

Ayn Rand on Units, Essences, and the Intrinsic

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I

The various features of Ayn Rand's epistemology have received little critical scrutiny from contemporary philosophers, even less than her defense of rational egoism and laissez-faire capitalism.¹ It is important for those who consider Rand's ideas worth studying to rectify this situation, if for no other reason than the fact that Rand herself regarded her metaphysical and epistemological views as fundamental and her views in ethics and political-economic philosophy as derivative. This is clear from her remark that:

I am not *primarily* an advocate of capitalism, but of egoism,... and I am not *primarily* an advocate of egoism but of reason. If one recognizes the supremacy of reason and applies it consistently, all the rest follows. This - the supremacy of reason - was, is and will be the primary concern of my work, and the essence of Objectivism.²

Rand obviously needs an account of how reason - our conceptual faculty - works. In *Introduction to Objectivist Epistemology*³ she developed the central component of such an account, her theory of concepts. "Since man's knowledge is gained and held in conceptual form," she wrote, "the validity of man's knowledge depends on the validity of concepts."⁴ In other words, Rand was fully aware that her position stands or falls with its theory of concepts.

In this article I intend to discuss certain troublesome features of this theory and draw some consequences. Specifically, I will consider Rand's concept of a *unit* and argue that it contains a serious ambiguity. This ambiguity will lead to problems for her position on the status of *essences*; the result will be that the arguments she brings against the position she describes under the name *intrinsicism* do not justify her rejection of it. A couple of general remarks are in order first, though. Though taking Rand seriously as a philosopher, this article reaches a conclusion she explicitly rejects and repudiates; hence it might seem the work of another typical "modern philosopher." It is unfortunate that if Rand has been regarded negatively by academics, the feeling was mutual. She never passed up an opportunity to take swipes at "modern philosophy." Her immediate followers (except for David Kelley) have mostly continued in this same vein.⁵ But maybe Objectivists and "modern philosophers" can learn from one another. If common ground exists and can be identified, potentially fruitful exchanges between Objectivists and non-Objectivists become possible - contingent, of course, on the willingness of each side to recognize the legitimacy of the other's position, if stated in good faith.⁶ This, at any rate, is the intended spirit of the present discussion.

II

According to Rand, concept formation involves both integration and differentiation; it involves an integration of percepts on the basis of at least one common characteristic which differentiates them from all other existents. Rand defined a *concept* as "a mental integration of two more units possessing the same distinguishing characteristic(s), with their particular measurements omitted."⁷ Two or more entities are regarded as *units* and "isolated according to a specific characteristic(s) and united by a specific definition."⁸ Omitted measurements "must exist in *some* quantity, but may exist in *any* quantity"⁹; that is, the differences between individuals subsumed under a single concept are unspecified. The concept *unit* is extremely important; Rand calls it "the entrance to the conceptual level of man's consciousness. *The ability to regard entities as units is man's distinctive method of cognition*, which other living species are unable to follow."¹⁰ It is worth noting, though, that units do not exist as such; to regard something as a unit is a specific act of human consciousness:

A unit is an existent regarded as a separate member of a group of two or more similar members. (Two stones are two units; so are two square feet of ground, if regarded as distinct parts of a continuous stretch of ground). Note that the concept *unit* involves an act of consciousness (a selective focus, a certain way of regarding things),...¹¹

Yet the decision to regard entities as units is not arbitrary but rather

a method of identification or classification according to attributes which a consciousness observes in reality... Thus the concept *unit* is a bridge between metaphysics and epistemology: units do not exist *qua* units, what exists are things, but *units are things viewed by a consciousness in certain existing relationships*.¹²

In other words, units *qua* units are ontologically dependent on consciousness; the existents so regarded are independent.

