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Category Mistakes: A Definition and Consideration of Their Meaningfulness

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Introduction

Many thinkers invoke the idea of a category mistake to point out that some kind of error has been made. Indeed, identifying a sentence that contains a category mistake is invaluable for thinkers. This is because sentences that contain category mistakes seem to distort reasoning and compromise the commonplace laws of logic (as we shall see later). At the same time, many thinkers who benefit from the idea of a category mistake offer little in the way of definition. Indeed, definitions of a category mistake are rare. Gilbert Ryle, for example, who (in)famously used the idea to critique dualist and materialist notions of the mind, offered no systematic definition. Despite this, others have associated a category mistake with a functional analysis. On this account a subject-term denotes an entity and a predicate denotes a function. A sentence that contains a category mistake is put together with a subject-term that denotes an object that is not in the domain of the function that the predicate denotes. This tends to the conclusion that such sentences are semantically undefined and that suggests that such sentences are meaningless[1]. I provide a slightly different intuition-based definition below. The definition provides criteria for identifying a sentence that contains a category mistakes. Such criteria call for justifications. Thus, the definition provides a way to identify a sentence that contains a category mistake *and* justify the claim that the sentence contains the mistake by saying exactly why. This leads to thinking of sentences that contain category mistakes as necessarily false rather than undefined and this suggest that they are meaningful. As I proceed, certain problems with the definition are foreseen and addressed. Last, I consider some recent writing on the topic of category mistakes and meaning. A vocal proponent of the school of thought that holds that sentences containing category mistakes are meaningful is Ofra Magidor (2009, 2014, 2016). However, though I agree with her position, I disagree with most of the arguments she thinks supports it. I end by saying why.

I will start by providing a definition of Nelson Goodman's notion of a 'schema' as this will figure in the definition of category mistakes provided below (Goodman 1976). After

[1] Ofra Magidor (2009, 2014) offers an overview.

this, I will introduce a first intuition-based definition of a category mistake. I will introduce the thinking that lies behind this definition and provide a more formal reason to accept this intuition. I will, then, deal with problems related to Russell's understanding of non-referring definite descriptions and sentences that contain them, and necessary falsehoods and sentences that contain them, both of which may seem to present problems for the definition I provide. In working through the problems, the definition is refined, and sentences that contain category mistakes are seen to be distinct from sentences that contain a variety of other errors. For example, it is shown that a sentence like 'Whales are fish' doesn't contain a category mistake. Next, I will introduce Strawson's understanding of non-referring definite descriptions. This introduces the kind of grounds for saying sentences that contain category mistakes are meaningful. Last, I will consider some of Ofra Magidor's arguments for taking up that very same position. I will point out that in some ways her arguments suggest that sentences that contain category mistakes are actually *meaningless*. But, mostly, I show her arguments for thinking that such sentences are meaningful lack sufficiency.[2]

Some Terms and Definitions

Before proceeding, I will say something about the idea of a 'schema' since this is utilised in the definition of a category mistake. In talking of a schema, I am drawing on Nelson Goodman (Goodman, 1979). A schema is a set of predicates of some type. The predicates are related but different. The colour-schema is a good example. The temperature-schema (Fahrenheit or Celsius) is another example. And the weather-schema a third. Some schemata have predicates that are associated with sets of entities that do not intersect. But, perhaps, not every schema is like that. The weather-schema may not be like that. In this paper, when I talk about schema below, I mean to talk about only those schemata that have predicates that are associated with non-intersecting sets of entities (at any given time). With this in mind, I now turn to an initial definition of a category mistake.

A First Definition of a Category Mistake

One initial definition of a category mistake is this:

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[2] I should note, in this paper, I restrict my survey to parts of her 2009 paper on the topic.

> (C) If *A* is a subject term and *S* a schema where *F* is a predicate of *S* and *F'* stands for any other predicate of *S*, *A is F* contains a category mistake iff what *A* denotes does not belong to the set of things denoted by *F* nor to the set of things denoted by *F'* for every substitution of *F'* with a predicate of *S*.

This definition will need to be changed. As we go along and try to understand it and defend or amend it given certain kinds of criticism, we will come to see why. The first thing to do is to explain why it might be appealing as it stands.

