A CRITICISM OF OBJECTIVIST EPISTEMOLOGY

Abstract. We show that Rand's theory of concept formation, more specifically, the requirement that every concept subsume at least two entities, is inconsistent with her "axiomatic concepts" of existence and identity. We show how that requirement leads to the conclusion that at least one thing without identity must exist. We then conclude that in order to preserve logic and the axioms of identity and existence, the requirement that every concept subsume at least two entities must be rejected.

1. The Purpose of the Critique

I want to say first of all, that my overall goal in writing this critique is not to attack Objectivism for the sake of attacking Objectivism (nor reason, etc.) or Ayn Rand. Nor is it to promulgae some pet theory of my own. (The theorizing that I do do consists solely of what is necessary in order to expose the underlying assumptions of any theory of concept formation).

The purpose of philosophical critique is to bring to light often unquestioned or unrecognized assumptions; to carefully examine them, and to reject those found invalid, but also to increase our understanding of those found to be valid or at least partially correct.

2. A Philosophically Neutral Starting Point

Before one can offer any criticism of any theory of concept-formation, we must first of all establish what a 'concept' is. But more than that, what we really need is a philosophically neutral definition of 'concept' (to the furthest extent that such a thing is possible, anyway).

This is because we want to avoid biasing the investigation beforehand. If for example, we were investigating the existence of God, it would not do to allow the theist to define God as something that necessarily exists.

Similarly, we cannot presuppose Ayn Rand's definition of 'concept' in ITOE:

> A concept is a mental integration of two or more units which are isolated according to a specific characteristic(s) and united by a specific definition.

This is an operational definition. It defines 'concept' according to how such things are made. This definition is perfectly fine if Rand's theory of concept formation is true. But we cannot accept it for our purposes here because it lacks philosophical neutrality.

Returing to the example of theism, it is not that God could not be something that necessarily exists. But rather that the theist must offer some account of God's necessary existence apart from God's necessary existence in order to avoid circular reasoning. Similarly, by not presupposing Rand's definition of 'concept' we are not saying that it cannot be true nor that its negation is true. We are simply being careful to avoid circularity.

Let us give a more formal definition of philosophical neutrality and state clearly what it means for the evaluation of Rand's theory.

Definition 1. A set of statements Σ is *philosophically neutral* with respect to some set of philosophical positions Π if and only if all of the statements in Σ are logically independent of all of the statements of Π.

Therefore, the truth or falsity of Rand's theory of concept formation should not be deducible from our preliminary definitions of 'concept' (and possibly other related terms) alone. It falls on the author of this critique to show that the two are indeed logically independent. However, this involves a ton of work and seems to be beyond my abilities. Nonetheless, I believe that logical independence is plausible and I might provide the proof at some point in the future.

More specifically, someone who accepts the definition of 'concept' provided here should be able to also accept Rand's theory of concept formation without contradiction. If there is a direct contradiction between the definition provided here and Rand's theory of concept formation, then the critique is biased, and therefore, of little worth.

Finally, if the preliminary definitions are unbiased in the manner described above, then Rand's theory will succeed or fail based solely on its ability to explain the actual content of concepts.

For a more concrete example of the above, consider the debate between the geocentric and heliocentric theories of the solar system. We cannot define 'heavenly body' as 'something which goes around the Earth', for then the whole debate would be biased in favor of geocentrism. And it would also be inappropriate to define 'heavenly body' as 'something which goes around the Sun'. In order to adjudicate between the two theories, the definition of 'heavenly body' as 'something which is not on the surface of the Earth and which does not fall to the surface' is appropriate, because then the truth of the matter depends only on the actual observations of the motions of heavenly bodies.

3. Our Definition Of Concepts

Since the time of at least Plato, knowledge has been understood to consist of statements, e.g., "Mars is a red planet".

According to Aristotle:

Definition 2. A *statement* is a lingustic representation of reality (mental or non-mental). Furthermore, each statement concsists of a *subject* together with a *predicat*e.

Both true and false statements are representations of reality. This is not to say that false statements are somehow true of reality, just that both kinds of statements are needed to faithfully represent reality. That is, it would be very strange and probably nonsensical to say that "Mars is a red planet" is true and at the same time to maintain that "Mars is not a red planet" could not thereby be proven false from "Mars is a red planet".

