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A PARADOX FOR THE EXISTENCE PREDICATE

Abstract

In this paper, a paradox is shown to arise in the context of classical logic from prima facie highly plausible assumptions for the existence predicate as applied to definite descriptions. There are several possibilities to evade the paradox; all involve modifications in the principles of first-order logic with identity, existence, and definite descriptions; some stay within classical logic, others leave it. The merits of the various "ways out" are compared. The most attractive "way out," it is argued, stays within classical logic, except for the fact that it involves a new logical truth: "There is at least one non-existent object." But this "exit" will certainly not be to everyone's taste and liking. Thus, the paradox defies complete resolution (as every good paradox should).

Keywords: Definite descriptions, existence, Kripke, Russell, Frege, Meinong.

In Kripke [1, p. 323] we read: "E(α) [is] to be read as 'α exists,' which in the case of a definite description simply means that the relevant existence and uniqueness conditions are satisfied." If the operator of definite description is symbolized by "ι" – definite descriptions having the general form $\iota\upsilon\Phi[\upsilon]$ – and the quantifier of unique existence is symbolized by "$\exists!$" – where $\exists!\upsilon(\Phi[\upsilon]$ is defined as $\exists\upsilon(\Phi[\upsilon] \wedge \forall\omega(\Phi[\omega] \supset \omega = \upsilon))$ or, equivalently, as $\exists\upsilon\forall\omega(\omega = \upsilon \equiv \Phi[\omega])$ – then we can gather from the quoted passage that Kripke considers $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \equiv \exists!\upsilon\Phi[\upsilon]$ to be a general schema of logical truths. Kripke, to my knowledge, shows no awareness of any possible problem or difficulty being connected to this assumption. However, there is such a problem and difficulty, on a fairly elementary level.

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1. The presentation of the paradox

The paradox is based on two suppositions, P1 and P2, in symbols:

P1 $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \equiv \exists!\upsilon\Phi[\upsilon]$

P2 $\iota\omega(\omega = \iota\upsilon\Phi[\upsilon]) = \iota\upsilon\Phi[\upsilon]$

P1 – "Kripke's Schema"[1] – and P2 are general schemata (of alleged logical truths), allowing an infinite number of *specifications*, which make them (P1 and P2) more specific but retain their original schematic nature; *and* allowing infinitely many *instantiations*, which are *not* schemata, hence not expressed by using Greek letters and square brackets. Thus, $\mathrm{E}(\iota\omega\forall\upsilon\Psi[\omega,\upsilon]) \equiv \exists!\omega\forall\upsilon\Psi[\omega,\upsilon]$, for example, is a *specification* of $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \equiv \exists!\upsilon\Phi[\upsilon]$, but $\mathrm{E}(\iota xF(x)) \equiv \exists!xF(x)$ and $\mathrm{E}(\iota y\forall xG(y,x)) \equiv \exists!y\forall xG(y,x)$ are *instantiations* of it, "$F(x)$" and "$G(y,x)$" being atomic predicates of the (relevant) formal language; in *instantiations* of the schemata – in contrast to *specifications* of them – there is nothing which might be further specified.[2]

A simple paradoxical deduction – that is, a simple deduction of a paradoxical conclusion – from the suppositions P1 and P2 is the following one:

1.	$\exists!y(y = \iota xF(x))$	logical truth
2.	$\mathrm{E}(\iota y(y = \iota xF(x)))$	[logically] from 1. and P1 [instantiated with "$y = \iota xF(x)$"]
3.	$\mathrm{E}(\iota xF(x))$	from 2. and P2 [instantiated with "$F(x)$" and with "y" for "ω"]
4.	$\exists!xF(x)$	from 3. and P1 [instantiated with "$F(x)$"]

This paradoxical deduction can be expressed as follows in *English with schema-letters* (that is, with "placeholders"):

P1 The sole object which Φs exists if, and only if, there is exactly one object which Φs.

[1] The "inventor" of P1, however, is not Kripke but Russell, of which fact Kripke is perfectly aware; see Kripke [2, p. 55fn6]. Note that Kripke upholds P1 without upholding Russell's, Frege's or Kant's view that there is no (proper, real) first-order predicate of existence. Rather, Kripke (see [2, pp. 55fn6 and 57]) certainly believes that there is such a predicate: $\exists y(y = x)$.

