

## Naming the concept *horse*

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**Abstract** Frege’s rejection of singular reference to concepts is centrally implicated in his notorious paradox of the concept *horse*. I distinguish a number of claims in which that rejection might consist and detail the dialectical difficulties confronting the defense of several such claims. Arguably the least problematic such claim—that it is simply *nonsense* to say that a concept can be referred to with a singular term—has recently received a novel defense due to Robert Trueman. I set out Trueman’s argument for this claim, identifying and remedying some omissions and errors of formulation therein. I then develop a response to the argument by showing, *pace* Trueman, that it is possible—and how it is possible—to express identities between objects and concepts.

**Keywords** The concept *horse* paradox · Frege · Trueman · Concepts · Singular reference

... *Coriolanus*  
*He would not answer to: forbad all names;*  
*He was a kind of nothing, titleless,*  
*Till he had forged himself a name o’ the fire*  
*Of burning Rome.*  
*Coriolanus, Act V, Scene I*

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Frege's concept *horse* paradox has enjoyed a swell of interest in recent years.<sup>1</sup> One of the highlights of this latest tranche of research on the paradox is Robert Trueman's 'The concept *horse* with no name' (Trueman 2015). Trueman presents an impressive and innovative defense of Frege's rejection of singular reference to concepts—a defense that, importantly, forgoes appeal to Wright's ill-fated Reference Principle, which has played such a central role in discussions of the justification of Frege's position on the topic.<sup>2</sup> The rejection of singular reference to concepts is, of course, centrally implicated in the constellation of problems gathered under the rubric 'the concept *horse* paradox'.<sup>3</sup> I shan't rehearse those problems in any detail here. My main concern will be with what can be said—and, in particular, with what Trueman has said—in defense of Frege's rejection of singular reference to concepts.

## 1 Frege against singular reference to concepts

First, though, some remarks are in order concerning what that rejection amounts to. It strikes me that there are, in fact, four claims discernible in Frege's writings in each of which his rejection of singular reference to concepts might be taken to consist. The first is that reference to a concept with a singular term is *impossible* ('the impossibility thesis'): concepts are *unnameable*. Following Frege in counting something an *object* just in case it can be the referent of a singular term, and in counting something a *concept* (or *property*) just in case it can be the referent of a predicate, the impossibility thesis can alternatively be formulated as follows: concepts are not objects; or again as follows: singular terms and predicates cannot be pairwise co-referential. The impossibility thesis is, I think, the view on the matter standardly attributed to Frege, and on good textual grounds. We find it clearly affirmed in the following passage, for example:

... the phrase 'is a concept' requires a proper name as grammatical subject; and so, strictly speaking, it requires something contradictory, since *no proper name can designate a concept*... (Frege 1979b, p. 178, my emphasis)<sup>4</sup>

Yet there is reason to doubt that the impossibility thesis is Frege's most considered position on the matter. What immediately follows the passage just quoted, for example, appears to amount to a cautious recantation of the impossibility thesis just affirmed:

<sup>1</sup> Notable recent contributions to the topic include Hale (2010), Hale and Wright (2012), Hale (2013), Hale and Linnebo (TS), Jolley (2007), MacBride (2011), Noonan (2006), Proops (2013), Rayo (TS), Textor (2010) and Trueman (2015).

<sup>2</sup> A powerful case against the Reference Principle is presented in Oliver (2005).

<sup>3</sup> For an excellent discussion of the distinguishable difficulties see Proops (2013).

<sup>4</sup> I remind the reader that all singular terms count as proper names on Frege's use of 'proper name' (indeed he uses 'proper name' (*Eigenname*) interchangeably with 'singular term' (*Einzelname*): see Frege (1997a, p. 172). The expression 'unnameable' in this essay is to be understood as a cognate of Frege's 'proper name': something is unnameable just in case it cannot be the referent of a Fregean proper name.

... or perhaps better still, something nonsensical. (ibid.)

Better than saying that singular reference to concepts is impossible, Frege ventures, is to say that *there is no sense to be made of* reference to a concept with a singular term. This latter is the second claim I have in mind: it is *nonsense* to say that a concept might be the referent of a singular term, nonsense to say that a concept is an object ('the nonsensicality thesis'). The third is that it is impossible to *think* of a concept as being the referent of a singular term—impossible to suppose that a concept is an object ('the unthinkability thesis'). This follows from Frege's general pronouncement that

... concepts cannot stand in the same relations as objects. It would not be false, but impossible to think of them as doing so. (Frege 1997a, p. 175),

since to think of a concept as being the referent of a singular term *would* be to think of a concept as standing in a relation in which objects stand. The fourth claim is that it is impossible to *state* that a concept is an object ('the inexpressibility thesis'). In 'On Concept and Object', Frege insists that

... what is suitably stated of the concept does not suit the object ... I do not want to say it is false to state concerning an object what is stated here concerning a concept; I want to say it is impossible, senseless, to do so. (Frege 1997c, p. 188–9, translation altered)

Since, in particular, it is possible to state concerning an object that it *is* an object, it seems clear that Frege deemed it impossible to state concerning a *concept* that it is an object. The import of 'senseless' in this passage is made more explicit in an earlier draft of the paper:

... a sentence which tried to express such a thing [i.e. which tried to do the impossible and state concerning a concept what can be stated concerning an object] would be absolutely devoid of sense;... (Frege 1979a, p. 109)

Since 'A concept is an object' is presumably just such a sentence, we have here a further affirmation of the nonsensicality thesis.

