactly one deck' with 'there is exactly one lot of things in the deck', i.e. confused $\exists_1\mathbf{x}$ deck($\mathbf{x}$) with $\exists_1\mathbf{x}(\mathbf{x} \preccurlyeq \iota\mathbf{y}\text{deck}(\mathbf{y}))$. The latter, unlike the former, does entail S(the deck), but it is of course not true in their scenario.

(*23b*) *The cards are packaged in plastic* ⊨ *The deck is packaged in plastic*.

There is nothing wrong with their formal work here. The error lies in a fallacy of equivocation before the inference is translated into the language of the system. The predicate 'packaged in plastic' is open to many readings, and among others there is a vast difference between being shrink-wrapped in plastic film for permanent preservation and being temporarily packaged in bubble wrap for delivery. Snyder & Shapiro's presentation invites the former reading for the premise and the latter for the conclusion. Once the inference is properly disambiguated, i.e. in the same way for both, for example as *The cards are packaged in plastic, each card separately* ⊨ *The deck is packaged in plastic, each card separately*, it is seen to be perfectly sound.

(*23c*) *The deck is huge* ⊨ *Each card is huge*.

(*23d*) *Every one of the cards is tiny* ⊨ *The deck is tiny*.

By common consent, (23c) and (23d) raise the same issues, so it is enough to tackle the former. Its assessment turns on Snyder & Shapiro's claim that 'huge' is distributive. Though this is quite untrue (cf. 'the enemy's losses were huge'), a footnote reference reveals after some digging that they are relying on the authority of Roger Schwarzschild (2011) that there is a lexical category of 'stubbornly distributive' predicates like 'large' such that 'the boxes are large' does not even admit a collective reading; and their 'huge' is meant to be similar. Looking at other linguists, however, we find the ultra-empirical investigations of Gregory Scontras and Noah Goodman (2017), who conclude 'At the very least, the results of our experiments demonstrate that stubborn distributivity should not (indeed, cannot) manifest in terms of an all-out prohibition against collective interpretations.' (p. 307) Accepting Scontras and Goodman's results, we reject Snyder & Shapiro's proof.

4. Superplural reference

Snyder & Shapiro conclude by attributing to us these jointly inconsistent claims (p. 76)

(T1) Singular DGNs [group terms] are pseudo-singular terms.
(T2) Plural DGNs [group terms] realize superplural reference.
(T3) Superplural reference is not realized by the plural morpheme.

It is bewildering that they should attribute (T3) to us, since only a few pages earlier they cited our example of 'the authors of multivolume classics on logic', with its plural 'authors', and reported us as claiming that such plurally exhaustive descriptions achieve 'what is commonly known as superplural reference' (p. 70). How could they forget their own words so soon?

Their justification for attributing (T3) is a quote from our book, that English 'is not adequate to the apparatus of superplural quantification, since it has no superplural forms of pronouns or common nouns, no 'theys' and 'thems' to follow 'they' and 'them', and no 'thingss' or 'mens' to follow 'things' and 'men'' (p. 138). In fact, what this supports is of course not (T3) but 'Superplural reference is not realized by *iterating* the plural morpheme', which is both true and harmless.

We are sorry that we cannot offer Snyder & Shapiro any better score than 'nul points'. But we are grateful to them for providing the incentive to think though topics we had not previously treated properly or at all, leading to our forthcoming 'Pseudo-singularity, groups and sets'. And we look forward to their defence of singularism (p. 77, n. 9), which promises a semantics for plurals that treats plural terms like 'the students' as denoting 'a single, collective entity' (p. 67), while simultaneously preserving 'linguistic appearances' (p. 76). Apparently, though pseudo-singularity is untenable, pseudo-plurality rules!

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