On closer inspection, however, an ambiguity has emerged. For if we look at Rand's examples, it is clear that she has used the term *unit* in two different senses. In *one* usage, units are derived solely from invented standards of measurement. Yards on a football field, for example, are units in this sense ("two square feet of ground"). Outside the rules of football, there is nothing special about these patches of ground which suggests or justifies individuating them in this particular way. The length was optional; it could have been meters, for example. In a *second* usage, units are physically distinct existents in which the basis of identification as such is inherent in them, usually because we can identify at least one attribute which the items can be seen or shown to share, and which do not depend on rules of human invention (aside, of course, from the trivial sense in which all languages and systems of classification are human inventions of a very special sort). Consider Rand's own examples of tables. There are certain things which we can say are true of all tables: they are all items of furniture consisting of a flat surface on which smaller items can be placed, and have at least one support. Each table, individually, has these parts; remove them, and one no longer has a table, only parts of a table. So units in this sense are indivisible existents. Or consider samples of typical substances such as gold. Initially we

do have the option of individuating units on the basis of observation again, depending on our purposes, so that our units are, say, gold nuggets or gold coins; but these are not indivisible entities in the fundamental sense of indivisibility. Split any item made of gold in half and one still has two pieces of gold. At the micro level, however, we can individuate so as to identify indivisible existents: atoms of gold. Rand seems to have overlooked the crucial concept here: *indivisibility*. Units in the fundamental sense of this term cannot be divided up into existents more basic than themselves and still retain their identity. Hence patches of ground are not really units in the most fundamental sense of this term. Divide a patch of ground in half, and one has two patches of ground. Split an atom of gold and one has not gold but two more basic chemical elements.

In that case, an entity's status as a unit is not derived from a standard of measurement or system of notation; on the contrary, in the case of the gold example scientists have developed systems of classification according to discoveries such as the internal structure of the atom which led to the realization that, to all indications, the most basic components of everything we call *gold* have 79 protons in their nuclei. So in the case of patches of ground, "units" depend on systems of notation which are, in the last analysis, optional; in the second, systems of notation and classification depend on entities' status as indivisible primaries whose indivisibility does not depend on human contrivances. In the gold example, the use of atomic numbers is a consequence of scientists' having identified what it is for something to be a chemical element, versus what it means for something to be a sample of a particular chemical element.

III

Rand might reply here that the latter usage - and the insistence on a distinction here - falls into the error of *intrinsicism*. In *IOE* she distinguishes her position from this one, which has its roots in the Aristotelian theory of essences:

...Aristotle held that definitions refer to metaphysical *essences*, which exist *in* concretes as a special element or formative power, and he held that the process of concept-formation depends on a kind of direct intuition by which man's mind grasps these essences and forms concepts accordingly.

Aristotle regarded "essence" as metaphysical; Objectivism regards it as *epistemological*.

Objectivism holds that the essence of a concept is that fundamental characteristic(s) of its units on which the greatest number of other characteristics depend, and which distinguishes these units from all other existents within the field of man's knowledge. Thus the essence of a concept is determined *contextually* and may be altered with the growth of man's knowledge.¹³

For Plato, of course, essences were universals or Forms existing in a nonspatiotemporal, ideal realm; in no sense were they ontologically dependent on their instantiations as concrete particulars. In Platonist epistemology, essences are therefore not "grasped" through a study of concrete particulars but a process of "recollection" which is primarily intellectual. In Aristotle's philosophy, essences served at least two isolable purposes, which, taken together, may avoid this final result of Plato's. The first purpose was to

provide a basis for classifying existents, identifying which natural classes to place them in. The second was to identify the "nature" of these items, i.e. attributes the possession of which is a necessary condition for a given existent to be the kind of thing it is. This second sense provides the justification for the classification. Aristotle, then, was the first essentialistic realist. According to him, classifications are possible because nature comes to us divided up into kinds; what we must do is learn to identify these kinds by identifying the essential attributes of their concrete particular instantiations. This conceptual framework provided him the guidelines for the invention of several sciences.

