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Talking About Nothing

Abstract. Some singular terms are referentially empty by necessity. Oliver and Smiley have recently introduced the term ‘zilch’ for illustrating this kind of emptiness. The emptiness of ‘zilch’ is supposed to arise from the fact that its extension has been defined by a logically unsatisfiable condition. Casati and Fujikawa disagree with this explanation and claim that ‘zilch’ refers to some null thing. In this paper, I argue that neither of these positions is correct, since, for different reasons, they both misinterpret the phenomenon of referential emptiness. As an alternative, I propose a representationalist account of emptiness, which can explain the properties of ‘zilch’ and similar terms more effectively.

Keywords: empty singular terms; reference; zilch; non-relational representation

1. Introducing necessarily empty terms

Metasemantic theories can distinguish between two opposite sources of referential emptiness. On the one hand, the emptiness of some singular expressions can be said to be based on merely contingent facts. The noun phrase ‘the king of France’ is currently empty because France ceased to be a monarchy in 1870. The possessive construction ‘your car’ fails to refer, if the addressee of ‘you’ has never owned a car. The common feature of such phrases and constructions is that their semantic properties are not set once for all: had the world turned out differently in the relevant respects, none of these expressions would have been empty. On the other hand, there are singular expressions which are referentially empty by necessity. Necessarily empty expressions are empty already at

the moment of their introduction into the language and it is blatantly impossible to repair their semantic defectiveness.

There are at least three subtypes among the sources of this second kind of emptiness. One of these is *literary fiction*. Authors of prose works often make identifiable their protagonists by introducing an ordinary-seeming proper name. So did Conan Doyle, the creator of the famous literary character, Sherlock Holmes. From a syntactic/grammatical point of view, ‘Sherlock Holmes’ behaves in Conan Doyle’s texts as an ordinary, referring name. It has the primary formal function of making possible predications, property attributions and other kinds of singular statements. Semantically, however, ‘Sherlock Holmes’ is empty, and it is so because there was no flesh-and-blood person in the world to whom Conan Doyle intended to refer when he has written down the first token of that name. There are familiar Kripkean reasons to assume that the semantic career of proper names is determined by the circumstances under which they are introduced into the language. If this assumption is correct, then character names like ‘Sherlock Holmes’ remain empty expressions in all of their actual and future occurrences in literary texts.¹

Necessarily empty expressions may also originate from *cognitive and communicative errors*. In talking about her friend John, a speaker says ‘He went to the max’ intending to express her opinion that John did his best in a very difficult situation. The hearer overhears the ‘max’ part of the sentence and interprets it as if it were a proper name and asks: ‘What was the reason for doing that? And anyway, who is Max?’² ‘Max’ was introduced into the language of the hearer as a name which purports to refer to an unknown person, but we interpreters know that the introductory act was based on a communicative error. ‘Max’ does not and cannot refer to anyone, neither in the question of the hearer, nor in any other sentence type. Compared with character names, Max-type empty names have a relatively short lifespan since they don’t have connections to other parts of their host language.

¹ It is worth mentioning that Kripke’s view is *not* that all possible occurrences of character names are necessarily empty. Kripke claims that a single name like ‘Holmes’ can be used in two incompatible ways. ‘Holmes’ is necessarily empty when it is used in the intra-fictional contexts of literary works. But if it is used in an extra-fictional context, it can be taken to refer to the fictional character, Holmes. Kripke is inclined to draw the conclusion that character names are fraught with systematic semantic ambiguity. For more on this see [Kripke, 2013].

² The example is borrowed from [Kroon, 2003].

The last subtype comprises cases that may be called *classroom empty terms*. Such terms are introduced into theoretical vocabularies for purposes of argumentation. If a linguist or a logician wants to demonstrate how necessarily empty terms can become part of their technical language, they may construct suitable definitions for introducing these terms. Here is an example. Now we know and are pretty confident that France is not an empire. Let us, then, introduce the name ‘Nappy’ with the following definition: ‘Nappy’ refers to the actual present emperor of France, whoever that may be, and if there is no such emperor, ‘Nappy’ refers to nothing.³ Given that the world does not satisfy the first criterion of the definition, ‘Nappy’ should be interpreted in accordance with the second criterion, that is, as a non-referring name. ‘Nappy’ differs from character names and erroneously introduced names in that its (necessary) referential emptiness is fixed in an explicit way. This feature has undoubtedly some theoretical importance. For if a term or name is empty by its very definition, then the phenomenon of emptiness can be studied in its most clearest appearance. There is no need to take into consideration such additional explanatory factors as the nature of fictional discourse or the communicative mistakes of speakers/hearers.