[2] Note that $\mathrm{E}(\iota y\forall xG(y,x)) \equiv \exists!y\forall xG(y,x)$ – but not $\mathrm{E}(\iota xF(x)) \equiv \exists!xF(x)$ – is also an instantiation of $\mathrm{E}(\iota\omega\forall\upsilon\Psi[\omega,\upsilon]) \equiv \exists!\omega\forall\upsilon\Psi[\omega,\upsilon]$. Another instantiation of the latter schema, a more complex one, is this: $\mathrm{E}(\iota y\forall x(G(y,x) \supset F(x))) \equiv \exists!y\forall x(G(y,x) \supset F(x))$; it is, of course, also an instantiation of the schema $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \equiv \exists!\upsilon\Phi[\upsilon]$.

P2 The sole object which is identical to the sole object which Φs *is identical to* the sole object which Φs.

1. There is exactly one object which is identical to the sole object which is F. [logical truth]
2. The sole object which is identical to the sole object which is F exists. [from 1. and P1]
3. The sole object which is F exists. [from 2. and P2]
4. There is exactly one object which is F. [from 3. and P1]

An individual case of the above paradoxical deduction in ordinary language is this:

An example of P1-instantiation in ordinary language:

P1*: The object which is identical to *the largest prime number* exists if, and only if, there is exactly one object which is identical to *the largest prime number*.

Another example of P1-instantiation in ordinary language:

P1**: *The largest prime number* exists if, and only if, there is exactly one largest prime number.

An example of P2-instantiation in ordinary language:

P2*: The object which is identical to *the largest prime number* is identical to *the largest prime number*.

1. There is exactly one object which is identical to the largest prime number. [logical truth]
2. The object which is identical to the largest prime number exists. [from 1. and P1*]
3. The largest prime number exists. [from 2. and P2*]
4. There is exactly one largest prime number. [from 3. and P1**]

Clearly, the paradox consists in the fact that from prima facie plausible assumptions (of a purely logical nature) one can validly deduce, for any predicate whatsoever, that there is exactly one object that fulfills the predicate. Among other astonishing propositions, one can deduce that there is exactly one object – as Parmenides proposed long ago; for obtaining this result, simply run the described paradoxical deduction with the predicate

"x is an object" [in symbols: $\exists y(x = y)$, where *being an object* is defined as *being identical to something*] and therefore with the definite descriptions "*the (sole) object*" [$\iota x \exists y(x = y)$] and "*the object which is identical to the (sole) object*" [$\iota z(z = \iota x \exists y(x = y))$]. The described paradoxical deduction can, moreover, be used for "obtaining" not only mathematical falsehoods (like the one above) but also glaring logical contradictions; for example, by running the deduction with the predicate "x is not an object" [$\neg\exists y(x = y)$] and therefore with the definite descriptions "*the (sole) non-object*" [$\iota x \neg\exists y(x = y)$] and "*the object which is identical to the (sole) non-object*" [$\iota z(z = \iota x \neg\exists y(x = y))$]; the conclusion "There is exactly one non-object" [$\exists! x \neg\exists y(x = y)$] contradicts the logical truth "Everything is an object" [$\forall x \exists y(x = y)$]. Even more directly, a logical contradiction is "established," via the described paradoxical deduction, by running it with a predicate of the form $\Phi[\upsilon] \wedge \neg\Phi[\upsilon]$.

2. Reacting to the paradox

There are several ways of reacting to the specified paradoxical situation with the intention of escaping from it. Some of these ways may appear to be so obviously right to readers as to suggest to them that there is, in fact, no paradox at all here. This suggestion, however, can and should be resisted. I will discuss the ways of reacting to the paradox with respect to a symbolic language (of first-order predicate logic with identity and definite descriptions).

(i) One might deny that $\exists! y(y = \iota x F(x))$ is a logical truth, thus repudiating the assumption that is made in line 1 of – what is henceforth called – *the paradoxical deduction*. Given this denial, one rejects *the paradoxical deduction* from its very beginning. Moreover, given the denial that $\exists! y(y = \iota x F(x))$ is a logical truth, one assumes that there is no basis for believing that $\iota y(y = \iota x F(x)) = \iota x F(x)$ is a logical truth, *a fortiori*, no basis for thinking that P2 is a general schema of logical truths.[3] Since $\forall z \exists! y(y = z)$ is a logical truth, the suggested stance amounts to denying

[3] If, however, $\exists! y(y = \iota x F(x))$ is a logical truth, then the logical truth of $\iota y(y = \iota x F(x)) = \iota x F(x)$ is a necessary consequence – because of the following entirely uncontroversial logical-truths-schema of the logic of definite descriptions: $\exists! \upsilon \Psi[\upsilon] \supset \Psi[\iota \upsilon \Psi[\upsilon]]$, which is *the central logical law for definite descriptions*.

that every (well-formed, meaningful) singular term can be used for obtaining a true singular-term instantiation of a true universal statement; in particular, the suggested move amounts to denying that every (well-formed, meaningful) *definite description* can be used for this purpose. It is denied, for example, that the definite description $\iota xF(x)$ *for which* – let's assume – $\exists! xF(x)$ *is meaningful but not true* can be used for truth-instantiating a true universal statement; for otherwise $\exists! y(y = \iota xF(x))$ would be just as much a logical truth as $\forall z \exists! y(y = z)$ is a logical truth.