Of these four theses, each of which constitutes a position on which singular reference to concepts is rejected, three face an exigent threat of self-stultification. The threat is perhaps most conspicuous in the case of the inexpressibility thesis. Saying 'It is impossible to state that a concept is an object' is liable to be compared to saying out loud (and with correct pronunciation) 'I cannot pronounce the word "banana"'.<sup>5</sup> Merely voicing the thesis appears to expose it as false. A similar problem attends the unthinkability thesis: if we are even to understand the thesis, we must be in a position to apprehend just *what* it is that is being claimed unthinkable, and such apprehension threatens to demand the very thinkability of the subject of the claim. The problem is that identified in the preface of the *Tractatus*: 'in order to set a limit to thinking we should have to be able to think both sides of this limit (we should therefore have to be

<sup>5</sup> The example is Peter Sullivan's (Sullivan 2002, p. 76), though he deploys it to illustrate a different point.

able to think what cannot be thought)' (Wittgenstein 1974, p. 27). The impossibility thesis faces a charge of self-stultification too. In this case the problem is the one acknowledged by Frege in our first quotation above: 'ξ is a concept' requires a singular term to fill its argument place; it is extremely natural to suppose that where a predicate truly applies to something, there could, in principle, be a true sentence consisting of an expression referring to that thing in the argument place of that predicate; but in that case, anything to which 'ξ is a concept' does truly apply is something to which a singular term can, in principle, refer—i.e. an object; but 'ξ is a concept' truly applies to something just in case it is a concept; so anything that is a concept *is* an object; granted that there *are* concepts, as Frege maintains, it follows that it is false that no concept is an object. This kind of problem is, of course, one distinguishable dimension of the concept *horse* paradox (Proops 2013, p. 84–85).

The nonsensicality thesis stands out on this count, I submit: it is innocent of self-stultification. For it must be understood as a claim *about a certain linguistic expression*, 'a concept is an object', and as being to the effect that that expression lacks sense—i.e. expresses no thought (this is the relevant notion of nonsensicality in the present context). (Better: it must be understood as claim about a cluster of linguistic expressions—'a concept is an object', 'a concept can be the referent of a singular term', 'a singular term can co-refer with a predicate', etc.—that are, by virtue of our semantic stipulations, possessed of the same sense if possessed of sense at all.) As Wittgenstein stressed, '[w]hen a sentence is called senseless, it is not, as it were, its sense that is [being claimed] senseless' (Wittgenstein 2010, p. 147e); it is the sentence itself. Accordingly, when we formulate the thesis as 'It is nonsense to say that a concept is an object', the sentence 'a concept is an object' therein must be understood as mentioned and not used. Mentioned nonsense, as opposed to used nonsense, is quarantined: it does not infect its surroundings with nonsensicality. So the thesis can simply be true, much as it can simply be true to say 'Finally Carroll said "And the mome raths outgrabe"'.<sup>6</sup> Whereas the inexpressibility of a thought threatens to render it inexpressible *that* that thought is inexpressible, so that one's success in stating that that thought is inexpressible would confute that very statement, and whereas the unthinkability of a thought threatens to render it unthinkable *that* that thought is unthinkable, so that one's success in supposing that that thought is unthinkable would confute that very supposition, the nonsensicality of a sentence, by contrast, does not risk rendering it nonsensical to say *that* that sentence is nonsensical; so one's success in sensefully saying so does not confute one's saying.<sup>7</sup>

<sup>6</sup> See also Moore (1997, p. 157).

<sup>7</sup> The two uses of 'threatens' in this sentence may look like undue caution. One reason I think caution is due, however, is that there are ways of referring to and apprehending thoughts that do not require the expressibility or thinkability of those thoughts. Suppose, for example, that the truth fathomed by Siddhārtha Gautama on the night of his enlightenment is inexpressible and unthinkable (at least to the benighted likes of us). *That* that truth is inexpressible and unthinkable, though, need be neither inexpressible nor unthinkable (even to us), providing that truth can be referred to, and apprehended under, the definite description in the preceding sentence. It is quite unclear, however, how this expedient for making inexpressibility claims and unthinkability claims respectively expressible and thinkable (even if true) could be used to surmount the charge of self-stultification facing Frege's inexpressibility and unthinkability theses above.

## 2 Trueman against singular reference to concepts

If one is going to argue for a Fregean rejection of singular reference to concepts, there are, then, *prima facie* grounds for arguing for it in the form of the nonsensicality thesis. This is what Trueman does. The conclusion of his paper is ‘that it is nonsense to say that a property is an object’ (Trueman 2015, §8). (Trueman favours ‘property’ over ‘concept’; we’ll switch to the former in what follows to accord with his formulations.) Interestingly, though, he sets about establishing that conclusion by arguing, in the first instance, for the inexpressibility thesis: we are prevented, in principle, he argues, ‘from so much as expressing the thought that a property is an object’ (Trueman 2015, §3). If, for the moment, we prescind from the self-stultification problem afflicting it, the inexpressibility thesis does look fit to serve as intermediate conclusion en route to the nonsensicality thesis. For suppose that, contrary to the nonsensicality thesis, it *does* make sense to say that a property is an object—i.e. that one does succeed in expressing a thought in saying so. Whatever thought is thereby expressed is, trivially, not inexpressible; but, ‘It is impossible to express that a property is an object’ says of that thought that it is inexpressible, and is thus false. If ‘It is impossible to express that a property is an object’ is false, then it is not impossible to express that a property is an object. So if it makes sense to say that a property is an object, it is possible to express that a property is an object. By contraposition, if it is not possible to express that a property is an object, then it is nonsense to say that a property is an object: the inexpressibility thesis implies the nonsensicality thesis.<sup>8,9</sup>

However, even ignoring the *self*-stultification of the inexpressibility thesis, we are now confronted with the fresh oddity that the inexpressibility thesis is stultified by the conclusion for which it serves as lemma—the nonsensicality thesis: after all, ‘a property is an object’ is *used*, not mentioned, in ‘it is impossible to express that a property is an object’; so, if the former is nonsense, the latter is too. But if the latter is nonsense, how can it serve as a lemma en route to the nonsensicality thesis? Trueman acknowledges that he is in ‘a precarious dialectical position’ (Trueman 2015, §8). He denies that his position need be ‘ultimately unstable’, however. The argument is to be understood, according to Trueman, as an attempt to show his opponents—those who think it does make sense to say that a property is an object—*by their own lights* that it does not make sense. It need not, to that end, succeed in

<sup>8</sup> Cf. Moore (1997, p. 198).