When we consider things that do and do not fall under the predicates of a schema, *S*, we can divide these into two classes. On the one hand, there are things of which the following principle is true:

> (P1) *x* is *F* or *x* is *F'* but *x* is not both *F* and *F'*.

On the other hand, there are things of which the following is true:

> (P2) *x* is not *F* and *x* is not *F'*.

For each principle and any instance of application, justifications should be given. Specifically, we might be able to distinguish the two classes by thinking of some more basic criteria for being *F* or *F'*. Ultimately, if we can do this, we can provide justifications for thinking a sentence contains a category mistake, and if our definition can be defended, we can, with these justifications in hand, talk of identifying category mistakes with good reason.

Here is an example of how we may be able to distinguish the aforementioned classes. Let *S* = the colour schema, *F* = green, and *F'* = any other predicate of the colour-schema. Then, in accordance with the principles, we might say there are two sets of objects. Say *X* denotes the first set of objects and say *Y* denotes the second set of objects. Then, group *X* includes those and only those things which fall under *F* or *F'*. And, group *Y* includes just those things that do not fall under *F* nor under *F'*. The contention is that we may justify the division. To do this, we can posit some more basic criteria. In this case, for example, we might say that those and only those things that emit or reflect light fall into *X* since the predicates of *S* denote frequencies of light emitted or reflected. Given this, certain things, such as the moon, which reflect or emit light at a certain frequency, can be justifiably said to fall into *X*. But another set of things, such as Donald's idea, which do not reflect or emit light at any frequency, can justifiably be said to fall into *Y*. Now, just when objects of the *Y* group are attributed predicates of the *S* schema, we have a category mistake and this is what our initial definition above ultimately tries to capture. Justifications for saying that Donald's idea does not fall under the predicates of *S* become justifications for saying a sentence like ‘Donald’s idea is green’ is a category mistake. Thus, our definition allows us to identify a category mistake and justify saying the sentence contains such a mistake.

If all this is true for all sentences that contain category mistakes, then we might be able to distinguish sentences that contain category mistakes from sentences that do not, but might superficially appear to. For example, consider the following two sentences:

(1) Water is mortal
(2) Whales are fish

According to our criteria, (1) is a category mistake. First, water is not the kind of thing that is apt to be fall under the predicates ‘mortal’ or ‘immortal’. This is because those and only those things that possess certain biological predicates can be considered to be mortal or immortal. But (2) isn’t a category mistake, because whales *are* the kinds of thing that are apt to be classified biologically as one class of animal (i.e. fish) as opposed to another class (i.e. mammals, reptiles, etc.). (We may assume that the labels associated with each class of animal constitutes a schema.) Nevertheless, (2) is false since whales are not rightly labelled fish. There is, then, a division to be had between a sentence that contains a category mistake and a statement that is false.

Another reason to think that we should divide things up according to the two principles above is the following argument. Assume again that *S* is a schema and *F* and *F’* are predicates of *S* as described above, denoting disjoint sets of objects. Assume further that *A* is a term that names some actual entity. Last, assume that the following sentences are false:

(3) *A* is *F*
(4) *A* is *F’*

To fail to reject (P1) for objects denoted by *A*, would lead to an easily derivable absurdity. We might accept absurdity as *indicative* of a category mistake, as Ryle did (Ryle, 1949). But the general point here is that if there are good reasons to hold that (3) and (4) are false, then (P1) must be rejected for the kind of objects named by *A.* Providing criteria, like those given above, does provide good reasons to accept (3) and (4) are false. Let, for example, *A* = Donald’s idea. We know *a priori* it neither falls under *F* nor *F’* because *A*, *by definition*, does not denote the kind of thing that reflects or emits light (relative to the schema we supposed above). Rejecting (P1), for the thing denoted by *A*, while accepting that we have given no reason to think that we cannot call sentences like (3) and (4) untrue, naturally leads us to (P2).

This is what the definition of category mistakes embodies.

We now turn our attention to an obvious problem with our definition: non-referring definite descriptions.