Response: If the definite description $\iota xF(x)$ for which $\exists! xF(x)$ is meaningful but not true is given an *ersatz object* to refer to (according to the Frege-Carnap-method of treating "defective" definite descriptions), then nothing stands in the way of using $\iota xF(x)$ for truth-instantiating a true universal statement; consequently, $\exists! y(y = \iota xF(x))$ must be accepted as a logical truth. It is true: In *free logic*, which is a nonclassical logic, $\exists! y(y = \iota xF(x))$ is certainly not a logical truth (because, in *free logic*, $\exists y(y = \iota xF(x))$ is not a logical truth) and the above-presented paradoxical deduction is blocked at a very early stage. The same result follows if Russell's method of treating definite descriptions is adopted: According to Russell's method – which consists in treating $\Psi[\iota\upsilon\Phi[\upsilon]]$ as $\exists\upsilon(\Phi[\upsilon] \wedge \forall\omega(\Phi[\omega] \supset \omega = \upsilon) \wedge \Psi[\upsilon])$ – $\exists! y(y = \iota xF(x))$ is not a logical truth because $\exists x(F(x) \wedge \forall y(F(y) \supset y = x) \wedge \exists! y(y = x))$ is not a logical truth.[4] But the price for this is that – just as in *free logic* – one must depart from classical logic by restricting the (so-called) *dictum de omni*, which, in its unrestricted (original) form, is the following logical law: Given any true universal statement, it follows by logical necessity that any singular-term instantiation of that statement is true, too (in short: $\forall\upsilon\Phi[\upsilon] \supset \Phi[\tau]$ is a general schema of logical truths).

What if we wish to stick to classical logic, to classical logic as Frege (and others) intended it: a logic where *every* singular term refers to – or, by

[4] There is a well-known problem connected with the Russell-method: whether $\neg\Psi[\iota\upsilon\Phi[\upsilon]]$ is to be treated as $\neg\exists\upsilon(\Phi[\upsilon] \wedge \forall\omega(\Phi[\omega] \supset \omega = \upsilon) \wedge \Psi[\upsilon])$, or as $\exists\upsilon(\Phi[\upsilon] \wedge \forall\omega(\Phi[\omega] \supset \omega = \upsilon) \wedge \neg\Psi[\upsilon])$. These two options are not generally logically equivalent. They are, for example, not logically equivalent in the case of $\neg\exists! y(y = \iota xF(x))$: If the second option is chosen, $\neg\exists! y(y = \iota xF(x))$ turns out to be *logically false*; if the first option is chosen, $\neg\exists! y(y = \iota xF(x))$ turns out to be neither logically false nor logically true. Thus, only the first option is compatible with the result already obtained by the Russell-method: that $\exists! y(y = \iota xF(x))$ is not a logical truth; the second option, by making $\neg\exists! y(y = \iota xF(x))$ logically false, would entail the logical truth of $\exists! y(y = \iota xF(x))$ – *contradicting* the result already obtained by the Russell-method.

providing an ersatz designatum, is *made* to refer to – something and where the *dictum de omni* is unrestrictedly valid? Undoubtedly, the wish is at least legitimate. In fact, for *scientific* purposes, such a logic may be deemed *ideal*. Having a language in mind which is ideal for scientific purposes, a language which is entirely without vacuous names, $\exists!y(y = \iota xF(x))$ ought to be accepted as a logical truth (and therefore also $\iota y(y = \iota xF(x)) = \iota xF(x)$; see footnote 3).