<sup>9</sup> The unthinkability thesis also features in Trueman’s paper. Like the nonsensicality thesis, it is affirmed as a consequence of the inexpressibility thesis: “unless we can find a way of expressing Benno’s thought [the thought that a certain concept is an object], we cannot suppose that it might actually be true” (Trueman 2015, §4). The inference of the unthinkability thesis from the inexpressibility thesis is mediated by a ‘ground rule’ Trueman lays down (Trueman 2015, §4) of not entertaining the suggestion that the thinkable outstrips the expressible. Though my main focus in this paper will be with Trueman’s argument for the inexpressibility thesis as intermediate conclusion en route to the nonsensicality thesis, what I say will equally bear on whether Trueman has established the unthinkability thesis via the same route. Incidentally, Trueman ascribes the unthinkability thesis to Frege, claiming that ‘he was clear’ that this thesis was ‘the proper formulation of his position’ (Trueman 2015, §4). I suggest that the brief survey of relevant passages in Sect. 1 does not in fact disclose a single, official formulation of Frege’s position.

showing this by the lights of those sharing his view, who indeed need not (and as we've seen, cannot) even accept the meaningfulness of the argument.

For what it is worth, I'm sympathetic to Trueman's response. We *should*, I believe, recognize the legitimacy of arguments that are only intelligible by the lights of those on whose position they are an attack. Such arguments are, I think, just extreme examples of good ad hominem arguments: arguments whose cogency depends upon assumptions accepted by opponents of, but not proponents of, the view they are intended to support. In any case, it is not with the ultimate stability of Trueman's dialectical position that I shall take issue here. Rather, my concern is to argue that Trueman does *not* show, even by his opponent's lights, that it is impossible to express that a property is an object. Let us turn, then, to the details of the argument that purports to show that.

## 2.1 The basic argument

Suppose that it is possible, in principle, to express the general thought that a property is an object—or equivalently, that a property is identical to some object. (Throughout, 'a property is an object' is to be understood as an existential generalisation—i.e. as 'some property is an object'—rather than a universal generalisation or a generic; similarly for its equivalents.) In that case, it must also be possible, in principle, to express the thought (call it *Benno's thought*, in honour of Frege's critic) that a particular property—say, the one 'ξ is a horse' refers to—is identical to a particular object—say, the one 'the property *horse*' refers to. Benno's thought is an identity, so the natural way to attempt to express it is by use of the identity predicate, 'ξ = ζ'. But while 'the property *horse*' can be introduced into an argument place of the identity predicate, 'ξ is a horse', whose referent we wish to identify with the property *horse*, cannot be introduced into the remaining argument place. The point is not, Trueman is keen to stress, merely that the parochial grammatical strictures of English forbid substituting 'ξ is a horse' for 'ξ' in 'ξ = the property *horse*'. Rather, the kind of *sense* possessed by 'ξ is a horse', qua predicate, is such that, unlike a singular term, it cannot combine solely with 'ξ = the property *horse*', given the kind of sense *it* has, to yield the expression of a thought. This, Trueman thinks, is just a consequence of the general consideration that the contrasting kinds of sense respectively possessed by terms and predicates prevent them from being substituted for one another.

If we are to express Benno's thought, then, we must complete 'ξ = the property *horse*' with a singular term. Clearly, we must select one that co-refers with 'ξ is a horse'. Let '*a*' be whichever such term we select. The problem, however, Trueman claims, is that even if '*a*' indeed co-refers with 'ξ is a horse' (and to assume that it could not, or that it is nonsense to say that it does, would be to beg the question in the present context), '*a* = the property *horse*' will nevertheless fail to express Benno's thought. The reason is that '*a*', qua singular term, will not *present its referent* in the right way—namely, *as a property*, something to which predicate reference can be made. Trueman illustrates this point by way of comparison with the following case. Suppose that there is a philosopher, the Misguided Metaphysician, who maintains that the number 3 is identical to Julius Caesar. The Misguided

Metaphysician attempts to express that view not with the sentence ‘Julius Caesar = 3’ but rather by saying ‘ $2 + 1 = 3$ ’. The natural verdict is that the Misguided Metaphysician’s attempt to express her claim in this way is unsuccessful. Moreover, her attempt would be unsuccessful even if she were right, and ‘ $2 + 1$ ’ did indeed refer to Julius Caesar. If she were right, her utterance would say *de re* of Julius Caesar that he is identical to the number 3; but her utterance would nevertheless fail to express the thought that Julius Caesar is identical to the number 3. This is witnessed by our being able to accept what the Misguided Metaphysician says without agreeing with her that Julius Caesar and the number 3 are identical. Trueman’s diagnosis of the failure is that ‘ $2 + 1$ ’, even if it refers to Julius Caesar, does not *present its referent* as Julius Caesar. The attempt to use the sentence ‘*a* = the property *horse*’ to express Benno’s thought is comparable, Trueman thinks, to the Misguided Metaphysician’s attempt to express her thought using ‘ $2 + 1 = 3$ ’. Benno’s thought is that a certain property—something that can feature as the referent of a predicate—is identical to a certain object. But the singular term ‘*a*’, even if it succeeds in picking out the intended property, does not present its referent as something to which predicate reference can be made. Thus, while ‘*a* = the property *horse*’ may succeed in saying *de re* of the referent of ‘ $\xi$  is a horse’ that it is identical to a certain object, it nevertheless fails to express Benno’s thought. In order, Trueman thinks, to present the property we wished to identify with an object *as* a property, we would have to refer to it with a predicate. But we cannot both do this and employ the predicate ‘ $\xi =$  the property *horse*’ to express Benno’s thought. Quite generally, we cannot do this and employ the identity sign ‘ $\xi = \zeta$ ’, or any expression with the same sense, to express Benno’s thought: ‘ $\xi = \zeta$ ’ requires—once again, as a matter of sense—that each of its argument places be supplied with a singular term. But then how *can* Benno’s thought be expressed? Conclusion: it cannot. And if it cannot, nor can the general thought that a property is an object.

## 2.2 Can’t terms present their referents as properties?

Trueman considers two broad kinds of objection to this argument. The first is to the effect that a singular term *can* present its referent as a property, so that Benno’s thought can after all be expressed by use of the identity predicate. The second is to the effect that Benno’s thought admits of expression without use of the identity predicate, by some means that allows for the use of ‘ $\xi$  is a horse’ itself to pick out the property to be identified with an object, rather than a surrogate singular term. I shall, in fact, ultimately push versions of both these objections against Trueman’s argument, though my version of the second objection will be quite different from the version Trueman treats and will, in a sense, be parasitic upon my defense of the first objection.<sup>10</sup> Let us then, give substance to the first objection and hear Trueman’s response to it.