Russell on Definite Descriptions

To understand the problem, let's look at an example. Let *S* denote any schema whatsoever that applies to human individuals and let *F* stand for a particular predicate of *S* and let *F'* stand for any other predicate of *S*. Further, let it be the case that if anything is *F*, it is not *F'* and if anything is *F'*, it is not *F* (which is a consequence of the kind of schema being considered). Perhaps, *S* is the height-scale. Now, consider the following set of sentences:

(5) The present Queen of France is *F*

(6) The present Queen of France is *F'*

Russell thought that we should say that sentences like (5) and (6) are false. I will assume he was correct. This seems to suggest a problem. These sentences look very much like sentences that contain category mistakes as defined. For example, let *S* denote the schema of height measured in feet and inches. Now consider the following set of sentences:

(7) My idea is <u>6ft and 2 inches.</u>

(8) The present Queen of France is <u>6ft and 2 inches.</u>

Whatever predicate from *S* that we substitute for the underlined sections of (7) and (8) just won't do. Again, we can justify these claims. First, with respect to (7), only those objects that are extended along the relevant dimensions can possess height. Second, with respect to (8), only those individuals that exist possess height.

So, is this a problem? Not really, because it's not too difficult to update the definition in a bid to mark a clear difference. We can introduce modality into the definition:

> (CA) If *A* is a subject term and *S* a schema where *F* is a predicate of *S* and *F'* stands for any other predicate of *S*, *A is F* contains a category mistake iff what *A* denotes does not belong to the set of things denoted by *F* nor to the set of things denoted by *F'* in all possible worlds for every substitution of *F*' with a predicate of *S*.

By this definition, (5), (6) and (8) are not category mistakes because they (a) include an expression that *may* refer to an individual, and (b) if the expression refers to an individual, then it is necessary that it denotes an individual who falls under one of the predicates of *S* but fails to fall under any other predicates of *S*.

As for (P1) and (P2), we can note that: (a) anything that the subject term in (7) denotes does not fall into the class of objects associated with (P1) and falls into the class of objects associated with (P2) in all possible worlds in which that subject term refers; whereas, (b) in any world in which the subject term in (8) refers, what it denotes falls into the class of objects associated with (P1). This is justified on account of the assumption that if 'the present Queen of France' refers, it will refer to an individual, and the predicates of schema *S*, which mark height, denote disjoint sets of individuals.

Necessary Falsehoods

We now face another problem. What about necessary falsehoods? Consider the following set of sentences:

(9) It is necessarily false that water is not H2O

(10) It is necessarily false that water is C2H6O

These do not present a problem for the above definition of category mistakes since, for example, the predicates belong to the same kind of schema, and the objects being discussed fall under some predicate of that schema. The schema in question is a schema in which predicates are constructed based on atomic relations. And the subject terms name objects that readily fall under one but no more of these predicates.

But there are more outrageous kinds of assertion that might present our definition with a problem. Consider the following sentence:

(11) Square circles are green

This, it is said, is impossible and, thus, necessarily *false*. But, moreover, if the subject term denotes an object, it seems to denote an object that could never fall under the predicate 'green' nor any of the other predicates of the colour-schema. The expression 'square circle' is not like the expression 'the present Queen of France'. The latter term may refer to something at some possible world, but the former cannot refer to anything at any possible world. So, is (11) a category mistake? And, if it is, isn't any sentence that connects a square circle to a predicate a sentence that contains a category mistake? For example, consider the following set of sentences:

> (12) Square circles are shapes
> (13) Square circles are equilateral
> (14) Square circles are circular

Are all of these sentences category mistakes?
First of all, we might interpret (11) in the following way:

> (15) A square that is a circle is green.

We may take this to presuppose a commitment to the following sentence:

> (16) There is a square that is circular.

This sentence, by our definition, is said not to be a category mistake. This is justified on the basis that squares do fall into the class of things that may be called circular relative to a shape-schema that attributes predicates like 'circular', 'triangular', 'rectangular', etc. to things that possess shape. Furthermore, presumably, things that fall under shape-predicates fall under colour-predicates. We can contrast this with a sentence like this:

> (17) A green idea is circular

Presumably, following a similar kind of reasoning to the above, we can conclude that the sentence presupposes the following sentence:

> (18) There is an idea that is green

This is a sentence that contains a category mistake on the grounds that ideas do not fall into the class of things that are attended by any predicates of the colour-schema on the basis ideas do not emit or reflect light. Furthermore, as stated above, ideas do not fall under predicates of the colour-schema.