(ii) Aside from the logical assumption in line 1 of *the paradoxical deduction*, the logic of the deduction is beyond reasonable doubt (*including* the step from line 2 to line 3, which is an instance of the substitution of identicals). One may wish to retain that initial assumption: a stance which is certainly far from unreasonable (see (i)) and entirely legitimate. If one adopts this stance, attempts to resolve the paradox must be directed against its two other premises, P1 and P2. But P2, in fact, turns out to be a general schema of logical truths. Not only is $\exists!y(y = \iota xF(x))$ a logical truth, as has just been accepted after careful deliberation; that deliberation also suffices for establishing that every sentence of the form $\exists!\omega(\omega = \iota\upsilon\Phi[\upsilon])$ is a logical truth. Consequently, *every* sentence of the form $\iota\omega(\omega = \iota\upsilon\Phi[\upsilon]) = \iota\upsilon\Phi[\upsilon]$ is a logical truth – in view of *the central logical law for definite descriptions*: $\exists!\upsilon\Psi[\upsilon] \supset \Psi[\iota\upsilon\Psi[\upsilon]]$ (cf. footnote 3); according to this entirely uncontroversial law, $\iota\omega(\omega = \iota\upsilon\Phi[\upsilon]) = \iota\upsilon\Phi[\upsilon])$ (as a general schema) follows from $\exists!\omega(\omega = \iota\upsilon\Phi[\upsilon])$ (as a general schema). Thus, P2 is established as a general schema of logical truths.

However, what has also become obvious by now is this: P2 is not even needed for producing *the paradoxical deduction*. It can also be done as follows:

1.	$\exists!y(y = \iota xF(x))$	logical truth [instantiation of the logical truth $\forall z\exists!y(y = z)$]
1′.	$\iota y(y=\iota xF(x))=\iota xF(x)$	from 1. by employing $\exists!\upsilon\Psi[\upsilon] \supset \Psi[\iota\upsilon\Psi[\upsilon]]$
2.	$\mathrm{E}(\iota y(y = \iota xF(x)))$	from 1. and P1 [instantiated with "$y = \iota xF(x)$"]
3.	$\mathrm{E}(\iota xF(x))$	from 2. and 1′.
4.	$\exists!xF(x)$	logically from 3. and P1 [instantiated with "$F(x)$"]

(iii) Thus, P1 is all that can be drawn into doubt – once $\exists!\omega(\omega = \iota\upsilon\Phi[\upsilon])$ is accepted as a logical consequence of $\forall\upsilon\exists!\omega(\omega = \upsilon)$. Now, logically, P1 is the conjunction of two (schematic) principles: P1.1 $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \supset \exists!\upsilon\Phi[\upsilon]$, and P1.2 $\exists!\upsilon\Phi[\upsilon] \supset \mathrm{E}(\iota\upsilon\Phi[\upsilon])$. In *the paradoxical deduction*, it is in effect an instantiation of P1.2 (as a logical part of an instantiation of P1) that is used for making the step from line 1 to line 2; and it is in effect an instantiation of P1.1 (as a logical part of another instantiation of P1) that is used for making the step from line 3 to line 4. Both P1.1 and P1.2 seem immensely plausible; yet they cannot both be accepted (on pain of absurdity), as we have seen. *One* (at least) of the two must go. Which one should it be?

(iv) If the Frege-Carnap method for treating "defective" definite descriptions is adopted – and this is what one will have to do if one wishes to stick to classical logic with *unrestricted dictum de omni* – then there will be a logical law of the following form:

$$\neg\exists!\upsilon\Phi[\upsilon] \supset \iota\upsilon\Phi[\upsilon] = o^*,$$

where "o^*" designates the chosen ersatz designatum for "defective" definite descriptions. Call this logical law *the law for definite descriptions with referential default*. The next question is: Does o^* exist, or does it not? (This very question, of course, invokes a law of classical logic which is even more fundamental to it than the *unrestricted dictum de omni*: the *tertium non datur*.)

Suppose that o^* *exists*: $\mathrm{E}(o^*)$ – which would be the consequence if o^* is identified with, say, Napoleon, or the empty set, or the number zero ($\emptyset$ and 0 are popular candidates for being designated by "o^*"). Then P1.1 stands refuted. This is easy to see: Consider empty predicates, be they empty for logical reasons or just accidentally empty. Suppose that $F(x)$ is an empty predicate. Then $\neg\exists!xF(x)$ is true and, by *the law for definite descriptions with referential default*, it follows: $\iota xF(x) = o^*$. From this, in turn, it follows with $\mathrm{E}(o^*)$: $\mathrm{E}(\iota xF(x))$. We have therefore: $\mathrm{E}(\iota xF(x)) \wedge \neg\exists!xF(x)$, constituting a counterexample to P1.1.

