Classical Conceptual Analysis

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Philosophy involves the exercise of one's rational capacities in seeking correct answers to the most fundamental questions there are. That capacity includes at least two components: One is the ability to grasp various logical relationships that may exist between premises and conclusions, and another is the ability to engage in *analysis*. But what is analysis? In one sense, analysis is an *activity*: For instance, when Socrates asks a question like "What is justice?," he wants to know more clearly what is *meant* by the term 'justice', which is just a desire to know what the nature of justice really is. The activity of analysis seeks to answer such Socratic questions. Now, the *product* of such an activity will be a proposition that says what justice is, or what piety is, or what knowledge is, etc. and such a proposition can also be said to give the *meaning* of the terms 'justice', 'piety', 'knowledge', etc. Such a proposition is also called an analysis. So there are at least two different senses of the term 'analysis': One sense refers to an activity, and another refers to the product of that activity.

But why does analysis matter to doing philosophy? Consider the following argument:

(P1) Killing a person is morally wrong.
(P2) A fetus is a person.
(P3) Abortion is the act of killing a fetus.

(C) Abortion is morally wrong.

The argument is valid: The conclusion is guaranteed to be true if the premises are all true. So whether the argument is sound or not is a matter of the truth of the premises. But what is meant by 'person', 'killing', and 'morally wrong' here? What an analysis of the meanings of those

terms would do is provide some correct account of what a person really *is*, what killing *is*, and what it is for something to be morally wrong. For instance, what will decide premise (P2)'s truth or falsity will be the rather significant matter of what characteristics all persons have in virtue of *being* persons, and whether fetuses have those characteristics or not. In other words, a correct analysis of what is meant by 'person' will be essential to whether the argument is sound or unsound. It is in this way that analysis is an essential component of philosophy itself.

My topic in this short essay is conceptual analysis in its classical or traditional sense, and my primary goal here is to give as clear a statement as possible of the nature of classical analysis. I occupy myself with that task in §1. Although my main focus here is exegetical, it should be pointed out that the classical notion of analysis has been exposed to a great deal of criticism over the years, and a few of the more common objections to the classical notion of analysis are considered in §2. Some alternatives to the classical view of analyses are noted in §3.

1. *Classical analysis*

I begin with the question of the nature of those propositions that themselves *are* analyses. According to the picture of analysis under consideration here, an analysis is an analysis of a *concept*: Just as a proposition is what is meant by a complete declarative sentence, a concept is what is meant by, or what is expressed by linguistic items such as predicates, adjectives, and the like. For instance, the concept of *being green* is what is meant by the predicate 'is green', and the concept of *being a star* is what is meant the predicate 'is a star'. What an analysis is *of* is a

concept, and an analysis is a proposition that gives the meaning of those expressions of the concept being analyzed.[1]

A *classical conceptual analysis*[2] will do this in the following way. Take the concept of *being a square*. A classical analysis of that concept will be in the form of a set of necessary and jointly sufficient conditions that will, among other things, specify what it is *to be* a square. Such an analysis will include a list of *necessary conditions*, each of which is a condition that has to be satisfied in order for something to be a square. The conjunction of that list of necessary conditions is itself a *sufficient condition* for being a square, in that if a thing satisfies all of those conditions, then that thing must be a square. Put more formally,

> A necessary condition for being an *F* is a condition that something must satisfy in order for it to be an *F*.
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> A sufficient condition for being an *F* is a condition such that if something satisfies that condition, then it must be an *F*.

[1] For the purposes of elucidation of the nature of classical conceptual analysis, this is all that needs to be said concerning the question of what a concept itself is. On deeper investigation of the issue, there are of course some competing views on the subject: On one view, concepts are identical to the words or phrases used to express them; on another, they are a sort of idea or mental category that one has in one's head; on still another view, they are abstract entities. There are other views as well. While I take no stand on this issue here, it *does* seem as if the right view of the nature of concepts themselves will have bearing on whether *every* concept has a classical conceptual analysis. To consider one kind of example, suppose that concepts really are identical to a sort of mental category by which we sort things as being in that category or not, and suppose further that concepts construed that way can include categories of things that only have *typical features*, rather than features describable in terms of necessary conditions (to be discussed shortly). If this is what concepts are, then not every concept will have a classical analysis, since analyses in terms of typical features are not classical analyses.