Thus Rand can contrast her position with that of both Plato and Aristotle. Both, in their different ways, regarded essences as *intrinsic*, "as special existents unrelated to man's consciousness."¹⁴ For Rand essences, like units, do not exist as such but are products of a uniquely human way of defining kinds; the identification of the essence of something is *contextual*, and depends on the state of one's knowledge of a kind; it is supplied by a definition. The Appendix to the new edition of *IOE* adds to this thesis of the *contextual* nature of essence identification: "When you know more, you select a different essential characteristic by which to define the object, because you now have to differentiate it more precisely."¹⁵ The point is, it is *us*, human agents, which are doing the selecting and differentiating; the world does *not* come to us automatically divided up into kinds. As David Kelley puts it, "[Rand] is not a realist in either the Platonic or the Aristotelian sense. She holds that abstract properties do not exist as such - as abstract - apart from human conceptual processes."¹⁶

Given this, what prevents Rand's position from lapsing into a form of subjectivism, a form of the claim that essences are products of consciousness? What prevents Objectivism from "assuming that reality must conform to the content of consciousness, not the other way around"?¹⁷ Her answer is that neither Platonists nor Aristotelians - not to mention nominalists - regarded concepts as *objective*. According to Rand:

Objectivity begins with the realization that man (including his every attribute and faculty, including his consciousness) is an entity of a specific nature who must act accordingly; that there is no escape from the law of identity, neither in the universe with which he deals nor in the workings of his own consciousness, and if he is to acquire knowledge of the first, he must discover the proper method of using the second; that there is no room for the *arbitrary* in any activity of man, least of all in his method of cognition - and just as he has learned to be guided by objective criteria in making his physical tools, so he must be guided by objective criteria in forming his tools of cognition: his concepts.¹⁸

To regard concepts as *objective* means to regard them as

neither revealed nor invented, but as produced by man's consciousness in accordance with the facts of reality, as mental integrations of factual data computed by man - as the products of a cognitive method of classification whose processes must be performed by man, but whose content is dictated by reality.¹⁹

This raises a wide variety of questions which invoking the adjective *objective* won't by itself answer. Wallace Matson, for example, feared that "the phrases *mental integration* and *produced by man's consciousness* bear within them the seeds of subjectivism."²⁰ His

ensuing discussion raised the issue of whether Randian concepts can be anything other than Cartesian or Lockean "ideas." The crux of the issue turns on the cash value of saying that concepts are *produced* as opposed to invented. So let us frame our query this way: if there are no intrinsic essences, then by what means is the content of a concept dictated by reality, and to what extent? To judge the adequacy of Rand's answer we have to take a closer look at concepts as she conceives them.

IV

According to Rand, concepts are formed by specific acts of consciousness on the part of individual persons. Accordingly, it is necessary to distinguish between the process of concept-formation and the product. This she does. The process, she says, is one of integration and differentiation according to the similarities and differences one immediately perceives.²¹ The product is an open-ended higher-order unit which *all* the concretes of a particular kind can be subsumed, not merely the ones observed:

A concept is not formed by observing every concrete subsumed under it, and does not specify the number of concretes. A concept is like an arithmetical sequence of *specifically defined units*, going off in both directions, open at both ends, and including *all* units of that particular kind.²²

And "In order to grasp a concept, [an individual] has to grasp that it applies to all entities of that particular kind. If he doesn't, he is merely repeating a word."²³

Let us consider both in the light of the intrinsicism question. It should be clear that the process is, by its very nature, dependent on consciousness. The real questions then are, to what extent is the product also dependent on consciousness, and to what extent is its content "dictated by reality?" Rand's statements are actually equivocal. On the one hand, concepts look to be context-dependent:

Concepts are not and cannot be formed in a vacuum; they are formed in a context; the process of conceptualization consists of observing the differences and similarities of the existents *within the field of one's awareness* (and organizing them into concepts accordingly). From a child's grasp of the simplest concept integrating a group of perceptually given concretes, to a scientist's grasp of the most complex abstractions integrating long conceptual chains - all conceptualization is a contextual process; the context is the entire field of a mind's awareness or knowledge at any level of its cognitive development.²⁴

This suggests a view of concepts as mind-dependent entities whose content depends on the amount of experience and level of knowledge of the persons who have formed them, and whose reference class changes accordingly with changes in experience and level of knowledge. However, on other occasions Rand's description of the content of concepts reaches for something more ambitious:

Concepts stand for specific kinds of existents, including *all* the characteristics of these existents, observed and not-yet-observed, known and unknown.