Suppose, in turn, that o^* *does not exist*: $\neg\mathrm{E}(o^*)$. Then it is P1.2 which stands refuted: $\exists!y(y = o^*)$ is a logical truth (because $\forall z\exists!y(y = z)$ is a logical truth); therefore, $\iota y(y = o^*) = o^*$ is a logical truth, too (by *the central logical law for definite descriptions*). Hence it follows with $\neg\mathrm{E}(o^*)$: $\neg\mathrm{E}(\iota y(y = o^*))$. We have therefore: $\exists!y(y = o^*) \wedge \neg\mathrm{E}(\iota y(y = o^*))$, constituting a counterexample to P1.2.

What shall we do? Shall we adopt $\mathrm{E}(o^*)$ and reject P1.1: $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \supset \exists!\upsilon\Phi[\upsilon]$, or shall we adopt $\neg\mathrm{E}(o^*)$ and reject P1.2: $\exists!\upsilon\Phi[\upsilon] \supset \mathrm{E}(\iota\upsilon\Phi[\upsilon])$? Note that adopting $\neg\mathrm{E}(o*)$ not only *allows* adopting P1.1, but *positively requires* the adoption of P1.1 (alongside the rejection of P1.2): Suppose (for *reductio*) $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \wedge \neg\exists!\upsilon\Phi[\upsilon]$; hence $\iota\upsilon\Phi[\upsilon] = o^*$, hence with $\neg\mathrm{E}(o^*)$: $\neg\mathrm{E}(\iota\upsilon\Phi[\upsilon])$ – contradicting the initial supposition. In contrast, adopting $\mathrm{E}(o^*)$ only allows the adoption of P1.2 (alongside the rejection of P1.1), it does not require it.

3. The best resolution of the paradox

P1.1 and P1.2 together – in other words: the whole of P1 – cannot be accepted (on pain of absurdity). Now, it seems much worse to reject P1.1 than to reject P1.2: Could it be true that *the* king of France in the year 2011 exists and nothing is a king of France in the year 2011? Could it be true that *the* daughter of Obama exists and more than one person is a daughter of Obama? We are certainly inclined to answer in these cases (and all other cases of the same structure): *No, that couldn't be true*; which inclination is good for P1.1, making it more difficult to reject P1.1 as a schema of logical truths. In contrast, if we are asked: Could it be true that exactly one object does not exist, and the non-existent object does not exist, could it be true, in other words, that $\exists!z\neg\mathrm{E}(z) \wedge \neg\mathrm{E}(\iota z\neg\mathrm{E}(z))$?, then we are certainly inclined to answer: *Yes, that could be true*;[5] which inclination is bad for P1.2, making it easier to reject P1.2 as a schema of logical truths.

Accordingly, within the framework of classical logic with *unrestricted dictum de omni* – which framework can very well hold its own vis-à-vis free logic and Russell's theory of definite descriptions it seems best to respond to *the paradoxical deduction* by retaining of its first premise (P1) only P1.1, while rejecting P1.2. But P1.1 does not only follow from $\neg\mathrm{E}(o^*)$ (as we have already seen), $\neg\mathrm{E}(o^*)$ also follows from P1.1: Since $\neg\exists!z(z \neq z)$ is a logical truth, we have: $\neg\mathrm{E}(\iota z(z \neq z))$ and $\iota z(z \neq z) = o^*$, according to P1.1 (in contraposition) and *the law for definite descriptions with referential default*; and therefore: $\neg\mathrm{E}(o^*)$. Thus, P1.1 and $\neg\mathrm{E}(o^*)$ are logically equivalent. And therefore, acknowledging P1.1 as a schema of logical

[5] Note that, by *the central law for definite descriptions*, $\neg\mathrm{E}(\iota z\neg\mathrm{E}(z))$ is an immediate consequence of $\exists!z\neg\mathrm{E}(z)$.

truths (preserving *one half* of Kripke's P1) by making it an axiom-schema (alongside *the central logical law for definite descriptions* and *the law for definite descriptions with referential default*) turns $\neg\mathrm{E}(o^*)$ into a logical theorem – and hence also $\exists z \neg \mathrm{E}(z)$,[6] "Something does not exist," or more dramatically: "There is something that does not exist." *Meinongianism is provable.*

4. The, for the majority, best resolution of the paradox

One cannot keep both P1.1 and P1.2, in other words, P1 in its (logical) entirety. Discarding *both* P1.1 and P1.2, on the other hand, seems an unjustifiable "overkill" in reaction to *the paradoxical deduction.* So, the open alternatives of reaction to *the paradoxical deduction* are the following two: either retain P1.1 and discard P1.2, or retain P1.2 and discard P1.1. Now, the provability of $\neg\mathrm{E}(o^*)$ and $\exists z \neg \mathrm{E}(z)$ on the basis of P1.1 is bound to be an unattractive result for the anti-Meinongian majority among the philosophers. They will, therefore, opt for retaining the other logical half of P1: P1.2, although P1.1 does seem – ingenuously – rather more retainable than P1.2 (see section 3).