Ultimately, then, (11) can be said to be based on a simple error, whereas (17) is based on a category mistake. The same analysis for (11) can be given for sentences (12)-(14). The question, however, still remains is (11), itself, a category mistake? For it might be that a simple error can lead to a category mistake.

Usually, when scholars talk about category mistakes, they don't mention sentences like (11). So, perhaps, we should try to prevent (11) from being treated as a sentence that contains a category mistake. We have presumed that both sentences like (11) and sentences containing category mistakes are necessarily false and both include subject-terms naming things that fail to fall under the predicates of a particular schema. In fact, (11) contains a subject term that denotes an object that cannot fall under the predicate of any schema (or at least no schema whose predicates apply to objects in possible worlds). That is because the subject term in question names nothing in any possible world. This, however, allows us to alter the definition to mark a distinction between sentences like (11) and sentences that contain category mistakes:

> (CAT) If *A* is a subject term that refers to an object in some possible world and *S* a schema where *F* is a predicate of *S* and *F'* stands for any other predicate of *S*, *A is F* contains a category mistake iff what *A* denotes does not belong to the set of things denoted by *F* nor to the set of things denoted by *F'* in any possible world for every substitution of *F'* with a predicate of *S*.

That said, we can conclude there are (a) either two types of category mistakes, those including sentences that meet the criteria set out by (CAT), and those containing subject-terms that fail to refer anywhere possible; or (b) there is one type of category mistake, that associated with (CAT). The point here is that we have the ability to include or exclude sentences like (11) if we so wish.

Before moving on, I would like to consider one last kind of sentence:

> (19) Square circles are polymeric-monomers

Both subject-term and predicate-term fail to refer to anything in any possible situation. 'Square circle' refers to no object, and 'polymeric-monomer' refers to no set of things (or no function that takes an object to a truth value) in any possible worlds. To pose the question, then, is (19) a sentence that contains a category mistake? Our definition does not evaluate it as such on the basis there is no schema of which 'polymeric-monomer' is a predicate. What if we constructed one, *S#*. Say, now, the schema contained two predicates 'polymeric-monomer' and 'monomeric-polymer'. And, now, consider the following sentence:

> (20) Green circles are polymeric-monomers

Do we have a category mistake? The subject-term names something for sure. But it names nothing that falls under any of the predicates of *S#.* This is necessarily true. The predicates of *S#* denote the empty set (or no function that delivers a 'true' truth-value). Again, we can choose to include or exclude these sentences. To exclude them, we can change the definition thus:

> (CATS) If *A* is a subject term that refers to an object in some possible world and *S* a schema where *F* is a predicate of *S* and *F'* stands for any other predicate of *S* and the predicates of *S* refer at some possible world, then *A is F* contains a category mistake iff what *A* denotes does not belong to the set of things denoted by *F* nor to the set of things denoted by *F'* in any possible world for every substitution of *F'* with a predicate of *S*.

I want, now, to briefly summarise, before passing on to considering the meaningfulness of sentences that contain category mistakes.

Category Mistakes and Other Mistakes

We have distinguished sentences like:

(21) Donald's idea is green

from sentences like:

(22) Whales are fish
(23) The present Queen of France is 6ft and 2 inches
(24) It is necessarily false that water is not H2O
(25) Square circles are green
(26) Green circles are polymeric-monomers
(27) Square circles are polymeric-monomers

This is to say, sentences containing category mistakes are distinct from: (a) sentences that are false; (b) sentences that contain non-referring definite descriptions; (c) sentences that are necessarily false; (d) sentences that contain necessarily non-referring subject-terms; (e) sentences that contain necessarily non-referring predicate-terms; and (f) sentences that contain a necessarily non-referring subject term and a necessarily non-referring predicate term.

It's time now to think about whether or not sentences that contain category mistakes are meaningful or not. First, Fregean reasons to think that such sentences have meaning are introduced. Next, Ofra Magidor's (2009) arguments for thinking that such sentences are meaningful are examined. Unfortunately, her reasons often point in the other direction or lack sufficiency.

