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KANTIAN ANALYTICITY AND QUINE'S FIRST DOGMA OF EMPIRICISM

Miroslav Kneller Losonsky

I. Introduction

In his book Kant and the Foundation of Analytic Philosophy,¹ Robert Hanna offers a fine-tuned reconstruction of Immanuel Kant's version of the analytic/synthetic distinction. He then argues that W.V.O. Quine's attacks on the analytic/synthetic distinction in *Two Dogmas of Empiricism* fail to address Kant's distinction. According to Hanna, Quine's critique is only applicable to formulations of the analytic/synthetic distinction that rely upon reducibility to logical truths by substitution of synonyms. Hanna claims that since "[t]he total class of Kantian analytic propositions is not captured by determining the set of propositions that are ... transformable into logical truths by replacing synonyms with synonyms... Quine's attack on the Frege-Carnap theory, even if completely sound, will obviously fail to undermine Kant's theory."² In this paper, I argue that this claim is false. Although it is true that Kant's formulation of the analytic/synthetic distinction does not, strictly speaking, rely on synonymy relations between words, I will argue

¹ Hanna, Robert. Kant and the Foundations of Analytic Philosophy. New York: Oxford UP, 200.

² Hanna, 175

that Quine's attacks, *if sound*, still undermine Kant's formulation of the distinction.³

To do this, I will begin with an intuitive account of the analytic/synthetic distinction. I will then outline Hanna's account of Kant's analytic/synthetic distinction. After a brief explanation of the relevant parts of *Two Dogmas*, I will then argue that Kantian analyticity still needs to address Quine's claim that any definition of analyticity is circular. Thus, *if* Quine's attacks are successful, Kant's account of analytic/synthetic distinction is untenable.

Unless noted otherwise, I do not make any distinction between Hanna's reconstruction of Kant's distinction and Kant's actual distinction. For the sake of this paper, I assume that Hanna offers an accurate reconstruction of Kant's actual distinction.

II. The Intuitive Distinction

The basic intuition underlying the analytic/synthetic distinction is that there seems to be a divide between judgments whose truth-value depends solely on the meanings of the words involved (along with some syntactical rules) and judgments whose truth-value depend on both meaning and *fact*. For example, a sentence such as

(ABU): All bachelors are unmarried adult males

³ I will not take a position with respect to the success of Quine's attacks. I will only argue that, *if they are sound*, then they undermine Kant's formulation of the distinction. Thus, the success of my argument is logically independent of the soundness of Quine's critique.

is considered analytic because its truth-value is said to depend solely on the meanings of the words involved. In contrast, a sentence such as

(ASW): All swans are white

is considered synthetic because the truth-value of (ASW) is dependent upon some fact that is independent of the meanings of the words involved. The truth-value of (ASW) depends on whether or not all swans are actually white.

It is important to note that all accounts of the analytic/synthetic distinction agree that the denial of an analytic statement must yield a contradiction. Thus, for example, $\sim(\text{ABU})$ is said to be contradictory. Obviously, though, $\sim(\text{ABU})$ is not formally or explicitly contradictory. Thus, any account of the analytic/synthetic distinction needs to explain how $\sim(\text{ABU})$ yields a contradiction. It is in the derivation of a contradiction from analytic statements such as (ABU) that Hanna thinks Kant's account diverges in an important respect from the account offered by Quine in *Two Dogmas of Empiricism*.

III. Kantian Analyticity

A standard gloss of Kantian analyticity is captured by a paragraph of *Two Dogmas* in which Quine mentions that Kant's formulation "limits itself to statements of the subject-predicate form, and it appeals to a notion of containment which is left at a metaphorical level."⁴ But, as Hanna shows, Kant's notion of conceptual containment is actually not only quite technical but also part of a more

⁴ Quine, W.V.O. "Two Dogmas of Empiricism." The Philosophical Review 60 (1951): 21.

sophisticated analytic/synthetic distinction that does *not* limit itself to statements in subject-predicate form.