<sup>10</sup> The version of the second objection Trueman discusses consists in the proposal that Benno’s thought can be stated by means of a *lopsided* analogue of the identity predicate, ‘ $\Phi \equiv \xi$ ’, admitting a predicate into one argument place and a term into the other. I shan’t pursue this proposal here.

Two terms that do appear to present their referent as a property, and are excellent candidates for co-referring with ‘ $\xi$  is a horse’, are ‘the referent of “ $\xi$  is a horse”’ and ‘the property *horse*’. It appears that the latter quite explicitly presents its referent as a property, while the former presents its referent as a property—something to which a predicate *can* refer—by presenting it as something to which a particular predicate *does* refer. If we substitute either for ‘*a*’ in ‘*a* = the property *horse*’, won’t the result suffice to express Benno’s thought? For closely related reasons Trueman thinks neither expression is fit to task.

I shall focus on ‘the referent of “ $\xi$  is a horse”’. This looks like a singular term, one naturally analysed as the result of using a definite description operator to bind a term variable in the argument place of the predicate “‘ $\xi$  is a horse” refers to  $\zeta$ ’, where this predicate is in turn the result of inserting the predicate name “‘ $\xi$  is a horse”’ into the first argument place of ‘ $\xi$  refers to  $\zeta$ ’.<sup>11</sup> The problem with this analysis, Trueman thinks, is that ‘refers’, used when speaking of *predicates* referring, should not be understood as the very same first-level dyadic predicate, ‘ $\xi$  refers to  $\zeta$ ’, used when speaking of *terms* referring. The reason has to do with the possibility of specifying, by disquotation, what an expression refers to. Disquotation sentences like

(i) The referent of ‘Julius Caesar’ = Julius Caesar

capture, Trueman maintains, something essential about reference—roughly, that when we pass from using a referring expression to talking explicitly about what that expression refers to, we continue to talk about the same thing. So if we are to count predicates as referring expressions,<sup>12</sup> it must correspondingly be true that when we pass from referring to something using a predicate to explicitly speaking of what that predicate refers to, we continue to talk about the same thing; and it must be possible to capture this for any particular predicate, as (i) captures this for the term ‘Julius Caesar’. It must be possible, that is, to furnish a disquotation sentence that is to ‘ $\xi$  is a horse’, for example, as (i) is to ‘Julius Caesar’. However, if ‘refers to’ in discourse about predicate reference is to be understood as ‘ $\xi$  refers to  $\zeta$ ’, Trueman thinks, it would not be possible to furnish any such sentence. For in that case, ‘the referent of “ $\xi$  is a horse”’ would indeed be the singular term it appears to be, but then in order to state an analogue of (i) for ‘ $\xi$  is a horse’ we would have to express the thought that something referred to with that singular term is identical to something referred to with a predicate, ‘ $\xi$  is a horse’. That is, we would have to express an object-property identity. So we are confronted once more with the above argument that this cannot be done. We cannot use the predicate ‘ $\xi$  is a horse’ to pick out the property whose identity with a certain object we wish to express: the sense of the identity predicate prohibits that. So we would have to resort to the use of a co-

<sup>11</sup> I shall assume, in Fregean spirit, that if ‘the referent of “ $\xi$  is a horse”’ is the definite description it appears to be, it is a referring expression and is not to be analysed in Russellian fashion.

<sup>12</sup> It is, of course, far from uncontroversial that we *are* to count predicates as referring expressions; but I shall follow Trueman (2015, §2) in assuming that, in some significant sense, at least some predicates do refer. We will shortly see that Trueman himself presents an argument to the effect that, in another significant sense, predicates do *not* refer.



referring singular term in its stead; but no singular term we choose will be fit for the expression of our target thought: even if the term we select refers to the property, it will not present its referent as a property, as would be required to express the thought.

The possibility of giving an analogue of (i) for a predicate can only be secured, Trueman thinks, if the relational expression for predicate reference permits us to specify what a predicate refers to using a predicate—that is, if ‘refers to’ for predicates is to be understood as ‘ $\xi$  refers to  $\Phi$ ’ (where ‘ $\Phi$ ’ marks an argument place open to predicates). There is no uncontroversial rendering of ‘ $\xi$  refers to  $\Phi$ ’, Trueman acknowledges<sup>13</sup>; but unless talk of predicates referring can be interpreted in this way, he thinks, an essential feature of reference, captured in the case of terms by the likes of (i), cannot even be said to obtain in the case of predicates. However, we cannot understand ‘the referent of “ $\xi$  is a horse”’ as the result of using a definite description operator to bind a term variable in the argument place of “‘ $\xi$  is a horse” refers to  $\Phi$ ’, because only a *predicate* variable could be bound in that argument place. Trueman notes that we may wish to countenance

... a higher-level definite description operator which binds (first-level) predicate variables rather than term variables; such an operator would take a second-level predicate and return a first-level predicate standing for the unique property which satisfies that second-level predicate, if there is such a unique property. We could then use this operator to form a higher-level definite description by binding the variable in “‘ $\xi$  is a horse” refers to  $\Phi$ ’, which we could write as ‘the  $F$  such that “‘ $\xi$  is a horse” refers to  $F$ ’. But crucially, ‘the  $F$  such that “‘ $\xi$  is a horse” refers to  $F$ ’ would itself be a predicate, and so we could no more plug it into the gap in ‘ $\xi =$  the property horse’, which is a gap for singular terms, than we could plug ‘ $\xi$  is a horse’ into that gap. (Trueman 2015, §5)

Thus, Trueman thinks, with ‘refers to’ for predicates understood as it must be, the appearance that ‘the referent of “ $\xi$  is a horse”’ is a singular term presenting its referent as a property dissolves.