Frege-Strawson on Non-Referring Definite Descriptions

Above we made a reference to how Russell thought of non-referring definite descriptions and sentences that contained them. Another understanding of non-referring definite descriptions is the Frege-Strawson account. Here, we just accept that sentences that contain definite descriptions that fail to refer are undefined with respect to a truth-value. So, for example, for Strawson, an assertion like (8) is based on a *presupposition.* The presupposition includes an existential and uniqueness claim. That is, (8) presupposes that what 'the present Queen of France' denotes *exists* and presupposes it is *unique*. But, according to Strawson, the existence and uniqueness claims are not part of the content of (8). That sentence, he claims, is not, itself, false or true. Rather, it is the *presupposition* that is false. Based on that, (8) fails to refer and fails to express a proposition. That is, (8) fails to express anything that can be evaluated for truth. (Strawson 1950).

Yet, Strawson emphasises that this does not mean the sentence is 'insignificant' or *meaningless.* His position is summed up here:

> [W]hen we utter the sentence without in fact mentioning anybody by the use of the phrase, "The [Queen] of France", the sentence doesn't fail to be significant: we simply fail to say anything true or false because we simply fail to mention anybody by this particular use of that perfectly significant phrase (Strawson 1950, 331).

It has been pointed out that the connection between truth and meaning is not a given. This is obvious from the simple fact that there are quite a few many sentences that are never evaluated for truth but have meaning (e.g. interrogatives, imperatives, etc.) The relevance of the point that Strawson is making, however, is that the type of sentence that *is* considered for truth, even if neither true nor false, is meaningful. So, why does he think this? According to Strawson, the *significance* of the non-referring definite description lies in the fact that it *could* be used to refer to someone.

> The fact that the sentence and the expression, respectively, are significant just is the fact that the sentence could be used, in certain circumstances, to say something true or false, that the expression, could be used, in certain circumstances to mention a particular person; and to know their meaning is to know what sort of circumstances

these are (Strawson 1950, 330-331)

If we take Strawson's conclusions seriously, then, all that matters is that we should know when a sentence could be true or false. So far as the analysis of category mistakes goes, thus far, we already know this–since we know the value of a sentence that contains a category mistake at every possible world. Grounding our conclusion on this, we can conclude category mistakes are meaningful.

Another Fregean take on meaning is provided by Aaron Sloman. Sloman seems to suggest that even if sentences are undefined and necessarily so, they nonetheless are *not* meaningless. Putting this claim to one side, what Sloman emphasises is that so long as there is a procedure for judging whether or not a sentence is true or false, even if that procedure is never satisfied, there is meaning. Well, in our case we have criteria that provide grounds for saying that a sentence is a sentence that contains a category mistake. Thus, we may, again, conclude that sentences that contain category mistakes, as defined, possess meaning.

Ofra Magidor's Arguments Against Meaninglessness

A recent advocate of the notion that sentences that contain category mistakes are meaningful is Ofra Magidor. She presents a number of arguments that she thinks supports her position. I will introduce her arguments below and say why they are found insufficient.[3]

The Semantic Problem

A simple subject predicate sentence is composed of a term that denotes an entity, and a term that denotes a function. A sentence denotes a truth-predicate. 'Socrates', for example, denotes an individual; 'mortal' denotes a function; and 'Socrates is mortal' denotes a truth-value. The function takes an entity and delivers the truth-value. More complex predicates and other expressions denote other kinds of entity and function. So, for example, a predicate that corresponds to a verb that takes a direct and indirect object denotes a function that delivers a function. Assuming this kind of semantic framework, we can explain what goes wrong with a sentence that contains a category mistake like the following:

[3] To make clear, again, I am restricting my review to her 2009 paper but do not considaer the argument from metaphor here.

(28) Two is green.

What goes wrong is this, what 'two' denotes is not in the domain of the function that 'green' denotes. This seems simple enough. However, Magidor thinks that this leads to absurd conclusions. Consider, for example, the sentence:

(29) Two is prime

According to the kind of functional analysis in question, 'two' denotes a function. In the domain of the function are other functions. In the domain of these functions are concrete-entities. The expression 'prime', on the other hand, denotes a function, in the domain of which are abstract-entities. Since, now, 'two' denotes something that does not fall into the domain of what the function 'prime' denotes, (29) is going to look like a category mistake, on the understanding that category mistakes involve connecting something to a function which is not in the domain of the function. But this is absurd, which Magidor takes to mean that the functional analysis of language has broken down.