According to Hanna's reconstruction of Kant's analytic/synthetic distinction, there are three and only three independently sufficient criteria for a proposition's being analytic. A proposition is analytic if and only if it is necessary either because,

(SC1) its denial deductively entails a contradiction of the form ' $Px \ \& \ \sim Px$ '

or

(SC2) its denial leads to a microstructural contradiction (m-contradiction) between concepts

or

(SC3) its denial leads to a comprehensional contradiction (c-contradiction) between concepts⁵

(SC1)

(SC1) captures what Quine calls type-one analytic propositions or general logical truths. For example, the proposition,

(NUM): All unmarried males are unmarried males

is analytic according to (SC1) because its denial is a formal contradiction. The proposition

\sim (NUM): Some unmarried male is not an unmarried male

is in the form of $(Px \ \& \ \sim Px)$, i.e., a formal contradiction. (SC1) captures the analyticity of all and only those truths of

⁵ Hanna, 153

basic logic, i.e., propositions whose denial is either a formal contradiction *or* deductively entails a formal contradiction.⁶

Clearly, though, (SC1) does not capture all truths that we label as analytic. As we have seen, the denial of a proposition such as (ABU) does not immediately yield a formal contradiction. To see why (ABU) is analytic we need to turn to (SC2) and Kant's notion of conceptual containment.

(SC2)

According to Kant, a concept is made-up of both (a) an intension and (b) a comprehension. A concept's intension is an ordered set of descriptive features that "refer to [objects] mediately by means of a characteristic that several things have in common."⁷ These descriptive features are themselves concepts.⁸ Thus, a concept is either a basic descriptive unit itself or it can be further analyzed

⁶ It could be objected that a categorical contradiction in the form of $(Px \ \& \ \sim Px)$ only captures contradictions in subject-predicate form. But, this is why (SC1) states that the denial only needs to deductively entail a proposition of the form $(Px \ \& \ \sim Px)$. A proposition whose denial yields a contradiction of the form $(P \ \& \ \sim P)$ deductively entails $(Px \ \& \ \sim Px)$ because "any proposition whatsoever deductively follows from a formal contradiction." (Hanna, 147) Thus, (SC1) applies to any proposition whose denial is a contradiction, not just those in subject predicate form. Although this move is probably too charitable to Kant's formulation of the analytic/synthetic distinction, this worry is beyond the scope of this paper.

⁷ Kant, Immanuel. *Critique of Pure Reason*. Trans. Paul Guyer and Allen Wood. New York: Cambridge UP, 1998: 299.

⁸ Hanna uses the terms 'partial concepts', 'characteristics', 'mark', and 'description' interchangeably. For the sake of simplicity, I will only use the term 'partial concepts' when referring to those concepts contained-*in* another concept.

into partial concepts. The partial concepts that make up a concept's intension are contained-*in* that concept. (For example, UNMARRIED, ADULT, and MALE are all contained-*in* BACHELOR.⁹)

On the other hand, the *comprehension* of a concept is both (i.) the set of all concepts that are related to it by "species inclusion"¹⁰ (e.g., BROWN-HAIRED-BACHELOR is part of the comprehension of BACHELOR) and (ii.) the set of all actual and possible things that satisfy the concept's intension. Kant calls (i.) the "notional comprehension" and (ii.) the "objectual comprehension".¹¹ Every member of a concept's comprehension is contained-*under* that concept. For example, both particular bachelors (e.g., myself) and the concepts of particular species of bachelors (e.g., BROWN-HAIRED-BACHELOR) are contained-*under* BACHELOR. Since Hanna only focuses on (ii.)—the objectual comprehension—I will do the same throughout the rest of this paper.¹²

A concept's microstructure is its internal structure of horizontally and vertically related partial concepts. Concepts are vertically related if one concept is contained-*under* another concept, e.g., CAT and ANIMAL are vertically related. Concepts are horizontally related if their objectual comprehensions are partially overlapping, e.g., RED and APPLE. A concept's microstructure makes up its

⁹ I use the small capital letters to refer to the concept expressed by the word when used. For example, BACHELOR = the concept expressed when the word 'bachelor' is used. (This is Hanna's notation.)