### 3 Initial reflections

Oddly, Trueman does not actually deliver the predicate analogue of (i) that is allegedly only available if the relational expression for predicate reference takes a predicate in accusative position. This omission can be remedied, however, using resources he accepts. We’ve just seen Trueman countenance a second-level analogue of the definite description operator; later in the paper he follows Frege in countenancing a second-level analogue of the identity predicate, which takes a predicate in each of its argument places and which I shall notate ‘ $=_2$ ’. (As with ‘ $\xi$

<sup>13</sup> One candidate, Trueman notes, is Dummett’s ‘ $\forall x(x \text{ is what } \xi \text{ refers to} \leftrightarrow \Phi x)$ ’, where the ‘is’ therein is meant to be the ‘is’ of predication rather than identity (Dummett 1981, p. 217).

refers to  $\Phi$ ', there is no uncontroversial rendering of ' $=_2$ '. Frege favoured ' $\forall x(\Phi x \leftrightarrow \Psi x)$ '; Trueman suggests ' $\Box \forall x(\Phi x \leftrightarrow \Psi x)$ '.) Using the second-level analogues of the identity predicate and the definite description operator, an analogue of (i) for ' $\xi$  is a horse' may be given as follows:

(ii) The  $F$  such that ' $\xi$  is a horse' refers to  $F =_2$  is a horse.

The admission of a second-level analogue of the identity predicate opens up a possibility for pursuing the second of the two kinds of objection mentioned at the start of Sect. 2.2. Specifically, it presents the option, not discussed in Trueman's paper, of stating Benno's thought using ' $=_2$ ' in conjunction with two predicates. Using ' $=_2$ ', we could employ ' $\xi$  is a horse' itself to pick out the property to be identified with an object, rather than a surrogate singular term. Of course, this strategy of stating Benno's thought as a higher-level identity confronts a mirror image of the problem set out in Sect. 2.1: a singular term cannot fill an argument place of ' $=_2$ ', only a predicate; so in this case it is requisite to use a surrogate *predicate* to pick out the *object* we wish to identify with a property. But whichever predicate we select, Trueman will presumably claim, it will not present its referent as an object; so the resulting second-level identity sentence will fail to express Benno's thought. The challenge, if we are to maintain that Benno's thought can be expressed with a second-level identity sentence, is to find a predicate that presents its referent as an object, just as the challenge, if we are to maintain that Benno's thought can be expressed with a first-level identity sentence, is to find a term that presents its referent as a property. I hope to show in Sect. 4 that both of these challenges can be met, that Benno's thought is accordingly susceptible of expression either as a first- or as a second-level identity claim, and hence that Trueman's case against singular reference to properties fails.

First, though, I want to raise a lesser objection to Trueman's argument: the argument does not, I submit, establish that it is nonsense to say that a property is an object; at most it establishes the disjunctive thesis that it is either nonsense or *false* to say that a property is an object. This disjunction of the nonsensicality and impossibility theses would still be a remarkable result. If Trueman were to have established the disjunction, he would have succeeded in ruling out singular reference to concepts (as either impossible or unintelligible). Nevertheless, it is worth making clear that, for all Trueman has shown, saying that a property is an object may at least escape the ignominious fate of being *not even wrong*. This emerges from an observation that will also provide inspiration in Sect. 4: even granting Trueman's claim that "'refers' for predicates must be read as ' $\xi$  refers to  $\Phi$ '" (Trueman 2015, §5), we can still insert the name of a predicate into the first argument place of ' $\xi$  refers to  $\zeta$ '; and when the second argument place is also filled with a singular term, the result will, at least, *make sense*. The sense of ' $\xi$  refers to  $\zeta$ ' is only such as to require that the expressions introduced into its argument places have the characteristic kind of sense possessed by singular terms<sup>14</sup>; the name of a

<sup>14</sup> Might it be objected that ' $\xi$  refers to  $\zeta$ ' semantically requires more of the expressions admitted into its argument places than that they have the sense of singular terms? Perhaps: the introduction of certain singular terms into the first argument place of ' $\xi$  refers to  $\zeta$ ' will produce sentences that might seem to be category mistakes—e.g. 'The Baltic Sea refers to Socrates'—and there are those who have wished to

predicate has that kind of sense.<sup>15</sup> The sentence “‘ $\xi$  is a horse” refers to Socrates’, for example, is perfectly meaningful. In that case, so is the generalization ‘ $\exists x(x$  is a predicate  $\wedge x$  refers to Socrates)’, as is its modalization ‘ $\diamond \exists x(x$  is a predicate  $\wedge x$  refers to Socrates)’. The conjunction

- (iii)  $\diamond \exists x(x \text{ is a predicate } \wedge x \text{ refers to Socrates}) \wedge \diamond \exists y(y \text{ is a singular term } \wedge y \text{ refers to Socrates})$

must also make sense, since there is no doubt about the meaningfulness of the latter conjunct. Moreover, the result of existentially generalizing this conjunction in the position of ‘Socrates’ also makes sense:

- (iv)  $\exists z(\diamond \exists x(x \text{ is a predicate } \wedge x \text{ refers to } z) \wedge \diamond \exists y(y \text{ is a singular term } \wedge y \text{ refers to } z))$

However, given the way in which ‘object’ and ‘property’ were introduced, (iv) is a very natural reading of ‘A property is an object’. So there is a very natural way of taking ‘A property is an object’ on which it is perfectly meaningful.<sup>16</sup> What, then, is the import of Trueman’s claim that ‘refers’ for predicates must be read as ‘ $\xi$  refers to  $\Phi$ ’? This: when we speak of predicates referring, it is a condition of the *truth* of what we say (*not* the meaningfulness of what we say) that ‘refers’ mean ‘ $\xi$  refers to  $\Phi$ ’. Thus, the complaint against (iv) to which Trueman is entitled is not that it is nonsense, but that it is *false*—false because nothing satisfies the predicate ‘ $\diamond \exists x(x$  is a predicate  $\wedge x$  refers to  $\xi$ )’.

These considerations also bear upon the interpretation of ‘the referent of “ $\xi$  is a horse”’ and the possibility of employing this expression to articulate Benno’s

Footnote 14 continued

classify category mistakes as nonsense. However, firstly, it is not clear that the likes of ‘The Baltic Sea refers to Socrates’ really *are* category mistakes, at least if a category mistake represents an attempt to ascribe a property to an object that is of the wrong the *kind* to exemplify that property. After all, can’t any object, in principle, serve as a name (see e.g. Lewis 1986, p. 145–6)? If so, the Baltic Sea is *not* of the wrong kind to instantiate the property of referring to Socrates. Secondly, there is a strong case to be made against the view that category mistakes are nonsense (see Magidor 2009; Magidor 2013), and the popularity of the view has certainly waned. Thirdly, even if there were categorial restrictions on the kind of thing a name of which can meaningfully appear in the first argument place of ‘ $\xi$  refers to  $\zeta$ ’—restrictions that exclude objects like the Baltic Sea—those restrictions would have to be *very* stringent to exclude predicates: a predicate is a *linguistic expression*; is a linguistic expression not the kind of thing that can refer to Socrates, for example? Though I cannot address these issues in detail, I think this suffices to indicate the difficulties confronting the view that names of predicates cannot be meaningfully substituted for ‘ $\zeta$ ’ in ‘ $\xi$  refers to  $\zeta$ ’.