Subjects represent the things in reality that statements are about.

Definition 3. A *predicate* is that which can be *said of* some subject. For example, in the statement "Mars is a red planet", "Mars" is the subject while "a red planet" is the predicate.

Note that the word "is" is not part of the predicate. Aristotle distinguishes between two notions of "is". There is the "is" of identity and the "is" of predication. This distinction was introduced to resolve many Parmenidean paradoxes.

For example, "Ayn Rand is The Founder of Objectivism" expresses a relationship of identity, while "Ayn Rand is a woman" expresses a relationship of predication. Note that it makes sense also to say that "The Founder of Objectivism is Ayn Rand" but that it makes no sense to say that "A woman is Ayn Rand".

If subjects represent *things*, then predicates represent *concepts*. This leads us to our definition of concepts:

Definition 4. A *concept* is a mental phenomenon that which, given a subject, outputs a statement about the subject.

There are a few things we need to note about concepts.

The first is that they are capable of *subsuming* subjects. "A red planet" subsumes "Mars" along with many other things.

The second is that the statements produced by a concept do not have to be true. It is possible to apply the concept "a red planet" to Earth and thereby obtain the false statement, "The Earth is a red planet".

Definition 5. A concept is said to *subsume* a subject if and only if every statement that the concept produces about the subject is true.

Thus, the concept of "a red planet" (that is, the concept which is represented by the predicate "a red planet") can be applied to both Earth and Mars but only subsumes Mars, because "Mars is a red planet" is true but "Earth is a red planet" is false.

The third is that a concept does not represent anything, not even the totality of the subjects it subsumes. A totality would be represented by a subject because things can be said of the totality of red planets. Instead, a concept is what connects statements to subjects.

4. Fundamental Assumptions

The content of this next section is extremely subtle but of utmost importance. It concerns the relationships among predicates, concepts, statements, and logic.

Before proceeding, let us explain what is meant here by "axiom" and what role they serve in the overall analysis. An axiom here is simply a common sense, although completely explicit, assumption we must make about concepts.

I do not claim that these axioms are self-evident nor that everyone must accept them. Rather, I hold that they are implictly regarded as true by any reasonable person, just as the axioms of arithmetic or geometry are implicitly regarded as true by any reasonable person.

Anyone is perfectly welcome to disagree with them, but then it is on them to explain how the axiom(s) that they disagree with could possibly fail, and to offer an epsitemological account of concepts and their relation to statements assuming the negation of the axiom(s) that they disagree with.

Furthermore, someone who rejects one (or evan all) of these axioms is not necessarily in contradiction. It is more that, just as if he were to reject the arithmetical axiom that $m = n$ whenever $m + 1 = n + 1$ his ideas about numbers would be too different from what most reasonable people think of as a number, his ideas about

concepts will similarly have virtually no relation to what is meant by the same term as used by most reasonable people.

All of the theorems presented here follow by logical necessity from the given aixoms. One cannot consistently reject a theorem while accepting the axioms prior to it and on which its proof depends. If he does so, then the burden of proof is on him to show that the proof provided is erroneous.

The role that these axioms serve in the overall analysis is to 1) expose the underlying assumptions we have about concepts; but more importantly to 2) allow anyone who disagrees with our final conclusion to backtrack through the logical steps used to arrive at it and pinpoint the real source of their disagreement; and finally, of course to 3) establish the truth of the conclusion.

Definition 6. A predicate φ is equivalent to a predicate ψ if and only if, for every subject x, $\varphi(x)$ if and only if $\psi(x)$. Here, $\varphi(x)$ is the statement obtained by combining the predicate φ with the subject x.

Therefore, two predicates are equivalent if and only if all of their corresponding statements are logically equivalent. For example "red and a planet" and "not neither red nor a planet" are equivalent predicates because: "Mars is red and a planet" is true if and only if "Mars is not neither red nor a planet" is also true, "Earth is red and a planet" is true if and only if "Earth is not neither red nor a planet" is true, ... , and so on for every other such statement.