With respect to classroom empty terms, an interesting contribution has been recently made by [Oliver and Smiley \[2013\]](#). They argue, plausibly enough, that the necessary emptiness of such terms means that they never refer to anything. ‘Anything’ is proposed to be taken in an encompassing sense: emptiness, according to Oliver and Smiley, excludes the availability of all types of reference candidates, concrete and abstract, real and imaginary, possible and impossible entities. Nevertheless, we can use these terms as genuine terms in our semantical or logical investigations. Another contribution to this debate is provided by [Casati and Fujikawa \[2015\]](#). They challenge Oliver and Smiley’s view as too narrow, and contend that classroom empty terms can also be interpreted as referring to some null thing. By this they mean, broadly, that the non-existence of a thing does not entail referential defectiveness. In what follows I first try to show that both of these conflicting positions suffer from some internal shortcomings. On my view, there is a relation between the concept of ‘referential emptiness’ and the way we intend to

³ Of course, there might be a French emperor in the future. But this is irrelevant to our definition, because ‘actual’ should be read in it as a non-indexical noun modifier. This is why ‘Nappy’ is necessarily empty. The example is to be found in [\[Salmon, 1998\]](#).

use our referentially empty terms that has not been properly clarified in this debate. My second aim is therefore to outline an approach which may be able to resolve this issue and is capable of further development.

2. Misleading accounts of zilch

The slang noun ‘zilch’ is used for indicating the value of nothing or zero. Oliver and Smiley [2013] introduce the theoretical counterpart of this noun by the descriptive condition $\neg x x \neq x$. Evidently, the condition is unsatisfiable in consistent quantificational domains, where every thing is self-identical. Oliver and Smiley are apparently committed to consistency, so when they propose to fix the reference of ‘zilch’ with ‘the non-self-identical thing’, they obviously succeed in creating a classroom empty term. Becoming thus part of the vocabulary, ‘zilch’ can be employed for generating various singular constructions. But how can this be done if the term has been defined to be empty? The crucial idea is that we should differentiate between strong ($=$) and weak identity (\equiv). Weak identity becomes significant only in such cases where the terms are empty at each side of the identity sign. If both a and b are empty, $a = b$ is false, but $a \equiv b$ comes out as true. This gives us $\text{zilch} \equiv \text{zilch}$, which should then be evaluated as true. Weak identity statements involving ‘zilch’ illustrate that we can compose *true* singular statements from empty constituents. Now, we can go one step further. Oliver and Smiley claim that the strong/weak distinction can also be extended to predicates. A predicate F can be said to be strong, if a is empty and it is analytic that the statement Fa is false. Otherwise, F is weak. Semantic predicates are weak on this approach. The explanation is the same as in the case of the identity sign. For example, ‘refers’ is weak in ‘ a refers to a ’, which expresses something true if a is empty. As an instance of this scheme, ‘zilch’ refers to zilch should be viewed clearly as true. Other members of the group of weak semantic predicates (‘denotes’, ‘true of’, etc.) are also capable of generating true statements.

In contrast, combining empty terms with strong predicates will inevitably lead to false statements. Consider the strong ontological predicate ‘is part of our world’. This predicate presupposes the existence of its argument: if a thing is part of our world, then that thing must exist. Contrapositively, when a is empty because there is no such thing as a , the statement a is part of our world will be false. ‘Zilch’ is empty, thus

the statement *zilch is part of our world* is false, too. Such examples could be multiplied quite easily.

Taken as a whole, Oliver and Smiley's account of 'zilch' can be summed up in the following points:

TRUTH: Simple statements involving 'zilch' are true if (i) 'zilch' occurs at both sides of the identity sign, or (ii) 'zilch' occurs in the argument position of a weak semantic predicate.

FALSITY: Simple statements involving 'zilch' are false if (i) 'zilch' occurs at one side of the identity sign with a non-empty term at the other side, or (ii) 'zilch' occurs in the argument position of a strong predicate.

Unfortunately, Oliver and Smiley are silent about an important question. They don't tell us how a sentence involving a classroom empty term like 'zilch' can be evaluated for truth and falsity at all. By this, I mean that they do not make any attempt to explain why empty terms can be tolerated by their logic. In classical frameworks of logic each singular term must refer to a unique thing in the quantificational domain. In such frameworks, sentences containing empty terms cannot be evaluated for truth or falsity. Thus, Oliver and Smiley's background logic cannot be classical. Free logics are much more liberal in this regard.⁴ In order to back up TRUTH and FALSITY, Oliver and Smiley's could perhaps choose a particular version of free logic: the question is which one.

Positive free logics are in harmony with TRUTH. Free logic with a positive single-domain semantics can assign the truth-value truth to referentially deficient sentences without positing such ontologically suspicious things as subsistent entities. Negative free logics seem to support to a certain extent FALSITY. In negative free logics all referentially deficient sentences have to be evaluated as false. The problem is, however, that there is no hybrid free logic on which TRUTH and FALSITY could be regarded as *simultaneously* correct.