¹⁰ Hanna, 131

¹¹ Hanna, 130

¹² "For simplicity's sake I will focus mainly on the part of the comprehension of a concept that is made up solely of objects." (Hanna, 137-137)

“conceptual essence.”¹³ In other words, the “constituent characteristics of a conceptual microstructure are *necessary* parts of that concept.”¹⁴ Thus, whenever a concept is expressed, the partial concepts contained in its microstructure are also, *necessarily*, expressed.¹⁵

Now, an *m-contradiction* occurs when a concept is predicated of some other concept whose microstructure contains-*in* it the negation of that concept as partial concept. For example, take the negation of the following m-analytic proposition (BU):¹⁶

~(BU) Some bachelors are not unmarried.

Now, we can “decompose” BACHELOR as follows¹⁷:

BACHELOR = <ADULT + UNMARRIED + MALE>

We can then represent the decomposition of the denial of (BU) as:

[(Some x) (BACHELOR x = < MALE x + ADULT x + UNMARRIED x > pred non-UNMARRIED x)]¹⁸

¹³ Hanna, 131

¹⁴ Hanna, 131

¹⁵ Words express concepts. For example, ‘bachelor’, when used, expresses BACHELOR.

¹⁶ An m-analytic proposition is a proposition that is analytic in virtue of (SC2).

¹⁷ For Kant, “...the cognitive operation of decomposition...consists in systematically revealing a conceptual microstructure—in breaking down the essence of a concept into at least some (and in the ideal limiting cases, all) of its ordered constituent analytic characteristics” (Hanna, 134). Also, see (CPR A7/B11).

¹⁸ For more on this sort of notation, see Kant and the Foundation of Analytic Philosophy, 132-135.

For Hanna, then, $\sim(\text{BU})$ is "...formally self-contradictory at the level of conceptual microstructure, by virtue of including something of the form C, non-C."¹⁹ What distinguishes this from (SC1) is that (SC2) analyticity only requires a contradiction at the level of conceptual microstructure rather than in explicit logical form. Hanna calls a purely conceptual contradiction of this sort an m-contradiction. Any proposition whose negation results in an m-contradiction is analytic by (SC2).

It is important to note that anything analytic by (SC1) is also analytic by (SC2). That is, all logical truths also involve an m-contradiction. But not everything that is analytic by (SC2) is analytic by (SC1), such as (ABU) or (BU). In this way, "Kant in fact brings (at least all classical) logical truths under his broader conception of analytic truth according to which a judgments is analytic if and only if it is necessarily true by virtue of intrinsic conceptual interconnections alone."²⁰

(SC3)

Take the following proposition:

(TT): Triangulars are trilaterals²¹

(In other words, "[a]ll three-angled closed rectilinear plane figures are three-sided closed rectilinear plane figures"²²)

¹⁹ (Hanna, 151) Throughout this paper, I use 'non' and 'not' interchangeably. Although it is not relevant to the argument in this paper, Kant does make a distinction between 'non' and 'not'.

²⁰ Hanna, 149

²¹ Hanna, 138

²² Hanna, 138-39

According to Kant, this proposition is analytic.²³ But, obviously the proposition does not satisfy (SC1). Furthermore, the proposition does not satisfy (SC2) because TRIANGULAR and TRILATERAL do not have the same conceptual microstructure; TRIANGULAR contains THREE-ANGLED CLOSED RECTILINEAR PLANE FIGURE and TRILATERAL contains THREE-SIDED CLOSED RECTILINEAR PLANE FIGURE.²⁴ Since THREE-SIDED is not contained in TRIANGULAR, (TT) cannot be analytic by (SC2).

However, despite differences in microstructure, TRIANGULAR and TRILATERAL have the same objectual comprehension. They are comprehensionally identical concepts.²⁵ That is, every possible triangular is also a trilateral and every possible trilateral is also a triangular.