We now introduce this fundamental assumption about the relationship between the equivalence of predicates and the representation of concepts:

Axiom 7. (Axiom of Concept Representation) *For all concepts c and all predicates φ and all predicates ψ, if φ represents c and if φ is equivalent to ψ, then ψ also represents c.*

What the above axiom basically comes down to is that people understand logic. If one understands every statement like "Mars is red and a planet" then one cannot also fail to understand any logically equivalent statement such as "Mars is not neither red nor a planet". Equivalently, one does not need any further concepts to understand the statement "Mars is not neither red nor a planet".

Since there is an infinite variety of predicates equivalent to each predicate, no predicate alone can capture the full meaning of a concept.

Definition 8. A collection of predicates Π is a *total representation* of the concept c if and only if 1) there exists at least one predicate φ in Π such that φ represents c and 2) every predicate ψ of Π is equivalent to φ and 3) there is no predicate χ which represents c but which is not in Π.

In the above, condition 1) ensures that it is impossible for a set of predicates to represent a concept while none of its members do. Condition 2) ensures that every predicate in that set is equivalent to a predicate which represents the concept. And finally condition 3) ensures that the set is the largest such set possible.

Now we can prove the following simple theorems:

Theorem 9. *Given a concept c and a total representation of c, Π, every predicate φ of Π represents c.*

Proof. Suppose that there exists some predicate ψ of Π which does not represent c. By part 1) of the definition of Π, there exists some predicate φ of Π which

represents c. By part 2) of the definition of Π, ψ is equivalent to φ. By the axiom of concept representation, ψ represents c. A contradiction. □

Theorem 10. *If any two concepts c, c', are both represented by the same predicate φ, then every predicate ψ which represents c also represents c'.*

Proof. Let c, c' be any two concepts and let φ represent them both. Without loss of generality, assume that ψ is a predicate which represents c but not c'. By definition 8, ψ is equivalent to φ. Therefore ψ is in the total representation of c as well as the total representation of c'. By theorem 9, ψ represents both c and c'. A contradiction. □

Theorem 11. *For every concept c, if there exists a total represenation of c, Π, then Π is unique.*

Proof. Let Π and Π' both be total representations of c. Since, by theorem 9, every predicate of Π represents c and since there are no predicates which represent c that are not in Π, and since the same holds true for Π', then every predicate in Π is also in Π' and vice versa. Hence $\Pi = \Pi'$. □

Axiom 12. (Axiom of Existence for Total Representations) *For every concept, there exists at least one non-empty set of predicates which totally represents the concept.*

The above axiom essentially says that every concept can be talked about in terms of predicates.

Theorem 13. *For every concept c, there exists a unique total representation.*

Proof. From axiom 12 and theorem 11 by modus ponens. □

The above theorem is very important. It says that talking about concepts in terms of predicates cannot result in confusion.

Theorem 14. *For every concept c, there exists at least one predicate which represents c.*

Proof. From axiom 12, every c has a non-empty total representation. □

Axiom 15. (Axiom of Identity for Concepts) *Two concepts c, d, are identical if and only if every predicate which represents c also represents d and vice versa.*

Theorem 16. *If a predicate φ represents some concept c, then it does not represent any other concept.*

Proof. Suppose that there exist two distinct concepts c and c' and let φ represent both c and c'. By theorem 10, every predicate ψ which represents c also represents c' and vice versa. By axiom 15, $c = c'$. A contradiction. □

The above axiom and theorem establish that the same predicate cannot represent two different concepts.

Note that we cannot prove the following proposition from the above axioms:

Proposition 17. *For every predicate, there exists some concept which the predicate represents.*

Nor even:

Proposition 18. *There exists at least one concept.*

Much like not every sequence of words in English results in a meaningful statement, not every predicate represents a concept.

Furthermore, we will not introduce any concept exitence axioms either. What this means is not that we are saying that no concepts exist, but that our analysis will not investigate the existence of concepts in an absolute sense. We will only ask questions about what concepts must also exist given that this or that other concept exists.