[2] Some would call such a proposition a *definition*. However, one might use a more refined term and call them *classical definitions*, since there seem to be many sorts of definitions (partial definitions, ostensive definitions, procedural definitions, etc.). This alternate terminology is agreeable enough, but I will use the term *classical analysis* to speak of such propositions.

> Necessary and jointly sufficient conditions for being an *F* are a set of necessary conditions such that satisfying all of them is sufficient for being an *F*.

For the concept of *being a square*, the following serves as a correct analysis: A square is a 4-sided closed plane figure with sides all the same length, and with neighboring sides meeting at right angles. This might be put more formally as follows:

> *x* is a square if and only if: (1) *x* is 4-sided,
> (2) *x* is a closed plane figure,
> (3) *x* has sides that are all the same length, and
> (4) *x*'s neighboring sides meet at right angles.

Each of conditions (1)-(4) are necessary conditions for being a square, and the conjunction of all of them counts as a sufficient condition for being a square. Moreover, being a square is itself a sufficient condition for satisfying each of conditions (1)-(4).[3]

I should add that there are several other conditions[4] that a proposition must meet in order to *count* as a classical analysis. First, an analysis cannot be circular: The concept being

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[3] Another correct analysis for the concept of *being a square* is:

> *x* is a square if and only if: (1) *x* is 4-sided, and
> (2) *x* is a regular figure.

This suggests that there may be *many* correct analyses for a given concept, and no one of them is *the* analysis of that concept. Is this a problem for the philosophical view that every complex concept has a classical analyses? One way it would be a problem is if one held that concepts are literally *composed* (as a whole is composed of its proper parts) only of those simpler concepts that appear in the necessary conditions given in an analysis of that concept. In that case, it would seem impossible for the concept of *being a square* to have *being 4-sided* and *being a regular figure* as its only proper parts and also have *being 4-sided*, *being a closed plane figure*, *having sides all the same length*, and *having sides that meet at right angles* as its only proper parts. But there is little reason for thinking that this is the only sort of internal structure that concepts can have.

[4] See also Ackerman 1986, 1992, 1995.

analyzed cannot appear in the necessary conditions put forth as an analysis of that concept. The concept of *being a square* cannot be analyzed in terms of the concept of *being a square*, for instance. Second, an analysis of a given concept cannot be in terms of concepts that are more complex than the concept being analyzed. While it is true that the notion of conceptual complexity is a bit murky, an example should make the condition clearer: The concept of *being a square* can get analyzed in terms of *being 4-sided*, *being a closed plane figure*, etc., but the concept of *being a 4-sided, closed plane figure with sides all the same length and having sides meeting a right angles* cannot be analyzed in terms of the concept of *being a square*. This is in keeping with the idea is that analyses give at least some of the "components" or "constituents" of the concept being analyzed.[5]

One other point needs to be emphasized here. Analyses are put forth as necessary truths: In other words, the analysis given above of the concept of *being a square* does not just claim that squares are 4-sided, closed plane figures, with sides all the same length, and with neighboring sides meeting at right angles, but that squares *must* have those characteristics. So for condition (1), for instance, that necessary condition is not just the claim that squares have four sides, but the stronger claim that it *must* be that squares have four sides. In other words, it simply *cannot be* that there is a square that fails to have four sides.

Counterexamples and testing candidate analyses. But what is it that makes a given analysis a *correct* analysis, and how does one figure this out? Suppose that instead of the

[5] There are at least two senses of 'constituent' that could be in play here. To say that the concept of *being an F* is a constituent of the concept of *being a G* might be to say that the concept of *being an F* is literally part of the concept of *being a G*. Such *literal* constituency is distinct from what one might call *logical* constituency: On this other sense of 'constituent', *being an F* is a constituent of *being a G* if something's being a *G* logically entails its being an *F*, and nothing more.

analysis given above, one instead thought that the concept of *being a square* has the following analysis:

> *x* is a square if and only if: (1) *x* is 4-sided,
> (2) *x* is a closed plane figure, and
> (3) *x* has sides that are all the same length.