<sup>15</sup> I am, of course, here assuming that predicates can be named—i.e. that predicates are objects. Trueman also makes this assumption, though he evinces a suspicion that it is false (Trueman 2015, fn. 11). I shall only say that this is not a suspicion I share. Some commentators, of whom Geach is a notable example (Geach 1976b, pp. 59–61), (Geach 1961, p. 144), (Geach 1976a, p. 440)), have maintained that Frege himself deemed this assumption false and conceived of incomplete expressions (of which predicates are a species) as linguistic *functions* mapping singular terms or sentences to singular terms or sentences. I think these commentators are wrong. Several things Frege says indicate that he conceived of incomplete expressions as objects—e.g. Frege (1980, p. 136).

<sup>16</sup> ‘A property is identical to some object’ would be more naturally read as ‘ $\exists z \exists v (\diamond \exists x (x \text{ is a predicate } \wedge x \text{ refers to } z) \wedge \diamond \exists y (y \text{ is a singular term } \wedge y \text{ refers to } v) \wedge z = v)$ ’.

thought. This expression *can* be interpreted as the result of first inserting the predicate name “‘ $\xi$  is a horse’” into the first argument place of ‘ $\xi$  refers to  $\zeta$ ’, and then using a definite description operator to bind a term variable in the argument place of the resulting predicate, “‘ $\xi$  is a horse’ refers to  $\zeta$ ’. Moreover, if ‘the referent of “‘ $\xi$  is a horse’”, thus interpreted, were to refer, it would, in one sense, present its referent as something to which a predicate can refer. Letting ‘refers<sub>1</sub>’ mean ‘ $\xi$  refers to  $\zeta$ ’ and ‘refers<sub>2</sub>’ mean ‘ $\xi$  refers to  $\Phi$ ’, ‘the referent of “‘ $\xi$  is a horse’”, thus construed, would present its referent as something to which a predicate can refer<sub>1</sub>. Moreover, if ‘referred’ in the stipulation, ‘a *property* is anything that can be referred to with a predicate’ (Trueman 2015, §2), is understood to be ‘referred<sub>1</sub>’, the resulting sense of ‘property’ is one on which ‘the referent of “‘ $\xi$  is a horse’”, as presently construed, would present its referent as a property. Let ‘property<sub>1</sub>’ mean ‘property’ in this sense. If Benno’s thought concerns the property<sub>1</sub> referred to by ‘ $\xi$  is a horse’, there is, then, no problem in presenting it as such with a singular term, and therewith identifying it with an object, as follows: the referent of ‘ $\xi$  is a horse’ = the property *horse*. But the import of Trueman’s claim that ‘refers’ for predicates must be read as ‘ $\xi$  refers to  $\Phi$ ’ is that (a) there is no property<sub>1</sub> referred to by ‘ $\xi$  is a horse’, since (b) there are no properties<sub>1</sub> at all, because predicates do not refer<sub>1</sub>, and hence (c) ‘the referent of “‘ $\xi$  is a horse’”, on its present reading, lacks a referent, as ‘ $\xi$  is a horse’, in particular, does not refer<sub>1</sub>. It does not follow that ‘the referent of “‘ $\xi$  is a horse’” = the property *horse*’ is nonsense, but the emptiness of the singular term left-flanking the identity sign renders the sentence at least untrue, a fate shared by Benno’s thought if this sentence indeed expresses it.

## 4 In defense of singular reference to concepts

### 4.1 How to state object-property identities I: second-level operators

If Benno’s thought is to be neither inexpressible nor untrue, what appears to be requisite is a singular term that presents its referent as something to which a predicate can refer<sub>2</sub>. I propose that there is a way of construing ‘the referent of “‘ $\xi$  is a horse’”, neglected in Trueman’s paper, on which this expression is just such a singular term. This expression cannot, we have seen, be understood as the result of applying the standard term-variable-binding definite description operator to the predicate “‘ $\xi$  is a horse’ refers to  $\Phi$ ’: the argument place of this predicate cannot accommodate a term variable. But nor can it be understood, if it is to be singular term, as the result of applying to this predicate the second-level definite description operator Trueman countenances in the quotation at the end of Sect. 2.2: though this operator *can* bind a predicate variable in the argument place of “‘ $\xi$  is a horse’ refers to  $\Phi$ ’, it produces a predicate, not a singular term. However, these two operators do not, I submit, exhaust our options. In addition to a term-variable-binding, term-forming operator and a predicate-variable-binding, predicate-forming operator, we can recognize a predicate-variable-binding, *term-forming* operator—one that (roughly) yields a complex name of the unique value of the predicate variable it binds (if there is one) that satisfies the relevant second-level predicate. This operator

would, firstly, be fit to bind a variable in the argument place of the second-level predicate “‘ $\xi$  is a horse’ refers to  $\Phi$ ”; secondly, produce, when applied to that second-level predicate, a singular term that co-refers with ‘ $\xi$  is a horse’; and thirdly, produce, crucially, a singular term that presents its referent as a property in the required sense—that is, as something to which a predicate might refer<sub>2</sub>. If there is such an operator, ‘the referent of “‘ $\xi$  is a horse’” may be understood as the result of applying this operator to the second-level predicate “‘ $\xi$  is a horse’ refers to  $\Phi$ ’.

If Trueman’s argument is to go through, therefore, he requires that *there can be no such operator*. But what reason have we to preclude such a term-forming operator? Needless to say, variable-binding operators need not yield expressions of the same logical type as the variables they bind.<sup>17</sup> *Prima facie*, the term-forming operator seems just as intelligible as the predicate-forming operator Trueman recognises. Neither operator is readily rendered in English (though I note that ‘the  $F$  such that “‘ $\xi$  is a horse’ refers to  $F$ ’ is much more straightforwardly heard as a singular term than a predicate).

