

Trespassers and Existential Import*

It has been taken for granted that a certain kind of case can be used to argue for a received view about quantifiers and existential import. We beg to disagree.

Standard logic textbooks have it that existential import for quantified statements is determined by *quantity*: existence is expressed by the particular quantifier ‘some’.¹ Accordingly, ‘ \exists ’, the translation in predicate calculus of ‘some’, is commonly called the existential quantifier. In contrast,

(K). The universal quantifier has *no* existential import.

(K) is a keystone of post-Fregean predicate logic. From (K), as generations of students have been taught, it follows that, generally,²

(S). A universally quantified statement *does not* entail the corresponding particularly quantified statement,

contrary to the traditional view that an I-statement in categorical syllogism, e.g., (1b), is entailed by the corresponding A-statement (1a).

(1). (a). All men are bald.

(b). Some men are bald.

This is because (K) calls for the conditionalizing of universal statements. In standard quantification theory, (1a) is translated as ‘ $\forall x(Mx \supset Bx)$ ’, whereas (1b) as involving a conjunction, i.e., ‘ $\exists x(Mx \& Bx)$ ’, and thus not derivable from (1a).

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¹ Thompson (1953), Prior (1962, 1967) and Read (2015) argue that in Aristotle’s logic, existence is determined by quality, not by quantity. Arguably, William of Ockham, John Buridan (1966: 91-92) and Lewis Carroll (see Bartley (1977: 232-238)) also advocate the quality view. In contrast, most modern logicians believe that existence is determined by quantity. See Church (1965), Mulder (1996), and Horn (1997: 157).

² ‘Generally’ is in order because of such exceptions as ‘ $\forall xFx$ ’ entailing ‘ $\exists xFx$ ’.

A particular type of case in support of (K) involves a statement in a certain kind of *regulative* context in which it expresses a warning, promise, prohibition, or law. Perhaps the most representative and commonly cited example is one dating back to F. H. Bradley's *The Principles of Logic*.³

(2). All trespassers will be prosecuted.

(or 'All persons found trespassing on this ground will be prosecuted', as Bradley puts it.) It is undeniable that (2) may be true even when no one trespasses. The purpose of warning people of (2) is precisely to *secure* the emptiness of its subject term. It being fully heeded will and should not thereby render the warning false!

Let's call this the Trespasser Case, in which a warning is used to illustrate (K).⁴ In what follows we shall show why the conventional wisdom that the Trespasser Case in effect proves (S) via (K) is, in fact, no wisdom at all. We take issue with the conventional view in two ways.

The first has to do with how the corresponding particularly quantified statement, (2*), should be read.

(2*). Some trespassers will be prosecuted.

(2), read as an illustration of (K), constitutes a counterexample to the traditional claim that (2) entails (2*), thus proving (S), because (2*) on the most straightforward reading, asserts that there exists (or will exist) at least one trespasser who will be prosecuted. So, if no one trespasses,

³ Bradley (1883: 49) holds that '[t]he universal judgment is thus always hypothetical. It says "Given one thing you will then have another," and it says no more.' Russell (2010: 72) explicitly mentions and argues for this reading of universal statements. Works or textbooks that allow the trespasser-example (or its variants) to trespass with impunity include Salmon (1973: 48-49), Smith (2003: 214), Peters and Westerståhl (2006: 125), Bassham et al. (2011: 228), Copi, Cohen and McMahon (2014: 197), Sinnott-Armstrong and Fogelin (2015: 161), and Arthur (2017).

⁴ The Trespasser Case has its special importance because, as the argument is meant to show, (2) does not even *presuppose* the existence of trespassers. See Strawson (1950, 1952, 1964), Hart (1951), Leonard (1956), Levinson (1983), Lappin and Reinhart (1988), Horn (1997), Abusch and Rooth (2004), and Geurts (2008) for relevant discussion of existential import as presupposition. In this paper, we will put aside issues to do with presupposition.

that would make (2) true, as explained above, but (2*) false. Thus (S). The problem with this familiar argument is that if it is to do such work, (2) and (2*) must be used in *different* ways, thus involving a shift in context. That is, in order to be false when there is no trespasser, (2*) needs to be used as essentially *stating* (or *foretelling*) *an empirical fact*, and in contrast, in order to be true when no one trespasses, (2), as the Trespasser Case has it, needs to be used as a *warning*. To put it reversely, the argument would need to require that (2*) be construed also as a warning, on pain of shifting the context. It is no longer obvious, however, that, so construed, (2*) is false when no one trespasses.

Here we anticipate two possible objections. First, one might contend that as a warning (2) fails to have a truth-value. Such an objection, however, would only undermine the argument for (S), since the Trespasser example would no longer be one of a true A-statement with a corresponding false I-statement. Or one might raise another, and more fundamental, objection that there simply cannot be a regulative construal of (2*) that is sensible.