For this *candidate analysis*, which one might consider as part of one's investigation into the concept of *being a square*, the claim is that conditions (1)-(3) are each necessary conditions for being a square, and satisfying all of them would be sufficient for being a square. In other words, part of what is being claimed here is that it must be that everything that is a 4-sided, closed plane figure with sides all the same length is a square. But this would be a false claim if there could be something that has those three characteristics (i.e., meets those three necessary conditions) yet is *not* a square. And indeed there could: A rhombus is a four-sided, closed plane figure with sides all the same length, and any rhombus without neighboring sides meeting at right angles would count as a *counterexample* to the candidate analysis given above. This kind of counterexample shows the candidate analysis to have a certain kind of flaw: It is *too broad*, since it includes things as squares that are not squares, and any candidate analysis that has counterexamples to it is not a correct analysis.

There is another sort of counterexample of note, and that is a counterexample that shows an analysis to be *too narrow*. Suppose that the following candidate analysis is under consideration:

x is a square if and only if: (1) *x* is 4-sided,
(2) *x* is a closed plane figure,
(3) *x* has sides that are all the same length,
(4) *x*'s neighboring sides meet at right angles, and
(5) *x* is red.

There are no counterexamples to this analysis of the previous sort—that is, it is impossible for there to be anything that satisfies conditions (1)-(5) yet not be a square. But there is another sort of counterexample to consider here, namely something that *is* a square yet fails to satisfy all of conditions (1)-(5). Supposing for a moment that squares are the sorts of things that can be colored at all, a blue square is indeed a square, yet fails to satisfy condition (5). Since the candidate analysis under consideration leaves out some things that are squares, this is enough to show that the analysis is too narrow.

For other concepts, the classical view of analysis holds that one can follow the very same sort of strategy of offering a candidate analysis, testing it by means of seeking counterexamples, and revising that candidate analysis until it is free of counterexamples. For instance, the candidate analysis *that a bachelor is an unmarried male* seems to be too broad, since any dog counts as a counterexample. The candidate analysis *that a bachelor is an unmarried male over age 90* seems too narrow, as it seems at least possible for there to be a 92-year-old bachelor. However difficult it might be to actually discover a correct analysis for the concept of *being a bachelor* (as well as such more philosophically interesting concepts as *being a person*, *being morally good*, *being conscious*, etc.), the classical view holds that there is at least one such correct analysis for that concept.[6]

[6] So long as that concept is a *complex* concept, that is. For if a concept is analyzed in terms of some other concepts, and those other concepts themselves have analyses in terms of still other concepts, it would seem that there has to be some collection of *primitive* concepts that themselves have no analyses. It is beyond the scope of this paper to delve into the nature of primitive concepts further, but suffice it to say that views of concepts friendly to classical

2. *Objections to the classical view of analysis*

The classical view faces a number of important objections, but it is not my aim in this essay to defend the classical view in any kind of comprehensive way. So I hold my discussion here to just two difficulties: *Plato's problem* and *the problem of typicality effects*.[7] Again, my primary aim here is exegetical—a complete discussion of even these two objections would require considerably more space.

Plato's problem is this: Given that with millennia of efforts to find classical analyses for concepts such as the concept of *being a person*, the concept of *being a mind*, the concept of *being a case of knowledge*, the concept of *being morally good*, the concept of *being beautiful*, and so forth, one would think that some correct classical analyses for these concepts would have been discovered by now if the classical view were true. But since few such analyses have been uncovered outside of the realm of logic and mathematics, it is tempting to infer that the classical view cannot be correct for *all* complex concepts. The reason the objection is termed *Plato's problem* is that in Plato's dialogues, often enough Socrates seeks an answer to some question such as "What is piety?" or "What is justice?" and never seems to receive a complete answer. As it is evident that Socrates is after something much like a classical analysis as described above,

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analysis would seem committed to the thesis that there *are* such primitive concepts, whatever their nature would be. For otherwise such views would have to allow for there to be circular analyses, or allow for the process of analyzing concepts in terms of simpler concepts to go on *ad infinitum*, or allow for there to be analyses in terms of concepts that are *more* complex.

[7] The names of these two objections are from Laurence and Margolis 1999, and see the same work for a longer list of objections and replies as well.

the ongoing failure to uncover complete answers to "What is *F*?"-type questions might be taken as evidence that there are no such classical analyses to be discovered at all.