According to Kant, whenever the predicate of a judgment is negated, every member of the predicate concept's comprehension is "logically subtracted from the comprehension of the subject concept."²⁶ A comprehensional contradiction (c-contradiction) occurs when the predicate concept of a proposition subtracts *every*

²³ It might be thought that this would be an example of a synthetic a priori truth. But, nevertheless, for Kant, (TT) is "...definitely analytic...the concepts are essentially linked by virtue of their conceptual content alone. It is important to remember that, although Kant holds that 'mathematical judgements without exception, are synthetic' (CPR B14), nevertheless 'a few principles presupposed by the geometrician are actually analytic' because they are 'links in the chain of method' (CPR B16-17)...analytic definitions of geometric concepts would be included as well." (Hanna 139)

²⁴ Hanna, 139

²⁵ All m-identical concepts (i.e., all concepts that have the exact same microstructure; e.g., DOG and CANINE) are also comprehensionally identical (c-identical). But, not all c-identical concepts are m-identical, e.g., TRIANGULAR and TRILATERAL.

²⁶ Hanna, 152

object falling *under* the subject concept, i.e., every member of its comprehension. Thus, (TT) is analytic because its denial,

\sim (TT): Some triangulars are non-trilaterals,²⁷

contains a “mutual c-contradiction between the concepts THREE-ANGLED CLOSED RECTILINEAR PLANE FIGURE and NON-THREE-SIDED CLOSED RECTILINEAR PLANE FIGURE.” That is to say that predicating NON-THREE-SIDED CLOSED RECTILINEAR PLANE FIGURE of THREE-ANGLED CLOSED RECTILINEAR PLANE FIGURE subtracts *every* object falling *under* the subject concept TRIANGULAR. (SC3) captures all and only those propositions whose denial leads to c-contradiction.

Having outlined all three of the sufficient criteria for Hanna’s formulation of Kantian analyticity, I will now argue, for each criterion individually, that Quine’s central attacks in *Two Dogmas* do not fail, pace Hanna, to properly address Kant’s account of analyticity. I will begin with a brief explanation of the relevant argument in Quine’s *Two Dogmas*.

IV. Quine and Analyticity

In *Two Dogmas* Quine defines two different types of analyticity. The first type (type- *one* analyticity) applies to those statements that Quine calls logically true; statements that remain true under any reinterpretation of their “components other than the logical particles.”²⁸ Thus, for example, the statement

²⁷Hanna, 153

²⁸Quine, 23

(NUM) All unmarried males are unmarried males

is true under any interpretation of male and married. (Assuming there is a “prior inventory of logical particles” such as ‘un-’, ‘no’, ‘if’, ‘then’, etc.²⁹)

In *Two Dogmas of Empiricism*, though, Quine is concerned with what he calls type-*two* analyticity. What characterizes type-*two* analytic statements is that they “can be turned into a logical truth[s] by putting synonyms for synonyms.”³⁰ So, for example, we can change (ABU) into a logical truth by substituting ‘unmarried adult males’ for ‘bachelors’:

(ABU*) All unmarried adult males are unmarried adult males.

Since (ABU*) is a logical truth, (ABU) is analytic.

On this account, then, a statement is analytic if and only if it either a logical truth or it can be reduced to a logical truth by substituting synonyms for synonyms. Now, the important question for Quine is, “What is the criterion for synonymy?” What makes ‘bachelor’ synonymous with ‘unmarried man’? One of the possible criteria for synonymy is interchangeability *salva veritate*. This account says that two linguistic forms are synonymous just in case they are interchangeable in all contexts without a change in truth-value.³¹

²⁹ Ibid.

³⁰ Ibid.

³¹ Quine mentions that he is not concerned with complete synonymy in terms of poetic quality or psychological associations. Also, it is obvious that not all substitutions of ‘unmarried man’ for ‘bachelor’ preserve truth-value. (For example, “‘Bachelor’ has eight letters.”) Nevertheless, Quine is grants a notion of wordhood such that, for

In a purely *extensional* language, this criterion would not be sufficient to explain analyticity. For example, in a purely extensional language, ‘creatures with a heart’ and ‘creatures with a kidney’ would be interchangeable *salva veritate*. But clearly the proposition

(CHW): All and only creatures with hearts are creatures with kidneys

is not analytic. “In an extensional language, therefore, interchangeability *salva veritate* is no assurance of cognitive synonymy of the desired type.”³² What we need is assurance that the extensional agreement is in virtue of “meanings rather than merely...accidental matters of fact...”³³

To capture the required notion of synonymy for explaining analyticity we need a language that contains the intensional notion of necessity or some other “particle to the same effect.”³⁴ For example, in an intensional language we can write:

□(ABU): Necessarily, all bachelors are unmarried adult males.