This brings us to the second way in which we want to take issue with the conventional wisdom. We shall argue not only that one can make sense of the notion of an I-statement functioning as a warning. More importantly, we shall argue that the Trespasser Case fails to support the view that existential import for quantified statements is determined by quantity because to the extent that the case shows that universal quantifier has no existential import, i.e., that (K) is true, it can also be used to show that the particular quantifier has no existential import.

Consider the following case. Joe is about to put up a sign displaying (2*) outside his property. He intends to forewarn people of what might happen to them if they trespass, not to foretell any future event or in any way the existence of future trespassers. He warns, in other words, that at least one or more of those who trespass will be prosecuted, hoping that as a result

no one will.⁵ So, Joe's warning does not entail the existence of any trespasser. The context is a regulative one, as it is in the Trespasser Case.

One may object that (2*) is in fact a restricted version of (2) and, therefore, implicitly universal. Those trespassers that Joe is prepared to prosecute, if any, will get prosecuted in virtue of their having some feature X, perhaps of his choosing, say, being a Hegelian or a nocturnal violator. So, any warning like (2*) can always be rewritten as 'All trespassers who are X will be prosecuted'.

There need not be any such X. Or we can stipulate that Joe means his warning to be just that – about at least some of the possibly existing trespassers. But even if Joe has such an X in mind, it need not be part of what his warning *says*.

As to what sorts of reasons Joe may have to favour (2*) over (2) we could only guess. Perhaps Joe somehow thinks that (2) sounds like an empty threat, as he thinks no one would believe that he would try to deal with every trespasser, and he dislikes sounding empty.

Or perhaps it is because a warning worded as (2) has served so perfectly well for years that it makes Joe curious whether 'some' will make a difference. Joe is yet to see if it will, but there is no logical reason why it must. There may be non-logical reasons to think that it will, but this has no significance for our purposes, for one is as right to say with respect to (2*) as with respect to (2) that the statement is true, even though no one trespasses.

Or perhaps it is just a quirk on Joe's part. Joe dislikes sweeping statements. Or perhaps... Whatever Joe's reason is, what he is going to put up is as much a warning as (2) is.

⁵ Lest we seem to some to concede that a use of (2*) is unnatural, it should be pointed out that it is used in order to minimize departure from the Trespasser Case. Legal/social reality may require a different, more natural or realistic statement. As the editors have pointed out, there can be more natural sounding examples, for instance, 'Some trespassers will be put in jail, and some will be shot on the spot', which should not be taken as entailing the existence of such trespassers.

We have shown that there is no logical reason against particularly quantified warnings whose purpose, like that of (2), is to secure the emptiness of their subject terms. So, *if* the Trespasser Case shows that the universal quantifier has no existential import, i.e., (K), it also shows that *in the same context*

(K*). The particular quantifier has no existential import.

The question arises immediately as to how existential import should be expressed in predicate calculus if (K*) is true. Whatever the answer is, the fact remains that the Trespasser Case does not support (S). In the regulative context, whenever the quantified subject term is empty, the A- and I-statements are both true. The Trespasser Case and its variants can lend no special support to (S), despite the widely held opinion to the contrary over the past century or so.

Here an important caveat is in order. We have proposed that (2*), like (2), can coherently be construed as regulative. Such a proposal does not mean that our argument against the Trespasser Case for (K) *must* read (2*) as non-assertoric, or non-truth-apt. Imagine that Peter, who knows that Joe is serious about his rule, utters (2*) so that John's attention will be drawn to it. It is clear that Peter uttered, truly, a sentence with assertoric force in the sense that there really is such a rule as set up by Joe. In such a case Peter's use of (2*) clearly does not have existential import. The same applies if what is in question is (2). So, how one accounts for the illocutionary force of such regulative use of (2) or (2*) will not affect our arguments against the usefulness of the Trespasser Case for the received view.

Since we agree that the Trespasser Case shows that the universal quantifier has no existential import, we agree that it also shows that (K*) is true. (K*) proves too much, we expect one to say, as it calls for drastic revision of quantification theory as we know it. As we see it, if what we have said is on the right track, there indeed should be a place for a *purely*

quantitative particular quantifier, as distinguished from the existential quantifier, *at least* in regulative (and possibly other) contexts.⁶ If this means that we should rethink the doctrine that existential import for quantifiers is determined by quantity, we are well-advised to do so.

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⁶ The purely quantitative account need not sever existence completely from the particular quantifier, or so some have argued. One may still, as suggested by McGinn (2000: 35-36), hold that the particular quantifier carries existence import as a matter of implicature, just as the case with the universal quantifier, as suggested by Karttunen (1974: 53), Abusch and Rooth (2004: 12), Peters and Westerståhl (2006: 124-125), and Arthur (2017: 289), who argue that universal statements conversationally implicate existence. See also Crane (2013) for his more radical view that even 'there is/are' does not entail existence.

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