Are there any grounds for denouncing the operator I propose? There is at least one reason one might be concerned about it. Let’s introduce some notation for the two predicate-variable-binding operators now on the table. Let  $I_p$  be the higher-level definite description operator Trueman recognizes (the subscript indicating that it is predicate-forming) and let  $I_t$  be the higher-level operator I propose that we recognize (the subscript indicating that it is term-forming). Call an  $I_p$ -predicate any predicate that results from binding a predicate variable in the argument place of a second-level predicate with  $I_p$ . Similarly, call an  $I_t$ -term any term that results from binding a predicate variable in the argument place of a second-level predicate with  $I_t$ . The proposal is to state the desired object-property identity, Benno’s thought, as follows:

(v)  $I_t F$  (‘ $\xi$  is a horse’ refers to  $\Phi$ ) = the property *horse*.

Here is the concern.<sup>18</sup> If we are to introduce  $I_t$  then we shall have to state its semantics. That means giving a principle that settles, given an arbitrary  $I_t$ -term, to what it refers. In the case of the standard definite description operator—which we now symbolize as  $\iota$ —we give some such principle as the following:

(vi) For all  $x$  (‘ $\iota x(Fx)$ ’ refers to  $x$  iff for all  $y$  ( $Fy$  iff  $x = y$ )).

<sup>17</sup> More than one predicate-variable-binding, term-forming operator appears in Frege’s own work. Firstly, since he thinks that sentences are names, the second-order quantifiers, on Frege’s analysis, will surely count as such operators. Secondly, Frege will presumably want to recognise a second-level counterpart to his first-level notation for the value-range of a first-level function. The first-level notation features an operator (a Greek letter with a smooth breathing) that binds a first-order variable (the same letter without the smooth breathing) in the argument place of a function expression. Applied to ‘ $f$ ’ the operator yields a name of the value-range of  $f$ —viz. ‘ $\iota f(\epsilon)$ ’. See Frege (1997b, p. 136–7). The second-level counterpart of this notation will feature an operator that binds a function variable (e.g. a predicate variable) in the argument place of a second-level function expression ‘ $Q$ ’, and yields a name of the value-range of  $Q$ . This operator will thus be both predicate-variable-binding and term-forming.

<sup>18</sup> I’m grateful to Robert Trueman for impressing the following kind of worry upon me in correspondence.

Roughly, this tells us that the result of applying  $\iota$  to a first-level predicate ' $F\xi$ ' refers to any object, and only that object, that uniquely satisfies ' $F\xi$ '. Likewise, in the case of  $I_p$  we can give the following principle for an arbitrary  $I_p$ -predicate:

(vii) For all  $F$  (' $I_p F(QF)$ ' refers to  $F$  iff for all  $G$  ( $QG$  iff  $G = {}_2F$ )).

Roughly, this tells us that the result of applying  $I_p$  to a second-level predicate, ' $Q\Phi$ ', refers to any property, and only that property, that uniquely satisfies ' $Q\Phi$ '. However, we run into difficulty when we attempt to state a corresponding principle for  $I_t$ . The temptation is to offer something like the following:

(viii) For all  $x$  (' $I_t F(QF)$ ' refers to  $x$  iff for all  $G$  ( $QG$  iff  $G = x$ )).

But, of course, this is nonsense: no sense has been given to '=' that would permit it to receive a predicate (variable or constant) into one argument place and a singular term (variable or constant) into the other. So then how *are* we to give the intended semantics of  $I_t$ ?

A more promising attempt to state a corresponding principle for  $I_t$  is as follows:

(ix) For all  $F$  (' $I_t F(QF)$ ' refers to  $F$  iff for all  $G$  ( $QG$  iff  $G = {}_2F$ )).

In the left-hand clause of the bi-conditional, 'refers to' is ' $\xi$  refers to  $\Phi$ '. This might seem aberrant, since ' $I_t F(QF)$ ' is intended to be a singular term, not a predicate. However, there is, of course, no *syntactic* obstacle to our inserting the name of a singular term into the first argument place of ' $\xi$  refers to  $\Phi$ ', and the results of doing so are perfectly meaningful, just as—we saw in Sect. 3—the results of inserting the name of a predicate into the first argument place of ' $\xi$  refers to  $\zeta$ ' are perfectly meaningful. Note that the strategy of inserting the name of a singular term into the first argument place of ' $\xi$  refers to  $\Phi$ ' also affords a way of pursuing the neglected approach mentioned in Sect. 3: expressing an object-property identity using two predicates in conjunction with the second-level analogue of the identity predicate. In particular, it seems to enable us to produce a predicate that presents its referent as an object. We may insert, for example, 'the property *horse*'—the name of an object with which we wish to identify a property—into the first argument place of ' $\xi$  refers to  $\Phi$ '. To the predicate that results—"the property *horse*" refers to  $\Phi$ —we may then apply the predicate-forming operator  $I_p$  to yield: ' $I_p F$  ("the property *horse*" refers to  $F$ )'. This predicate appears to present its referent as something to which singular reference can be made, and to allow us to state the desired object-property identity as follows:

(x)  $I_p F$  ('the property *horse*' refers to  $F$ ) =  $_2$  is a horse.

The concern, though, about inserting the name of a singular term into the first argument place of ' $\xi$  refers to  $\Phi$ ', and thus about the proposed strategies for stating the  $I_t$  operator's semantics and articulating Benno's thought with the higher-level identity sentence, (x), will be this: Trueman's argument that 'refers' in talk of predicates referring must be read as ' $\xi$  refers to  $\Phi$ ' will be paralleled by an argument that 'refers' in talk of singular terms referring must be read as ' $\xi$  refers to  $\zeta$ '. In brief: it is only possible to state a disquotation sentence, like (i), for a singular term using ' $\xi$  refers to  $\zeta$ ', not ' $\xi$  refers to  $\Phi$ '.