And, since □(ABU) is true, then (ABU) is analytic. We could then also say that (CWH) is not analytic because

example, “the quotation ‘bachelor’ [is treated as] a single indivisible word and then stipulating that the interchangeability *salva veritate* which is to be the touchstone of synonymy is not supposed to apply to fragmentary occurrences inside a word.” (Quine, 27-8)

³² Quine, 30

³³ Ibid.

³⁴ Ibid.

□(CWH): Necessarily, all and only creatures with hearts are creatures with kidneys

is false.

But, according to Quine, the problem with allowing the notion of necessity is that to suppose the term 'necessarily' makes sense is to "suppose we have made satisfactory sense of 'analytic'."³⁵ To suppose that we can work with a language rich enough to give us a modal adverb that yields a positive truth-value only when applied to analytic statements is to suppose that we have already made sense of what it means for something to be analytic; "...such a language is intelligible only insofar as the notion of analyticity is already understood in advance."³⁶ In short, Quine's argument is that any definition of type-*two* analyticity is circular, dependent on notions that can only be explained in terms of each other, viz., analyticity, synonymy, and necessity.

Condition SC1

(SC1) captures what I referred to earlier as (and what Hanna calls) classical logical truths; they are propositions that remain true under any interpretation of their components other than their logical particles. Since all analytic truths captured by (SC1) remain true under any interpretation of their components other than their logical particles, then *all analytic truths captured by (SC1) are captured by Quine's definition of type-one analyticity.*

For the sake of being systematic, it should be noted that although Quine does not argue against type-one analyticity in *Two Dogmas*, it would be false to argue on

³⁵ Quine, 29

³⁶ Quine, 30

these grounds that *Two Dogmas* fails to undermine *exclusively* Kant's account of analyticity. This is because all other important accounts of analyticity, viz., both Frege's and Carnap's accounts, also consider type-one statements to be analytic. Thus, if Quine's failure to address type-one analyticity vindicates Kant's account, it also vindicates both Frege's and Carnap's accounts.

I will now turn to (SC2) and (SC3). It is with respect to *these* criteria that Hanna thinks Quine's critiques are not applicable to Kantian analyticity.

Condition SC2

According to Hanna, Quine's account fails to address Kantian analyticity because

[t]he total class of Kantian analytic propositions is not captured by determining the set of those propositions that are logical truths of elementary logic or else transformable into logical truths of that sort by replacing synonyms with synonyms... Synonymy, as Quine rightly points out, is the key to the Frege-Carnap theory of analyticity—but Kant does not make any sort of appeal to synonymy. So Quine's attack on the Frege-Carnap theory, even if completely sound, will obviously fail to undermine Kant's theory.³⁷

The idea is that Quine's critique of analyticity would require that Kant make reducibility to (SC1) by substituting synonyms for synonyms a necessary condition for analyticity. But, since Kant does *not* require that propositions that are analytic by (SC2) or (SC3) be reducible to propositions that are analytic by (SC1) by

³⁷ Hanna, 174-5

substituting synonyms for synonyms, then Quine's critique fails to undermine Kantian analyticity. For Kant, (SC1) is merely a sufficient condition for a proposition's being analytic, *not* a necessary condition. Furthermore, (SC2) and (SC3) are not only independently sufficient for a statements being analytic, but Kant actually brings statements that are analytic by (SC1) under his "broader conception of analytic truth according to which a judgment is analytic if and only if it is necessarily true by virtue of intrinsic conceptual interconnections alone."³⁸

But, Hanna wrongly assumes that Quine's attack would only be applicable to Kant's account if Kant required reducibility to (SC1) by substitution of synonyms for synonyms. Recall that (SC2) is meant to capture those truths whose denial results in a microstructural contradiction (or m-contradiction). In Hanna's own words, an m-contradiction occurs when and only when

the denial of a predicate concept generates an instance of a violation of the conceptual law of identity within the structure of the whole proposition...this would be to negate a concept that stands in a necessary identity relation to a concept already assumed to belong—as subpart—to the original concept...this is formally self contradictory at the level of conceptual microstructure, by virtue of including something of the form 'C, non-C'.³⁹