We have seen that P1.1 entails $\neg\mathrm{E}(o^*)$ (given the basic logic of definite descriptions); it is easily seen that P1.2, in turn, entails $\mathrm{E}(o^*)$, and not only $\mathrm{E}(o^*)$ but also $\forall z \mathrm{E}(z)$:

1.	$\exists! y(a = y)$	(provable) logical truth ["a" being an arbitrary designator]
2.	$\mathrm{E}(\iota y(a = y))$	from 1. and P1.2
3.	$a = \iota y(a = y)$	logical truth
4.	$\mathrm{E}(a)$	from 2. and 3.
5.	$\forall z \mathrm{E}(z)$	from 4. by predicate-logical *all*-generalization
6.	$\mathrm{E}(o^*)$	from 5. by singular-term instantiation

[6] This follows within the framework of classical logic (from which we have decided not to depart) with the *unrestricted dictum the omni*; which law is, of course, tantamount in classical logic to *the law of unrestricted* – so-called – *existential generalization*: Given any true singular statement, it follows by logical necessity that any existential generalization of that statement is true, too (in short: $\Phi[\tau] \supset \exists \upsilon \Phi[\upsilon]$ is a general schema of logical truths).

Conversely, P1.2 is a trivial consequence of $\forall z\mathrm{E}(z)$: $\mathrm{E}(\iota\upsilon\Phi[\upsilon])$ is a singular-term instantiation of $\forall z\mathrm{E}(z)$ (for any definite description $\iota\upsilon\Phi[\upsilon]$), hence: $\exists!\upsilon\Phi[\upsilon] \supset \mathrm{E}(\iota\upsilon\Phi[\upsilon])$, by propositional logic. The anti-Meinongians, therefore, ought to feel fully satisfied – "in their prejudice in favor of the existent", the Meinongians might add.[7]

The results obtained in sections 2, 3 and 4 can be summed up as follows:

$\text{P1.1} \leftrightarrow \neg\mathrm{E}(o^*) \rightarrow \exists z\neg\mathrm{E}(z)$[8]

$\text{P1.2} \leftrightarrow \forall z\mathrm{E}(z) \rightarrow \mathrm{E}(o^*)$

Here the arrow stands for logical consequence in classical first-order predicate logic with identity and definite descriptions (encompassing such laws as the *unrestricted dictum de omni, the central logical law for definite descriptions, the law for definite descriptions with referential default, the law for the substitution of identicals*, and so forth). Thus, it is no wonder that P1, being logically equivalent to the conjunction of P1.1 and P1.2, turns out to be a source of absurdity, attractive as it may look at first sight. What is less clear is by which principle P1 should be replaced. In any case, it is interesting that "sweeping" results can be obtained about the existence predicate – namely, the logical truth of $\exists z\neg\mathrm{E}(z)$, or, on the contrary, that of $\forall z\mathrm{E}(z)$ – *without* presupposing any particular interpretation of it (as, for example, that "$\mathrm{E}(x)$" means as much as "x is something," or as much as "x is something actual").

5. The ABC-knot of ideas and two ways of untying it

Many philosophers find the following combination of ideas highly attractive:

(A) Everything exists: $\forall x\mathrm{E}(x)$.

[7] Meinong himself speaks of "Das Vorurteil zugunsten des Wirklichen [The prejudice in favor of the actual]" ([3, p. 3]; my translation); but Meinong identified existence with actuality, and therefore, for him, the prejudice in favor of the actual is nothing else than the prejudice in favor of the existent. Indeed, if non-existence is considered to be *true of something*, then actuality seems to be the only possible interpretation of existence, and therefore non-actuality the only possible interpretation of *non-existence*; for only in this interpretation of existence can *non-existence* be *true of something*.

[8] For merely deducing $\exists z\neg\mathrm{E}(z)$ from P1.1, *the law for definite descriptions with referential default* is not needed: $\exists z\neg\mathrm{E}(z)$ follows by propositional logic and (so-called) existential generalization from $\mathrm{E}(\iota x(x \neq x)) \supset \exists!x(x \neq x)$ (an instance of P1.1) and $\neg\exists!x(x \neq x)$ (a logical truth).