The most immediate response to the objection is straightforward enough: The lack of universally (or even widely) agreed-upon correct classical analyses for a wide range of philosophically significant concepts hardly *shows* that there are some complex concepts that cannot be analyzed classically. But this will hardly satisfy the critics of classical analysis, since it is not as if philosophers have been halfhearted in their efforts in seeking classical analyses—after all, philosophers have sought such analyses for over two thousand years, and one might have expected a much greater rate of success if the classical view were true for all complex concepts. The objection might not be intended to give a deductive *proof* that the classical view false, after all, but merely to point out that there seems to be overwhelming inductive evidence that the classical view is mistaken.

Perhaps a better reply to Plato's problem is a version of a *tu quoque* argument: Plato's problem is really a general problem for those who seek *any* sort of analysis, whether one seeks analyses along classical lines or not. The success rate for other views of analysis seems to be about the same as that for classical analysis, where success is measured here in terms of *widespread* agreement that a candidate analysis of a given concept is really a correct analysis. So the reply is that one cannot reject the classical view based on the lack of universal agreement unless one is prepared to reject all views of analysis where there is no universal agreement. As this includes the competitors to the classical view, then those views are no better off.

Another objection raised against the classical view is the problem of typicality effects. The problem arises from experimental results concerning how people sort things into various categories. The evidence showed that people sort things into various categories at different

rates—for instance, people tend to sort sparrows into the *bird* category more quickly than they do eagles, and they tend to sort eagles into the *bird* category more quickly than they do ostriches.[8] It is as if people sort "more typical" birds into the *bird* category more quickly than "less typical" birds. How is this experimental evidence a problem for the classical view of conceptual analysis? The critics charge that these differences in sorting behavior shows something about the nature of concepts, namely that if they are to be analyzed at all, they should be analyzed in terms of "typical" features rather than in terms of necessary conditions. For when someone sorts a sparrow into the *bird* category, the critics say, this is a case of applying the concept of *being a bird* to that individual sparrow. But the critics claim that if concepts really *did* have classical analyses, then one would expect everyone who understands a given concept to apply that concept in exactly the same way, and at exactly the same rate. But since such behavior is not observed at all, the critics infer that it cannot be that the classical view of conceptual analysis applies to every concept.

There are a number of responses to consider with respect to this objection, but perhaps the strongest is this: Quite simply, the experimental evidence concerning our sorting behavior has little or no bearing on the question of whether concepts have classical analyses. For there is a difference between how someone *figures out* whether to apply a concept to a particular thing, or how fast one does it, and whether that concept *really does* apply to that particular thing. Sparrows, eagles, and ostriches are all equally birds, even if we might recognize sparrows as birds a bit more quickly than we recognize ostriches as birds. What it is *to be* a bird is one thing, while what set of characteristics we look for in *identifying* something as a bird is another. But given this distinction, one can now see where the objection goes astray: An analysis of the

[8] The evidence mentioned here is reviewed in Rey 1983 and Laurence and Margolis 1999.

concept of *being a bird* gives the conditions necessary for *being* a bird, not the conditions under which someone identifies something as a bird or not. The objection having to do with typicality effects takes the differences in sorting things into a given category and makes an inference to an explanation. Part of the best explanation for the categorization differences, the critics say, is that the classical view of conceptual analysis is false. But since that inference to an explanation falsely presumes that a conceptual analysis gives the conditions under which an agent identifies something as an instance[9] of that concept, the objection fails.[10]

3. *Alternative forms of analysis*

As indicated earlier, my purpose here is not to give a full-blown defense of the classical view of conceptual analysis. But even so, one might wonder what view of analysis might be substituted for the classical view should it turn out not to hold for all concepts. For one might hold that the classical view holds for some concepts (like the concept of *being a square*, for

[9] An instance of a concept is something to which that concept applies: For instance, an individual sparrow is an instance of the concept of *being a sparrow*. An individual sparrow is also an instance of some other concepts, like the concepts of *being a bird* and *being an animal*.