It is crucially important to grasp the fact that a concept is an "open-end" classification which includes the yet-to-be discovered characteristics of a given group of existents. All of man's knowledge rests on that fact.²⁵

This says that concepts are the results, not just of a familiar inductive inference from a statement about a given range of particulars of a specific kind within a specific context to one about all the particulars of the kind, but of a leap from those attributes of those particulars which are known to a description which, if completed, would include both known and unknown attributes (unknown, that is, at the time of concept-formation). To my mind, this suggests views of concepts as quasi-Platonic entities, quite contrary to Rand's further remark that "concepts are not...a repository of closed, out-of-context omniscience..."²⁶

She cannot have it both ways. The position she takes on how concepts are formed suggests the former route, that concepts are not merely formed in a context but are themselves contextual entities which change in response to demands made on them. This suggests a response to a query above. Similarities and differences are observed all around us; as we learn, we become aware of still more similarities in and differences between familiar objects and previously unknown ones. This enables us to sharpen and improve our concepts. But similarities and differences are not perceived in a vacuum, as it were. Existents are similar because of common characteristics. But not just any common characteristics will do. After all, a red Porsche, a red apple, a red Christmas-tree ornament, and a red paperback novel all have the common characteristic *redness*. What the existents in this list lack, though, is a *fundamental* common characteristic which enables them to be treated as instances of a single kind. Rand's discussion of her 'conceptual common denominator' and her epistemological 'razor' indicate her awareness that not just *any* common characteristics will do as a basis for classifying existents.²⁷ What fundamental classification requires is that the existents being classified have attributes which (for lack of any better word) are intrinsic, where *intrinsic* here means inherent in them and not revealed, invented, or "produced". If identifying similarities involves "selective focus," there must be something for a consciousness to focus on; this something must not be dependent on consciousness, otherwise we find ourselves having lapsed back into some version of what Rand elsewhere calls the primacy of consciousness;²⁸ we would be perfectly justified in considering concepts the arbitrary posits of our individual consciousness.

V

Our first and most important result, then, is that the middle ground Rand seeks between concepts as arbitrary posits and as identifications of intrinsic essences is illusory. There can be no such middle ground between what Rand calls intrinsicism and some kind of subjectivism; essences are either inventions or they are intrinsic to the natural kinds to which they supply identity. Indeed, I would go so far as to say that Rand's strict adherence to the law of identity and her insistence that existents have specific natures *requires* that something like what she calls intrinsicism be true. This throws her rejection of it into doubt. Let's review her reasoning. On most occasions (despite a distinct preference for Aristotle's "moderate realism" over Plato's "extreme realism") she seems to regard the view that essences are intrinsic as on a par with mysticism and supernaturalism: "Philo-

sophically, the mystic is usually an exponent of the intrinsic (revealed) school of epistemology," she says.²⁹ And Peikoff repeats the characterization of metaphysical essences as supernatural in "The Analytic-Synthetic Dichotomy."³⁰ There is little in the Appendix to the second edition of *IOE* which justifies this directly. The closest we come to an *indirect* justification begins with Rand's view that only concretes exist.³¹ This requires that all concepts be rooted in experience of concretes and be, themselves, concretes. An essence inhering in all the concretes of a kind cannot itself be an individual concrete. Hence there can be no intrinsic essences, only perceived similarities; similarities alone provide the basis for concept formation.