(B) Nevertheless, there are true singular statements of non-existence, in particular, such as involve definite descriptions whose condition of normality (of "existence and uniqueness") is not fulfilled: *for some predicates* $\Phi[\upsilon]$: $\neg\exists!\upsilon\Phi[\upsilon] \wedge \neg\mathrm{E}(\iota\upsilon\Phi[\upsilon])$.

(C) The predicate of existence is, in singular statements, a metalinguistic predicate "in disguise". Thus, what a sentence of the form $\mathrm{E}(\iota\upsilon\Phi[\upsilon])$ really says (when the "disguise" is seen through) is *that the definite description* $\iota\upsilon\Phi[\upsilon]$ *designates something – and* it designates something if, and only if, $\exists!\upsilon\Phi[\upsilon]$ is true. As an immediate consequence, we obtain, as a schema of truths, the principle P1: $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \equiv \exists!\upsilon\Phi[\upsilon]$.[9]

In nonclassical logic, this ABC can be implemented; in classical logic with *unrestricted dictum de omni*, it cannot be implemented. This is not necessarily a weakness of classical logic. There are two plausible stances vis-à-vis ABC for champions of classical logic with *unrestricted dictum de omni*. The following is the first stance, which, I submit, is somewhat less attractive than the second (which is presented immediately after the first):

First classical stance

Accept (A), *reject*, therefore, (B) – which must be rejected because, given (A) and *the unrestricted dictum de omni*, $\mathrm{E}(\iota\upsilon\Phi[\upsilon])$ is a general schema of truths. *Retain*, however, a (logical) part of (B): *for some predicates* $\Phi[\upsilon]$:

[9]Since Kripke embraces P1, does he also accept the rest of ABC? If he did (he does appear to accept (A) and (B)!), he would be seen to escape the absurdities that arise from P1 via *the paradoxical deduction*; for there is no (internal) inconsistency to ABC. But, in fact, he does not accept the entirety of ABC; if he did, he would be an adherent of *free logic* – which he is not (see [2, p. 62fn17]). This may seem surprising, because accepting vacuous names, in particular, vacuous definite descriptions, *without* "fixing them" by giving them an ersatz referent, *and* at the same time holding on to *the principle of bivalence* seems to be a combination of ideas which is Kripkean (in view of Kripke [2, pp. 60–62]). And does not this combination of ideas require the move from classical to *free logic*? – No, it doesn't; for Russell's theory of singular terms, too, sticks to bivalence and accepts vacuous definite descriptions (albeit only to reduce them). And *divorced* from the view that there is no (proper, real) first-order predicate of existence (cf. footnote 1), Russell's theory of definite descriptions is (or *would* be) for Kripke an alternative way of escaping the absurdities of *the paradoxical deduction* – while maintaining P1 (and (A) and (B)). What one cannot get around when maintaining P1 and avoiding absurdity – whether one follows *free logic* or Russell's theory of definite descriptions – is the departure from classical logic that consists in giving up *the unrestricted dictum de omni*; see the deduction at the end of (ii).

$\neg\exists!\upsilon\Phi[\upsilon]$.[10] The immediate consequence is that P1.1 – $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \supset \exists!z\Phi[\upsilon]$ – cannot be upheld (since there are counterexamples to it), whereas P1.2 – $\exists!\upsilon\Phi[\upsilon] \supset \mathrm{E}(\iota\upsilon\Phi[\upsilon])$ – is a general schema of truths quite trivially. It follows that P1 must be rejected. Moreover, though P1.2 is accepted, there is no substantive connection between $\exists!\upsilon\Phi[\upsilon]$ and $\mathrm{E}(\iota\upsilon\Phi[\upsilon])$ (the latter expression being a general schema of truths, while the former is no such thing). Therefore, fitting the general tenor of classical logic, the rest of (C) should also be *rejected*: The predicate of existence is *not* a metalinguistic predicate in disguise; rather, it expresses a property of *everything* – for example, the property of being self-identical, or the property of being (identical with) something.

The second stance for champions of classical logic with *unrestricted dictum de omni* is this:

Second classical stance

Retain (B), with the immediate consequence that (A) *must be denied*: in classical logic with *unrestricted dictum de omni*, already a part of (B) – $\neg\mathrm{E}(\iota\upsilon\Phi[\upsilon])$, for some predicates $\Phi[\upsilon]$ – contradicts $\forall x\mathrm{E}(x)$. To this extent, the second stance is, indeed, a *Meinongian* stance. Moreover, *deny* (C): The predicate of existence *is not* a metalinguistic predicate in disguise (one certainly will have to admit that, overwhelmingly, it does not even seem to be such a predicate); rather, it expresses a nonlinguistic property of objects which at least one object – o^* – does not have.[11] It follows that P1 is untenable – in view of the untenability of P1.2 due to the truth of $\exists!x(x = o^*) \wedge \neg\mathrm{E}(\iota x(x = o^*))$.[12] One can only maintain a logical part of P1, P1.1, as a general schema of truths, indeed of *logical* truths: $\mathrm{E}(\iota\upsilon\Phi[\upsilon]) \supset \exists!\upsilon\Phi[\upsilon]$.[13] And one ought to do so – following the idea that a *necessary*, though *not* a sufficient, logical condition of the ascription of

[10] How, indeed, could one not allow that $\neg\exists!\upsilon\Phi[\upsilon]$ is true for some predicates?