As a way out, Oliver and Smiley could perhaps say that TRUTH is effective only for a very small group of specific sentences. After isolating these sentences, one can treat all other cases uniformly by applying FALSITY. In this way, they might demonstrate that 'zilch' can be best interpreted with a negative free logic as a background logic.

A problem still remains. Lambert [2001] argues that the logic of identity is non-classical in negative free logics. Lambert points out that

⁴ For an interesting survey of this field see [Nolt, 2006].

if ‘a’ is referentially defective, the reflexive identity statement *a is self-identical* counts as false in such frameworks. Priest [2014a,b] seems to agree that in cases of necessarily empty terms a non-classical notion of identity is required. But now recall that ‘zilch’ was defined by Oliver and Smiley with the unsatisfiable condition $\lnot x x \neq x$. If Lambert and Priest are right concerning identity, then this condition loses its necessary status. As a consequence, $\lnot x x \neq x$ should be seen as an insufficient means for defining empty terms. What all of the above shows, I believe, is that Oliver and Smiley’s account of ‘zilch’ is untenable.

Casati and Fujikawa [2015] accept the claim according to which ‘zilch’ can be introduced into our language as a thoroughly non-referring term. But they think that Oliver and Smiley’s view is incomplete because it leaves out of consideration that ‘zilch’ may occasionally be used to refer to *something*. At least they say so. But what is this alleged something to which ‘zilch’ may refer? Two types of reference candidate are mentioned.

The first type of reference candidate has been recognized by scientists. Casati and Fujikawa cite the work of Bunge [1966] who claims that scientific research sometimes accepts the existence of null individuals. For example, in optics a null individual, l_0 , is mentioned, which leaves unchanged the things to which it has been joined. If science quantifies only over existent things, then l_0 , seems to be a good candidate for being a nil quantity that can be named ‘nothing’ or ‘zilch’.

Meinongian object theories have provided a second type of reference candidate. Meinongian theorists are committed to a certain version of the Independence Principle which states that the so-being of an object is not affected by its non-being. The core idea is that although some objects do not exist, we can nevertheless talk about them and make genuine statements about their characterizing properties. In short, there are non-existent objects. The proposal is, then, that ‘zilch’ can be taken to refer to a certain Meinongian non-existent object.

I do not think that Casati and Fujikawa’s argumentative strategy can succeed. As already mentioned, we have independent reasons to think that the referential profile of singular terms is determined by the circumstances under which they are introduced into the language. ‘Zilch’ has been introduced into the logical vocabulary with the intent of creating a parade example of referential emptiness. It would be quite odd to hear the following statement from the introducers: “We have designed ‘zilch’ to be a referentially empty term, but we will use it to refer to a null individual or a non-existent object.” Of course, one can *use* a technical

term in more than one way. But the referential profile of technical terms cannot be changed on the basis of usage alone. The communicative intention to use 'zilch' for referring to something is not enough in itself to endow this term with a referential capacity.

This observation leads back to our opening question: how can a necessarily empty term like 'zilch' be used for composing various singular constructions? The claim that an extensional statement 'zilch is F ' may be meaningful, and perhaps even true, seems still to be puzzling and somewhat incoherent.

My proposal is to change our perspective for a better understanding of the problem of emptiness. In my view, instead of questioning what 'zilch' refers to, we should be asking a different question: what is the representational content of 'zilch'. This is the question to which I now turn.

3. A representationalist proposal for solving the emptiness problem

The representationalist approach to empty terms is hardly new. [Goodman \[1968\]](#) was among the firsts to argue that 'represent' can perform two interrelated but distinct functions of depiction. Artistic paintings represent often existing objects, said Goodman, but there are also paintings that do not represent anything. A painting of a dragon is one of these cases. Yet to say this sounds a bit paradoxical. What could it mean that a painting does not represent anything but it is a painting of a dragon? If 'represent' is taken to be a two-place predicate with an argument place for objects, then the paradox cannot be resolved. But Goodman pointed out that 'represent' can also be used as an unbreakable one-place predicate. If the predicate is used in this sense, we can say that a painting depicting a dragon is not a representation of a dragon, but instead a dragon-representation. In general, the idea is that one should conceptually differentiate between the relational, two-place construction *representation of o* and the non-relational, one place construction *o -representation*. The key difference is that while the former has an in-built requirement of the actual existence of the object o , the latter is entirely free from existential requirements.