However, if perceived similarities between existents alone form the full basis for concepts, we are uncomfortably close to something on the order of Wittgenstein's notion of "family resemblances": another notion she explicitly repudiates as the product of a "mind out of focus."³² It is interesting, though, that essentialism was one of the main targets of Wittgenstein's later writings. I think both Rand's integration of and differentiation between similarities amidst percepts as the sole basis of concept-formation as well as Wittgenstein's classification on the basis of resemblances overlook problems which arise whenever a fully realistic metaphysics is abandoned.

VI

It might help to consider what a reasonable version of "intrinsicism" might look like. Consider middle-sized objects such as tables. Let us note again that the features of tables which make them tables as opposed to chairs, shelves, and sofas, can be observed, as is proper for middle-sized objects. We can readily identify points of commonality (not mere similarity) between all tables such as: at least one support, flat upper surface, capacity for holding smaller objects. These points of commonality may be contrasted with points of difference between individual tables: some have four supports, some three, some just one; some have transparent tops, others opaque tops; and so on. In this case, what is integrated in the formation of the concept *table* is not mere similarity in our percepts but points of commonality observed in tables. Or consider again our gold example. This example is considerably more complicated, because in its observation is not direct but supplemented by elaborate scientific instrumental as well as theoretical apparatus. The result, however, is the same. Atoms of gold must have 79 protons in their nuclei; else they are not atoms of gold but of some other chemical element. This is the point of commonality between gold's most fundamental units. Middle-sized objects comprised of gold are therefore comprised of atoms with 79 protons in their nuclei in addition to whatever properties they might have as middle-sized objects; this is the point of commonality between all directly visible objects made of gold whatever the individual differences between different concrete objects and between different atoms of gold (such as number of neutrons). A human being, finally, has a certain genetic and physiological make-up, including a brain and central nervous system capable of processing and integrating information on the conceptual level; these are the points of commonality between individual human beings, whatever the differences between individuals. An *essence*, then, just is the sum total of these points of commonality (not mere similarity) which all existents of a given kind share - both the known and the unknown. In other words, speaking of *similarities*, while it might do as a starting point, is in the last analysis too conservative; it does not explain.

Are these points of commonality special, mystically-intuited attributes? No. In fact, to speak of them as *attributes* at all is potentially misleading. For there is no special, nonphysical *attribute*, having 79 protons in a nucleus, that supervenes "above" atoms of gold; rather, being comprised of atoms with 79 protons simply *is* what gold is. The same would be true of tables, or indeed of any other kind. To my mind, we have to be very careful with this concept *attribute*, lest we lapse into substance-metaphysics which regards all existents as comprised of attributes adhering in a substratum like pins sticking out of a pincushion. To her credit, Rand avoids such a metaphysics; she tells us that "attributes *are* the entity, or an entity *is* its attributes";³³ according to Rand's metaphysics, existence is identity; to be is to be a specific something. Consciousness is identification; to be conscious is to be capable of focusing on and identifying something. In that case, it obscures rather than clarifies to say that the points of commonality which comprise the essence of all those existents of a given kind result from the way human consciousness regards kinds; to my mind, it makes much more sense to say that human consciousness has identified kinds by identifying what all known instances of those kinds share in common, and by gradually improving and expanding the content of our identifications. Our knowledge of, say, the microstructure of gold, did not result from a "mystical intuition." It resulted from well-chronicled scientific investigations. In that case, the observed or discovered points of commonality which are identified as necessary conditions for something being what it is and being the *kind* of existent it is, just *are* the essences, and provide the basis for concept formation and the justification of concepts. It follows that essences do not depend for their existence on being regarded a certain way by a conscious being, though their *recognition* as such probably does depend on one's selective focus. The fact that essences *have been* grasped indicates that they have been observed or in some other way brought within reach of the humanly knowable by means of extensions of our senses (say, scientific instruments) whose results have been integrated by means of a concept. In the final analysis, then, if we develop "intrinsicism" this way, it is considerably more defensible than Rand paints it. The substance-attribute dichotomy is indeed suspect (probably much more so than the analytic-synthetic dichotomy). But once his substance metaphysics is subtracted, Aristotle's position comes off looking pretty good.