To avoid the problem, one may redefine numbers. Numbers, now, denote functions. These functions can be understood to be arguments of other functions, such as the function that 'prime' denotes. But this leads to yet another problem. Consider the following sentence:

(30) Two is interesting

The expression 'interesting' denotes a function. This function takes from its domain entities. But 'two', no longer, denotes an entity. Rather, 'two' denotes a function. Thus, (30) is a sentence that contains a mistake, again. But that is, itself, absurd. And that means the functional analysis of language has broken down, again. The problem, according to Magidor, generalises.

The answer is to allow for partial functions. Expressions now denote partial functions. So, a predicate like 'green' now denotes a partial function. A partial function, like the one 'green' denotes, takes an object and delivers a truth-value or delivers no truth-value. Another way of saying this is that the partial-function in question delivers a value from the following scheme (T, F, ⊥), which can be read as 'true', 'false', and 'undefined' (Cf. Martin 1975). Given so, knowing that a subject-term, *A*, denotes an entity and a predicate, *F*, denotes a function is not sufficient to conclude that the functional analysis of *A* is *F* breaks down. However, knowing that *A* is not in the domain of the function that *F* denotes is sufficient to conclude that *A* is *F* is a category mistake.

Magidor excepts this conclusion up to a point. But she retains three important claims:

(a) It is possible for a sentence to be semantically undefined and meaningful.
(b) There are other arguments that show that sentences that contain category mistakes are meaningful.
(c) Sentences that contain category mistakes are still true or false.

I will briefly react to the first claim and then proceed to consider some of the other arguments that she suggests show that sentences that contain category mistakes are meaningful.

First, then, I will assume that the sorts of sentences that Magidor considers are, if undefined, undefined in every possible world. Here, for example, are some of the sentences she considers:

(31) Two is green
(32) Relativity eats breakfast
(33) The toothbrush is pregnant

If it is correct to say that such sentences, if undefined, are necessarily undefined, then it is correct to say that these sentences are, of necessity, semantically undefined (for that is the kind of definability in question). But, if so, it is very difficult to see how a sentence that is *semantically* undefined in every possible world can be *literally* meaningful in the actual world. That is the kind of meaning Magidor has in mind. It is difficult to see how a sentence can have both properties: necessary semantic meaninglessness and actual literal meaningfulness.

Earlier we mentioned two Fregean ways of associating meaning with a sentence. The first was derived from Strawson: *all that matters is that we should know when a sentence could be true or false*. Strawson thinks that this holds even for undefined sentences such as those that are about the present Queen of France. But it is arguable that Strawson's account won't help Magidor much. For, *if necessarily undefined*, then there are no conditions that we know of in which such sentences *could be* true or false.

The second account mentioned was Sloman's: *all that matters is that we should know of a procedure for determining whether such sentences are true or false*. And Sloman, too, insists that sentences that are *undefinable* are meaningful. In fact, Sloman suggests that sentences that are *necessarily* undefinable are meaningful. So, for example, Sloman introduces us to an algorithm that allows a computer to divide one number, **m**, by another, **n**, resulting in a number **K** and a remainder, **r**:

> [T]he procedure is to multiply **n** first by 1, then by 2, then by S, etc. until a result is reached with is greater than **m**. The second last multiplier is then **k**, and the remainder **r** is **m-k.n**. A computer can be programmed to carry out instruction of the form 'divide **n** into **m**' in this way eventually printing out the numbers **k** and **r** and it will respond to the instruction no matter what numbers are mentioned in it (Sloman 1971, 9).

Sloman notes that it is quite permissible to enter 0 for **m** in the **m/n** equation:

> In particular, if it is instructed 'divide 0 into 66' it will set to work multiplying 0 first by 1, then by 2, and so on. But it will eventually have to be switched off, for otherwise it will go on forever looking for a number…or perhaps run out of tape or storage space (Sloman 1971, 9).