However, I believe we now have the resources to reply to this argument and to vindicate the use of ‘ $\xi$  refers to  $\Phi$ ’ in speaking of singular terms referring. The challenge is to formulate a disquotational identity, analogous to (i), for a singular term, using ‘ $\xi$  refers to  $\Phi$ ’. Letting ‘ $a$ ’ be a singular term, I propose that the following meets this challenge:

$$(xi) \quad I_t F ('a' \text{ refers to } F) = a.$$

We here employ our term-forming operator  $I_t$  to form a term that picks out the unique property to which ‘ $a$ ’ refers—if there is such a property—and say that that property is identical to  $a$ . The reference predicate we use is ‘ $\xi$  refers to  $\Phi$ ’.

The reader will have noticed that there is a circularity here: we have sought to vindicate the use of ‘ $\xi$  refers to  $\Phi$ ’ to specify the referent of a singular term, by giving a disquotational identity that makes use of the  $I_t$  operator; and we gave the semantics of  $I_t$  using a principle—(ix)—that itself uses ‘ $\xi$  refers to  $\Phi$ ’ to specify the referent of a singular term. However, I simply see no reason to think that this circularity is vicious. It is certainly not generally to be expected that the semantics for an expression may be given in a manner completely devoid of circularity. Absent a reason for thinking the circularity in this particular instance a cause for concern, I conclude that the use of ‘ $\xi$  refers to  $\Phi$ ’ in speaking of singular terms referring satisfies Trueman’s requirement concerning the possibility of stating disquotation sentences.

I have now adduced two methods of expressing Benno’s thought, each exploiting a second-level variable-binding operator: firstly, with the first-level identity sentence, (v), using  $I_t$ ; and secondly, with the second-level identity sentence (x), using  $I_p$ . So far, no reason has been given to doubt that these methods succeed.

## 4.2 How to state object-property identities II: first-level operators

Having recognized a predicate-variable-binding, term-forming operator in addition to a term-variable-binding, term-forming operator and a predicate-variable-binding, predicate-forming operator, it is natural to complete the square and recognize a term-variable-binding, *predicate*-forming operator. This first-level operator, which we symbolise  $\iota_p$ , binds a term variable in the argument place of a first-level predicate and, informally, yields a predicate referring to the unique value of that term variable (if there is one) that satisfies that first-level predicate. The semantics for  $\iota_p$ , can more formally be captured by the following principle:

$$(xii) \quad \text{For all } x \text{ ('}\iota_p x(Fx)\text{' refers to } x \text{ iff for all } y (Fy \text{ iff } x = y)).$$

‘ $\iota_p x(Fx)$ ’ is a *predicate*, and the principle tells us, intuitively, that it is a predicate whose referent is the unique object that satisfies the predicate ‘ $F\xi$ ’. But since it is a predicate, (xii) involves the appearance of a predicate in the first argument place of ‘ $\xi$  refers to  $\zeta$ ’. Surely this falls foul of Trueman’s argument that ‘refers’ in talk of predicates referring must be read as ‘ $\xi$  refers to  $\Phi$ ’?

However, I believe we now have the resources to reply to this argument and to vindicate the use of ‘ $\xi$  refers to  $\zeta$ ’ in speaking of predicates referring. The challenge is to formulate a disquotational identity, analogous to (i), for a predicate, using ‘ $\xi$

refers to  $\zeta$ '. Letting ' $F\xi$ ' be a predicate, I propose that the following meets this challenge:

$$(xiii) \quad \iota_p x ('F\xi' \text{ refers to } x) = {}_2 F.$$

We here employ our predicate-forming operator  $\iota_p$  to form a predicate that picks out the unique object to which ' $F\xi$ ' refers—if there is such an object—and flank the second-level analogue of the identity sign with this predicate and the disquoted predicate ' $F\xi$ '. The reference predicate we use is ' $\xi$  refers to  $\zeta$ '.

We find a circularity here, parallel to the circularity involved in our vindication of the use of ' $\xi$  refers to  $\Phi$ ' in speaking of singular terms referring: we seek to vindicate the use of ' $\xi$  refers to  $\zeta$ ' in speaking of predicates referring, by giving a disquotational identity that makes use of the  $\iota_p$  operator; and we gave the semantics of  $\iota_p$  using a principle—(xii)—that itself uses ' $\xi$  refers to  $\zeta$ ' to specify the referent of a predicate. But again, I just see no reason to think that this circularity is in any way pathological. I conclude that the use of ' $\xi$  refers to  $\zeta$ ' in speaking of predicates referring satisfies Trueman's requirement concerning the possibility of stating disquotation sentences.

Having recognized the  $\iota_p$  operator and vindicated the use of ' $\xi$  refers to  $\zeta$ ' for predicates, we are, I submit, afforded two further methods for stating Benno's thought. Firstly, we may use the  $\iota_p$  operator to construct a predicate that presents its referent as an object: ' $\iota_p x$  ('the property *horse*' refers to  $x$ )'. Therewith, we may formulate Benno's thought as the following second-level identity:

$$(xiv) \quad \iota_p x ('the \textit{property horse}' \text{ refers to } x) = {}_2 \text{ is a horse.}$$

Secondly, we may use the ordinary definite description operator to construct a singular term that presents its referent as a property: ' $\iota x$  (' $\xi$  is a horse' refers to  $x$ )'. Therewith, Benno's thought can be naturally stated as the following first-level identity:

$$(xv) \quad \iota x (' \xi \text{ is a horse}' \text{ refers to } x) = \text{the property } \textit{horse}.$$

Exploiting the first-level operators  $\iota$  and  $\iota_p$ , we can, I conclude, again either express Benno's thought as a first-level identity claim or as a second-level identity claim.

## 5 Conclusion

I hope to have established that, *pace* Trueman's argument, Benno's thought does admit of expression. It can be expressed, I claim, as a first-level identity, using (v) or (xv), or as a second-level identity, using (x) or (xiv). Benno's thought was just an arbitrary object-property identity, so I conclude that it is possible to express object-property identities. If I am right, Trueman has failed to establish that it is nonsense to say, generally, that a property is identical to some object. But nor has he established that it is *false* to say so: for no reason has been given for thinking that (v), (xv), (x) and (xiv), each of which can be understood as instances of this existential generalization, are false. I hold, then, that singular reference to properties/concepts survives Trueman's assault. If the Fregean position is to be upheld, justification must be sought elsewhere.



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