VII

To my mind, restoring to essences their metaphysical status ought to yield a position which is *more*, not less objective. Of course, if construing essences as epistemological is itself essential to Objectivism, we would probably not want to call it a version of Objectivism (for lack of a better term I would suggest Intrinsicism - capital *I*). Returning to the traditional view actually allows us to make use of several Randian insights which strike me as substantially correct and important, but which are otherwise puzzling. First, consider again Rand's comments on the contextual nature of concept-formation and definition. Definitions, she says, are always contextual;³⁴ a definition "identifies the nature of the units subsumed under a concept."³⁵ An objective definition designates essential defining attributes.³⁶ Here the ambiguity we noted above reappears. It remains a curious anomaly that the content of a concept is exempt from this otherwise universal contextualization of our knowledge; concepts do not change, only our knowledge changes.³⁷ In that case, given

that according to Rand our knowledge consists of valid concepts, what, precisely, is it that is changing?

Let us back up a step. What are concepts, really? If we attempt to dig to a level deeper than phrases like *mental integration* and *product of man's consciousness* Rand's answer is not particularly helpful. According to Rand, concepts are "mental entities." Her explication, again, seems to vacillate between quasi-Platonism and quasi-Cartesianism. Consider the following exchange, from the second edition of *IOE*:

Prof. F: If you and I have the same concept, does that mean that the same entity is in both of our minds?

Ayn Rand: If we are both careful and rational thinkers, yes. Or rather, put it this way: the same entity *should* be in both of our minds.

Prof. F: Okay, taking concepts, therefore, as entities: they do not have spatial location, do they?

AR: No, I have said they are *mental* entities.

Prof. F: When you say a concept is a mental entity, you don't mean "entity" in the sense that a man is an entity, do you?

AR: I mean it in the same sense in which I mean a thought, an emotion, or a memory is an entity, a mental entity - or put it this way: a phenomenon of consciousness.³⁸

This sort of vagueness is likely to drive many analytic philosophers away from Rand's views; it would hardly satisfy contemporary philosophers of mind, as it seems to suggest on the one hand that concepts are, in some sense, mind-dependent (suggesting Cartesianism) but on the other not dependent on any one mind (suggesting Platonism). When pressed for elaboration, Rand allowed distinct Platonic elements to appear *and openly acknowledged them as such*:

Prof. B: ...The concept as a mental entity is determinate. It's individual, it has identity,... The concept, if it is formed correctly, has a determinate reference, which means that it refers to a determinate aspect of reality. To say that the concept is less determinate than the concrete is to treat the concept as if it were a concrete in reality-

AR: Of a different kind, yes. That's right. That's the element that is somewhat Platonic here.³⁹

But identifying Rand as a closest Platonist may be too hasty; there are other indications that she was grasping at ideas for which no one yet has adequate terminology:

AR: ...I kept saying...that we can call [concepts] "mental entities" only metaphorically or for convenience. It is a "something." For instance, before you have a certain concept, that particular something doesn't exist in your mind. When you have formed the concept of *concept*, that is a mental something; it isn't a nothing. But anything pertaining to the content of a mind always has to be treated metaphysically

not as a separate existent, but only with this precondition: in effect: that it is a mental state, a mental concrete, a mental something. Actually, "mental something" is the nearest to an exact identification. Because "entity" does imply a physical thing. Nevertheless, since "something" is too vague a term, one can use the word "entity", but only to say that it is a mental something as distinguished from other mental somethings (or from nothing). But it isn't an entity in the primary, Aristotelian sense in which a primary substance exists.⁴⁰