Building on this, Sloman argues that (a) there are sentences "whose senses fail to identify any individual or truth-value in any possible world: this is the case of necessary failure" (Sloman 1971, 4); (b) these sentences are meaningful. Further examples he gives are these:

(34) This table is twice as long as I hereby say it is

(35) The statement that says of itself that it is true, is false

These kinds of sentence, he contends, have no truth-value in any world. But, in line with the Fregean perspective, they have a *sense*. The sense is associated with the *procedure* and the procedure provides a way of determining whether such sentences are true or false, but that procedure fails due to the procedure never halting (as in the example above) or containing terms that necessarily cannot refer. Still, such sentences have a sense because they have a procedure for evaluating them.

This cannot be right. First, though the kind of sentence in question may be associated with a procedure for determining truth, such a sentence is not associated with a procedure for determining *its* truth. Second, if the sentences in question are *necessarily* undefined, then there are *no* procedures that such a sentence can be paired with that *could* determine *its* truth. Moreover, there is little reason to think a necessarily undefined sentence is paired with the correct procedure, at all. Indeed, talking of being paired with the *correct* procedure seems difficult to make sense of. Why should we say that a necessarily undefined sentence is *correctly* paired with a procedure for determining the relevant truth when there is no chance of that procedure determining *its* truth? I, therefore, don't think Sloman's procedure-based Fregean account of meaning can help Magidor much.

Conjunctions

Another argument that Magidor offers us is based on the capacity to join two meaningful sentences together to create a conjunction which is itself meaningful. Consider the following principle: *If P and Q are meaningful declarative sentences, then P and Q is a meaningful sentence*. From this, claims Magidor, it follows that sentences that contain category mistakes are meaningful. Her claim can be illustrated by drawing on a Rylean example.

Here are two meaningful sentences:

(36) I have a left hand and a right hand.
(37) I have a pair of hands.

Following a Rylean trajectory, though these sentences are meaningful, the following sentence is a category mistake:

(38) I have a left hand, a right hand, *and* I have a pair of hands.

Based on the principle Magidor has introduced, it follows that (38) both contains a category mistake *and* is meaningful. I will assume that Ryle is correct, that a sentence like (38) contains a category mistake. If so, everything turns on the principle cited. Magidor, herself, suggests that we have to accept that category mistakes are meaningful for the reason stated or give up the principle. That's a very stark choice. It's way *too* stark.

To begin with, the principle holds fast for a clearly defined set of sentences. The principle fails for a clearly identifiable set of sentences (category mistakes). Why can't one choose to keep the principle for the one set of cases in which it logically and empirically holds fast, but give it up for the cases in which it fails? Why should we be forced into holding that a principle must hold good any more expansively? The law of division breaks down when 0 is divided through some number, we don't give it up; Newton's laws don't work at the small scale or very very fast speeds, we don't give them up; Euclidean laws don't succeed when we turn our attention to spherical geometry, which is no reason to disregard them; the laws of inference fail when sentences containing category mistakes enter into arguments, we don't conclude that, therefore, we should give them up. Indeed, that such laws lead to bizarre conclusions when sentences that contain category mistakes are introduced into an argument is well-known. And, *it is one of the ways philosophers have identified category mistakes* and *one of the reasons why* philosophers have warned against them and the logical distortions they bring with them. Indeed, it is crucial to Ryle's understanding of the mind (Ryle, 1949).

Philosophers like Ryle have always argued that the logical relations associated with conjunction and disjunction rules fail where category mistakes are concerned. For example, consider the next sentence:

(39) I have a right hand glove or I have a left hand glove or I have a pair of gloves.

Each separate sentence is meaningful. And it is possible to put together a sentence like (39) by fiat. But In combination with the following conjunction:

(40) I don't have a right hand glove and I don't have a left hand glove

It follows that:

(41) I have a pair of gloves.

This is surely absurd. The absurdity doesn't mean I need to disavow any principles or laws of inference. Rather, I can just point out, as philosophers like Ryle did, that category mistakes violate the principles and laws of logic and logical inference. This they registered is apt to show that they tend to lead to absurdities. And that is why philosophers need to identify them and deny that they have a meaningful inferential role. As such, they may go undefined. This suggests that there are reasons to take sentences that contain category mistakes as meaningless in contexts in which inference matters, especially when it matters to our understanding of the world around us, as it does to philosophers.