According to Hanna, a judgment is analytic by (SC2) if and only if the denial of the predicate concept yields a contradiction at the level of conceptual microstructure of

³⁸ Hanna, 149

³⁹ Hanna, 150-1

the form 'C, non-C'.⁴⁰ (Where "non-" stands for the operation of concept negation."⁴¹)

Take, for example, the m-analytic proposition (ABU). As before, by decomposing BACHELOR we reveal the partial concepts contained-in its conceptual microstructure:

$$\text{BACHELOR} = \langle \text{ADULT} + \text{UNMARRIED} + \text{MALE} \rangle$$

Given what we have said with respect to conceptual microstructures, it follows that the expression of the conjunction of all of BACHELOR's partial concepts would necessarily be the same as expressing BACHELOR. Substituting this set of concepts whose conjunctive expression is equivalent to BACHELOR yields a contradiction in the conceptual microstructure of the proposition $\sim(\text{ABU})$:

$$[(\text{Some } x) (\text{BACHELOR}_x = \langle \dots + \text{UNMARRIED}_x \rangle \text{ pred not-UNMARRIED}_x)]$$

Now, if, for example, ADULT, UNMARRIED, and MALE were not a part of the set of partial concepts whose conjunctive expression were identical with the expression of BACHELOR, then they would not be a part of BACHELOR's microstructure. And, if they were not part of BACHELOR's microstructure, then the negation of (ABU)

⁴⁰ For example, the representation of the contradiction in the denial of an m-analytic proposition would look like this:

$$[(\text{Some } x) (\text{BACHELOR}_x = \langle \dots + \text{UNMARRIED}_x \rangle \text{ pred non-UNMARRIED}_x)]$$

(Again, I do not make a distinction between 'non' and 'not'.)

⁴¹ Hanna, 150

would not yield an m-contradiction and thus not be analytic by (SC2).

I am making two points here. First, concept decomposition is a process by which we find the set of partial concepts whose conjunctive expression is identical to the expression of the concept we are decomposing. Second, by substituting the result of the decomposition for the concept we decomposed, we are able to yield an m-contradiction.

Thus, the notion of m-contradiction and hence (SC2) analyticity is dependent on the constituents of BACHELOR's microstructure—[UNMARRIED + ADULT + MALE]—being substitutable for BACHELOR. But, this relation between a concept and the set of partial concepts that constitute its microstructure, although not strictly speaking a synonymy relation, (since synonymy is a relation between words, not concepts), it nevertheless plays the same role as synonymy in yielding a contradiction. In other words, there still needs to be an identity relation between the expression of a concept and the conjunctive expression of every member of its conceptual microstructure, (call this *conceptual synonymy*). The only difference is that Kant's account of analyticity needs the appropriate identity relations between concepts rather than words.

The identity relation between conceptual synonyms such as BACHELOR and [UNMARRIED + ADULT + MALE] is not different in any significant sense from the sort of synonymy addressed by Quine. What is essential to Quine's critique is not that analyticity must be explained in terms of substitution instances of words for words. Rather, the crucial point is that the sort of identity relations needed to explain analyticity (whether it be of words or concepts) could not be made sense of without supposing we have

already made sense of what it means for something to be analytic. This is precisely the force of Quine's critique.

Condition SC3

As I explained earlier, Kant's third sufficient criterion for analyticity is dependent on a proposition's negation yielding a comprehensional contradiction. For example,

~(TT): Some triangulars are non-trilaterals⁴²

is c-contradictory because predicating 'non-trilateral' of 'triangular' makes TRIANGULAR an empty concept—it "*logically subtracts*" TRIANGULAR's entire comprehension.⁴³ And "whenever a concept C1 has its entire comprehension logically subtracted by predicating a concept C2 of C1, then C2 'comprehensionally contradicts' (or 'c-contradicts') C1."⁴⁴