The distinction can be employed in the theory of linguistic representation, too.⁵ As we have seen, we understand phrases and sentences containing empty terms without great intellectual effort, but this intuitive datum creates a recalcitrant problem for theories of reference. Meinongians aside, no one wants to say that even though there is no such object as *o*, a particular term, *t*, refers to *o*. The Goodmanian idea of non-relational representation comes to the rescue here. According to this idea, we are entitled to say that referential emptiness does not entail representational emptiness. This is tantamount to saying that referentially empty terms are not semantically idle: they can contribute to phrasal and sentential contents with non-relational representations.

Let us see, first, how the representationalist approach works in the case of literary fiction. ‘Sherlock Holmes’ functions as a syntactic/grammatical name in the fiction-internal contexts of Conan Doyle’s texts, but from a semantic point of view it is a referentially empty expression. If so, what kind of representational content can we attribute to it?

One might be tempted to argue like [Berto \[2012\]](#), [Crane \[2013\]](#) and many others that Holmes is represented in the fiction as having a set of individuating properties. These include the property of being a detective, the property of living at 221B Baker Street, the property of being a pipe-smoker, and so forth. And from this it might be inferred that the representational content of the character name ‘Sherlock Holmes’ somehow unifies the elements of this property set. The premises of this line of thought are partly wrong, partly right. It is incorrect, or at least misleading, to say that Holmes is represented in the fiction as having such and such properties. Since there is no such person as Holmes, Conan Doyle was certainly not in a position to portray “him” with the above-mentioned properties. In other words, there is no principled way of separating the fictional character from its individuating properties. But it is not entirely incorrect to suggest that a fictional character becomes accessible to us readers through property representations. We just need to recognize that the character name is one of the representational elements Conan Doyle applied in his texts. The fictional character itself can be taken to be a rather complex linguistic network of non-relational Holmes–representations. ‘Sherlock Holmes’ is a distinguished part of this network in that it provides us the most direct and specific access

⁵ [Rey \[2006\]](#), [Burge \[2010\]](#), [Collins \[2014\]](#) and [Sainsbury \[2018\]](#) have recently argued in different ways for the existence of non-relational linguistic representations.

to the character in question. Other sorts of singular expression like pronouns (e.g. ‘he’), complex demonstratives (e.g. ‘that man’), or specific indefinites (e.g. ‘a detective’) are also elements of the same linguistic network with more or less specific representational content.⁶ The important point is that by processing Conan Doyle’s texts, readers understand and interpret the occurrences of the character name ‘Sherlock Holmes’ as having or expressing a certain piece of non-relational representational content.

Let us suppose we are on the right track. What should we then say about ‘zilch’? ‘Zilch’ differs from ‘Sherlock Holmes’ in certain respects. ‘Sherlock Holmes’ has been introduced by Conan Doyle as if it were an ordinary referring name. The context of the introduction was purely fictional. None of these is true of ‘zilch’. As one may expect, this simplifies significantly our representationalist analysis. The first thing to say is that when Oliver and Smiley introduced ‘zilch’, they made a couple of singular statements involving the term. For instance, they uttered the following sentences:

Our proposal, then, is to introduce ‘zilch’ as a paradigm empty term, empty as a matter of logical necessity’ and ‘We have spoken of a weak predicate’s being true of zilch and we shall also say that the corresponding property or relation holds of zilch.’

[[Oliver and Smiley, 2013](#), pp. 602–603]

In this way, they have established a linguistic network of non-relational zilch-representations. This is independent from the question of whether or not the condition $\exists x x \neq x$ was suitable to define the emptiness of extension of the term. ‘Zilch’ became part of the logical vocabulary used by Oliver and Smiley and it surely failed to refer to anything. If we want to make further statements about ‘zilch’, we may turn, for example, to pronouns (e.g. ‘it’), complex demonstratives (e.g. ‘this expression’), or possessive phrases (e.g. Oliver and Smiley’s term’). Additionally, some predicates are also available for use (e.g. ‘is empty’ or ‘is identical with’). All of these expressions are elements of the same representational network. Understanding statements of the form ‘zilch is *F*’ will not create problems for those who are acquainted with this network. We can even risk the claim that statements involving ‘zilch’ are true if the representational content they express can be derived by a reliable method from

⁶ For a systematic account of non-relational representational networks see [[Vecsey, 2019](#)].

combining some elements of the network. Good examples are ‘Zilch is nothing’, which is intuitively true, and ‘Zilch is a living creature’, which is intuitively false on this analysis.

There are many details that would need to be worked out to ensure that the representationalist proposal provides a plausible solution to the problem of referential emptiness. But I hope the overall picture is clear: necessarily empty terms can be interpreted as having or expressing non-relational, representational content. Individual contents become parts of larger representational networks. This explains why such terms can be involved in meaningful and perhaps true singular statements in spite of the fact that they have no worldly correlates.

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