Synonymy

Another argument that Magidor offers for thinking that sentences that contain category mistakes are meaningful is that one can take a sentence of, say, English that contains a category mistake and translate it into a completely different language, say, Japanese. So, for example, consider the following set of sentences:

(42) (42)is false
(42) (42) は偽である。

The latter translates the former into Japanese. Following Magidor, this means that this sentence is meaningful. Here are further examples:

(43) 四角い丸は木製の金属です。
(44) 0 を 9 で割った価値は 9 です。
(45) 彼はホニャララと言った。
(46) そしてかある。

These translate the following sentences into Japanese:

(47) Square circles are wooden metal.
(48) 0 divided into 9 is 9.
(49) He said blahblahblah.
(50) And or is.

According to Magidor's argument from synonymy, all these sentences must have meaning because all these sentences can be translated into another language (although she explicitly denies (49) has any meaning (Magidor, 2009, 567)). But that is a dubious claim given the strange set of sentences that we have. Furthermore, consider the following sentence:

(51) This sentence is either false or this sentence is undefined.

An argument can be run to show that if (51) takes *any* truth value, an absurdity will obtain– that is, so far as we hold that a sentence like (51) has one but no more of the following three values: true, false, or undefined (undefined = neither true nor false). Here is that argument: If (51) is true, then it is false or else not true and not false. Since neither disjunct is true, this is absurd. If (51) is false, then (51) is not false and not undefined, meaning it must be true. This is absurd. If (51) is undefined, then a disjunct of (51) is true, meaning that (51) is true. This is absurd (Cf. Goldstein 1992; Rieger 2001).

But, the sentence looks superficially meaningful and the sentence can be paraphrased in English and translated into Japanese. Here is the translation:

(52) この文章は偽か無定義です。

Following Magidor, this means (51) must actually be meaningful. That means Magidor is committed to the conclusion that some absurd sentences are meaningful. I don't want to rule this out, but *it is obvious* so much more needs to be said to clarify such a position, especially as Magidor's dialectic approach often involves (a) using a reduction to absurdity to rule out a proposition she finds objectionable, and (b) asking for further clarification and theory building from her opponents when there are clear alternatives to her arguments. I, therefore, conclude Magidor's argument is not sufficient to show that sentences that contain category mistakes are meaningful.

Beliefs and Dreams

Consider, now, the following sentence:

(53) Hanako believes that P
(54) Hanako dreamt that P

In each case, let P take *any* of the sentences (42)-(52). Magidor's claim seems to be that because there are circumstances in which it is true that Hanako believes P is true, then P is meaningful. This is false. Hanako's belief that P is true is not sufficient to show that P is meaningful. So, for example, if P is (51), Hanako believes that (51) is true. Hanako's belief is not sufficient to show that (51) is meaningful. For whatever attitude Hanako takes up with respect to (51), if the sentence takes any truth value or none, it is absurd, and this is not *clearly* and *easily* intelligible. First, then, there is an issue over whether (51) is meaningful or not regardless of how it looks or whatever anyone thinks about it. Second, if Hanako were aware of the true nature of the sentence in question, it is not certain she would think it was meaningful.

Again, surely dreaming that (51) is true is not going to help. In fact, it should be more obvious that dreaming some sentence is true is not sufficient for rendering that sentence meaningful. It's plausible enough to say that someone or other dreamt that some sentence or other is true. But how does it now follow that any such sentence is meaningful? One may dream that the sentence 'Square circles are polymeric-monomers' is true, indeed, one may dream that this is some kind of fantastic Nobel-winning scientific discovery, but it doesn't follow that the sentence is, *therefore*, meaningful; *it doesn't even follow that the dreamer finds the sentence meaningful, let alone, literally meaningful.*

To reiterate, I think that sentences that contain category mistakes are meaningful. I do not think that Magidor has said anywhere near enough to give us reason to believe this so far as the arguments I have examined are considered.

Conclusion

I have offered a definition of a category mistake. The definition has been defended against problems. The definition allows us to say when there is a category mistake. The definition also allows us to justify saying that a sentence contains a category mistake. I have also given reasons to think that such sentences are meaningful even if and just because necessarily false in the right way. However, I have rejected some of Magidor's prime reasons for thinking that sentences that contain category mistakes are meaningful. This is because her arguments lack sufficiency. There are many more things to say about the definition offered and the writing of others (past and present) on category mistakes. I leave this to another time.

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