[10] This reply to the problem of typicality effects is essentially that of Rey 1983. It should be noted that even though Rey draws the distinction given above, there are even more distinctions to consider here than at first sight. For the concept of *being a bird*, there is the distinction (from above) between what one might call the *satisfaction conditions* (or what it is to *be* a bird) and what one might call the *identification conditions* (or what one uses in identifying something as a bird). But other sets of conditions could well be relevant to explaining the differences in categorization: For instance, there is a difference between the satisfaction conditions for *being a bird* and what one *believes* the satisfaction conditions for *being a bird* to be. There is also a difference between those conditions one typically *uses* in sorting things into the *bird* category and those conditions one *believes* could be used for successful sorting of things into the *bird* category. The point is that classical analyses give the satisfaction conditions for a concept, and the experimental evidence pointed to by the critics would seem to be more readily explained in terms of these other sets of conditions. As such, there is no reason to give up the classical view on the basis of that evidence.

instance), but not for others (like the concept of *being a bird*). But how might those other concepts be analyzed if not in terms of necessary and jointly sufficient conditions?

One option would be to allow for analyses that include lists of necessary conditions, but that the conjunction of those conditions fail to constitute a sufficient condition. For instance, the proposition *that a bachelor is an unmarried male* seems to specify at least some of the conditions necessary for being a bachelor, even if it fails to specify everything necessary for being a bachelor. Such *partial analyses* would preserve some features of the classical view and still provide a great deal of information concerning the logical relationships between the concept being analyzed and other concepts. Partial analyses could well be decisive in evaluating arguments. For example, consider once again the argument against abortion mentioned at the outset of this paper: If the proposition *that a person is a rational, self-conscious being* is a correct partial analysis of the concept of *being a person*, then premise (P2) of the argument is false if fetuses fail to be self-conscious.

Another sort of analysis is inspired by the experimental evidence (mentioned previously) having to do with sorting things into various categories by means of *typical features*. One might analyze the concept of *being a bird*, say, not in terms of necessary and sufficient conditions, but in terms of those features common to birds. Such an analysis might be expressed as "A bird is something (typically) with wings, beak, feathers, and claws and is capable of flight." Some types of flying dinosaurs might fit this description as well, but this is beside the point: An analysis of *being a bird* in terms of typical features does not aim to give an analysis completely free of any counterexamples—such an analysis is only intended to describe what birds are typically like.

Concepts might also be analyzed in terms of the *functions* had by their instances. The concept of *being a carburetor* might be analyzed in terms of the purpose of such devices. This might be done in terms of the role a carburetor plays in the overall mechanical system of which it is a part, and this role might be described in terms of a carburetor's inputs, outputs, and relations to other states of that system. As another example, such a functional analysis might be attempted for concepts having to do with mental states (like the concept of *being in pain*), and this is the basic idea behind some versions of functionalism in philosophy of mind.

Still another possibility would be to analyze concepts in terms of how instances of that concept *come to be*. For instance, one might analyze the concept of *being an artwork* not in terms of necessary conditions, typical features, or in terms of what art is for, but instead in terms of the procedure one uses in *producing* an artwork. On this sort of analysis, the question "What is art?" would just be answered in terms of how art is made, and nothing more.

Finally, one might analyze a concept in terms of the *composition* of instances of that concept. For instance, "Granite is an igneous rock consisting mostly of quartz, microcline, and mica" seems to express some sort of analysis of the concept of *being granite*, even though it is just in terms of the physical composition of granite and not in terms of how granite comes to be, what it is for, etc.[11]

To sum up, an analysis of a concept is a proposition that gives the meaning of all expressions of that concept. For a classical conceptual analysis, this will be done in terms of a set of necessary and jointly sufficient conditions for something to be an instance of that concept. According to the classical view of the *activity* of seeking analyses, one determines whether a

[11] On further reflection, this example might well be a *classical* analysis at heart, since it looks like being an igneous rock is necessary for being granite, as well as being composed mostly of quartz, microcline, and mica. However, this was just meant as an illustration: One can surely imagine other cases where a concept seems to be analyzed in terms of the composition of its instances yet that analysis is not a classical analysis.

candidate analysis is correct by seeking counterexamples to that analysis. If there are no counterexamples, then that analysis is a correct analysis. Other sorts of propositions might count as analyses too, such as analyses in terms of typical features, functional analyses, procedural analyses, and analyses in terms of physical constitution. At the very least, analysis is essential to the practice of philosophy as a whole: For so long as there are arguments that stand or fall depending on the meanings of the terms employed in them, what will decide such matters will involve correct analyses of those terms.

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