As we have seen, TRIANGULAR and TRILATERAL have different microstructures. Thus, according to Hanna, it is in virtue of TRIANGULAR's and TRILATERAL's mutually shared comprehensions (rather than their conceptual

⁴² Again, for the sake of argument, I set aside the worry that this proposition seems synthetic given Kant's views on the synthetic nature of geometrical and mathematical truths. Nevertheless, I will briefly mention the worry. For Kant, many geometrical and mathematical concepts will share the same comprehension and thus seem to meet Hanna's requirement for (SC3) analyticity. But, it then seems that propositions that are definitely synthetic for Kant would be labeled as analytic. Thus, a proper account of Kantian analyticity necessitates a more definite distinction between analytic truths such as (TT) and the synthetic a priori truths of geometry.

⁴³ Hanna, 153

⁴⁴ Ibid.

microstructures) that the denial of TRILATERAL logically subtracts TRIANGULAR's entire comprehension.

It is clear, then, that here we need a notion of sameness of comprehension. That is, if predicating 'non-trilateral' of 'triangular' logically subtracts every possible member of the comprehension of TRIANGULAR, (and vice-versa), then TRILATERAL must have the *same* comprehension as TRIANGULAR. Hanna defines comprehensional identity as follows:

Concepts C1 and C2 have the same comprehension if and only if every object contained-under C1 is contained-under C2 and every object contained-under C2 is contained-under C1.⁴⁵

This is the same as saying that C1 and C2 have the same comprehension if and only if every logically *possible* C1 is a C2 and every logically *possible* C2 is a C1. To use our example, this is just to say that

Necessarily, all and only triangulars are trilaterals.

Thus, (SC3) analyticity is dependent on the notions of comprehensional identity and necessity.

We can now make clear the heart of my argument with respect to *both* (SC2) and (SC3). For Hanna to argue that Kantian analyticity is not addressed by Quine's critique in *Two Dogmas* because notions of microstructural and comprehensional analyticity do not require reducibility to (SC1) by substituting synonyms for synonyms is to miss Quine's point. It is simply irrelevant to Quine's critique that on Kant's account (SC2) and (SC3) are not reducible to

⁴⁵ Hanna, 143

(SC1) by substitution of synonyms. It is sufficient for the applicability of Quine's critique that Kant's account of analyticity does the following three things. (1) Contradiction is a necessary condition for analyticity.⁴⁶ (2) Contradiction requires identity relations (either comprehensional identity or conceptual synonymy). (3) These identity relations are explained in terms of the modal notion of necessity. If Kant does this, which he does, then he must respond to Quine's claim that any definition of analyticity is circular.

V. Epistemic and Logical Necessity

It might be argued that Kant defines necessity independently of analyticity and thus Kant's distinction escapes the charge of circularity. To be sure, Kant defines *two* distinct notions of necessity. The sort of necessity defined independently of analyticity is an epistemic notion of necessity. But, this epistemic necessity that is characteristic of Kant's transcendental idealism is simply a different notion of necessity than the necessity defined in order to capture analyticity. On the epistemic notion of necessity, something is necessary in virtue of "the special constitution of our sensibility, or true in all and only humanly experienceable worlds."⁴⁷ This is *not* the notion of necessity needed to explain analyticity. As we have seen, the notion of necessity needed in the explanation of analyticity, even for Kant, is necessity in virtue of the

⁴⁶ Whether it be conceptual microstructures or comprehensions, contradiction, for Kant, is still the necessary and sufficient condition for analyticity; "...we must allow *the* principle of contradiction to count as the universal and completely sufficient principle of all analytic cognition. [my emphasis]" (CPR B191)

⁴⁷ Hanna, 260

principle of non-contradiction, i.e., “true in all logically and conceptually possible worlds.”⁴⁸

VI. Conclusion

Thus, Kantian analyticity runs up against Quine’s claim that any definition of analyticity is circular. As noted earlier, this is not to say that Quine’s critique is successful in rejecting the analytic/synthetic distinction. It is to say that *if* sound, Quine’s critique in *Two Dogmas of Empiricism* will also undermine Kant’s analytic/synthetic distinction.

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⁴⁸ Hanna, 259