Most importantly, simply assuming that this or that concept exists is precisely what would result in the introduction of bias to the underlying theory. All one would have to do to 'disprove' Rand's theory is to subly assume the existence of a concept which is tailor-made to refute her theory and proclaim victory. But that would be a cheap shot which hurts the user more than the target.

Axiom 19. *Given a set of predicates* Π*, let* π *be any sequence of the predicates of* Π *and let* f *be any logical formula. If for each predicate* φ *of* Π*, there exists a concept* c *such that* φ *represents* c*, then* $f(\pi)$ *(the result of applying the logical formula to the sequence of predicates* π*) also represents some concept.*

This axiom establishes the intelligibility of logic.

To illustrate what it says, suppose that the concepts represented by the predicates "a thing that is red" and "a thing that is a planet" exist. Then, any concepts formed by a logical combination of one or both concepts must also exist. For example, "a thing which is not a planet", "a thing which is not red", "a thing which is both red and a planet", "a thing which is red or a planet", "a thing which is a planet if it is red", "a thing for which there exists another thing such that the second thing is not red whenever the first is a planet", and so on.

This axiom is best understood by comparing and contrasting it with axiom 7. Axiom 7 says that a concept does not change under a logical equivalence of any of its predicates. On the other hand, axiom 19 says that a logical transformation (not necessarily an equivalent) one never leads to something which is not a concept. More succinctly, the axiom says that it is not possible to create nonsense by using concepts in logic.

5. The Objectivist Theory of Concept Formation

The Objectivist theory of concept formation makes *at least* the following claims:

Claim 20. For every concept, there are at least two (non-mental) subjects subsumed by the concept.

Claim 21. Existence exists. That is, the concept represented by the predicate "has existence" exists.

Claim 22. A is A. That is, the concept represented by the predicate "has identity" exists.

Notation 23. From now on, whenever we refer to the Objectivist concepts of identity and existence, we will underline them. The predicate "has existence" will be denoted by *ex* and the predicate "has identity" will be denoted by *id*.

Theorem 24. *There exists a thing which has existence but no identity.*

Proof. By claim 21 the concept existence exists. By claim 22, the concept identity exists. By axiom 19, the concept represented by the predicate "does not have identity" exists. Again by axiom 19, the concept represented by the predicate "has existence and does not have identity" exists. By claim 20, there exist at least two (non-mental) things subsumed by the concept represented by the predicate "has existence and does not have identity". Therefore, there exists some x subsumed by the concept represented by the predicate "has existence and does not have identity". By the definition of subsumption, there is at least one thing for which x such that "x exists but has no identity" is true. □

Suppose we reject claim 22. Then, we still have

Theorem 25. *There exists a thing which does not have existence.*

Proof. Similarly to the proof of theorem 24, since the concept of existence exists, by axiom 19, the concept of non-existence also exists, and by claim 20 and the definition of subsumption there exists at least one thing x for which "x does not exist" is true. □

Suppose we reject claim 21. Then, we still have

Theorem 26. *There exists a thing which has no identity.*

Proof. Similar to the above. □

Note that, if we reject claim 20, then the contradictions disappear. But the contradictions also disappear if we reject axiom 19. But then we would also lose the intelligibility of logic.

6. The Way Forward

Obviously, we should not reject the concepts of identity and existence. Knowledge would simply be impossible without them. Nor should we get rid of logic. The only solution is to reject the claim that every concept subsume at least two entities.

How then are concepts then formed if not by looking at their referents? Honestly, I don't know. But it's a much smaller problem than living with existence, identity, or logic.

In conclusion, the point of all of this is that the question of which concepts actually exist is of fundamental importance. What claim 20 is *really* saying is that "If I can think of it, it exists", when what it *should* be saying is that "if it exists, then I can think of it".

This second sense is precisely what a concept existence axiom would do. A concept existence axiom would be something along the lines of "There exists a concept such that..." or maybe "For each thing, there exists a concept such that..." and definitely not "For each concept there exists a thing such that..." (this last type of thing is what leads to contradiction). Of course, determining what that axiom should be is no easy task. Perhaps the axiom should state that concepts corresponding to sensory modalities exist, or maybe it should say that concepts corresponding to mathematics exist, or both. But certainly neither would be inconsistent with the axioms of identity and existence.