[11] $\neg\mathrm{E}(o^*)$! This is a consequence of (B) and *the law for definite descriptions with referential default.*

[12] The truth of $\exists!x(x = o^*) \wedge \neg\mathrm{E}(\iota x(x = o^*))$ is a consequence of the logical truth $\exists!x(x = o^*)$ and of (the already derived) truth $\neg\mathrm{E}(o^*)$. The entailment is effected via *the central logical law for definite descriptions*, obtaining $\iota x(x = o^*) = o^*$ from $\exists!x(x = o^*)$, and then via the substitution of identicals, obtaining $\neg\mathrm{E}(\iota x(x = o^*))$ from $\neg\mathrm{E}(o^*)$.

[13] Accepting P1.1 as a schema of logical truth entails accepting $\neg\mathrm{E}(o^*)$ *as a logical truth.* See above section 3, near the end.

existence to the object which is Φ is this: $\iota\upsilon\Phi[\upsilon]$ *properly* (and not just by "special arrangement") *designates something*, which, with logical necessity, is the case if, and only if, $\exists!\upsilon\Phi[\upsilon]$ is true.

Both above-described classical stances manage to avoid the paradox for the existence predicate presented in this paper. The second classical stance does so in a rather more attractive manner than the first (P1.1, retained in the second stance, is – at least for those who are not already confirmed anti-Meinongians – rather more plausible than P1.2, retained in the first stance; see section 3), and it certainly does so in a more attractive manner than the nonclassical approach, which proceeds on the basis of ABC and must deny *the unrestricted dictum de omni* and the logical truth of $\exists!y(y = \iota x F(x))$, and has no rationale for $\iota y(y = \iota x F(x)) = \iota x F(x)$. This attractiveness of the second classical stance gives considerable attractiveness to (the occurrence of) *ontological* non-existence: to the non-existence *of something*, hence to a non-existence which *is not* the object-language expression of the metalinguistic fact that some singular terms do not designate anything (if not subjected to a standard treatment that liberates them from this "defect"). For the second classical stance entails *the non-existence of* o^*.

Is o^* the only object that does not exist? I leave this as an open question within the second classical stance. If o^* were the only object that does not exist, we would still have the truth of Meinongianism, though, historically speaking, it would be a rather deviant Meinongianism. Note that the Frege-Carnap method of treating definite descriptions with referential default always had the drawback that the choice of the artificial referent to be assigned to such descriptions was perfectly arbitrary, with the result that sentences of the form $\Psi[\iota\upsilon\Phi[\upsilon]]$, where $\neg\exists!\upsilon\Phi[\upsilon]$ was true, came out *false* given one choice, and *true* given another. If o^* were the only object that does not exist, this arbitrariness would disappear. And "Nothing" with a capital "N" would be an appropriate name for o^* because o^* – although being (identical to) *something* and in this sense *subsistent* – would be a singularity that with logical necessity is beyond the realm of existence[14] and regarding its intrinsic nature entirely unknowable. Then, if one is fond of paradoxical formulation, of paradox as a *figure of speech*, one might well say, quite in the spirit of paradox-*speaking* Meinong,[15] "It

[14] Remember that under the second classical stance $\neg\mathrm{E}(o^*)$ is a logical truth.

[15] Cf. Meinong [3, p. 9]: "Wer paradoxe Ausdrucksweise liebt, könnte also ganz wohl sagen: es gibt Gegenstände, von denen gilt, daß es dergleichen Gegenstände nicht gibt

is not true that nothing does not exist because it is true that Nothing does not exist."

References

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[3] A. Meinong, *Über Gegenstandstheorie* [*On the theory of objects*], [in:] **Über Gegenstandstheorie. Selbstdarstellung**, Felix Meiner Verlag, Hamburg (1988), pp. 1–51.

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[Who is fond of paradoxical speech, might, therefore, quite well say: there are objects of which it is true that there are no such objects]."