I think there is an important insight here. Let me suggest that we eliminate residual Platonism/Cartesianism by regarding concept-formation as the particular way beings with brains and nervous systems as complex as ours and configured as ours organize information about their surroundings, and concepts as the units of information which result. In other words, in the last analysis concept-formation is a physical-organic process, and a concept, a unit of information stored in a person's brain and given concrete expression by means of a term. In that case, every concept is indeed a concrete with essential attributes of its own, and so the concepts stored in my brain are capable of being instances of kinds, other instances of which are stored in your brain. This, of course, is admittedly still obscure - perhaps sufficiently so that many philosophers might still be tempted to eliminate concepts altogether and "make do with just words."⁴¹ We don't have to invoke mysterious storage capacities of our brains to talk about words, and they plainly are shared. But problems emerge as soon as we note that words and sentences are either physical inscriptions or spoken utterances - nothing more. It would be possible to set down on paper a set of sentences which constitute an exact replica of those Isaac Newton used when he outlined the theory of universal gravitation. If that piece of paper were then set on fire, one would not want to say that one had burned up and destroyed Newton's theory. A *theory* just is not that sort of thing; it consists, not of words but of propositions shared by all those in a scientific community, propositions built up out of concepts - as we put it above, stored as information in the brains of scientists. Making claims like these precise is one of the greatest challenges in the developing science of cognition. We are a long way from understanding the mechanisms involved (including whether *mechanism* is the right word; I suspect very strongly that it will turn out not to be). Cognitive science is today the scene of enormous intellectual energy but has yet to see its Newton, a person capable of unifying the neurologist's microdescription of brain events and the macrodescription of our mental life long favored by many philosophers and psychologists.⁴²

Be that as it may, the above speculations are quite in line with Rand's firm denial that objectivity requires omniscience. Objectivity, she says,

requires discovery by man - and cannot precede man's knowledge, i.e. cannot require omniscience. Man *cannot* know more than he has discovered - and he *may not* know less than the evidence indicates, if his concepts and definitions are to be objectively valid.⁴³

If we submit that this is just another way of saying that concept-formation is *fallible*, we are suddenly very much in line with virtually all major strains of the "modern philosophy" Rand so disdains; empirical fallibilism is just what we would expect by rejecting the view that concepts are closed repositories of unlimited information about existents. Given the limitations on any particular individuals, their capacities to form concepts that grasp the nature of existents will be partial at best. The growth of knowledge will boil down to

growth and refinement of our concepts (not just our definitions), including the occasional course-correction which will be required when, for example, a scientist realizes that a given concept his colleagues have been using is invalid (has no referents in reality).⁴⁴

VIII

At this point I would like to raise three objections which no doubt will have troubled a number of readers.

Objection One focuses on the ‘points of commonality’ which according to the above analysis constitute the essence of a given kind and asks, in effect, are they also concrete particulars, and if so, how can they possibly do the job essences were intended to do in the Aristotelian philosophy, which was to take us from a limited set of observed particulars to a universal generalization about all the members in that class of particulars. David Kelley frames the problem this way:

Even after I have grouped objects together on the basis of their similarity, I am still aware only of those particular objects, the two tables (say) that I happen to be looking at. My mode of awareness is still perceptual, and thus limited to the things that are present to my senses. But after I have formed the concept ‘table’, and begin using it in conceptual thought...my thought is about *all* tables, everywhere. That is what it means to say that a concept is universal. Now there is no way to understand one’s capacity for conceptual thought about a universal class of objects by simple extrapolation from the perception of a few similar objects; there is a difference in kind here.⁴⁵

In other words, according to this objection it makes no sense to assert that we can identify essences intrinsic to all concrete particulars of a kind through an examination of some of them; we have no other option except to recognize that similarities exist between concretes, subsume them under a concept on this basis which regards essences as defining characteristics and defining characteristics as irreducibly contextual. This defeats the idea that essences can be intrinsic to members of kinds.

Objection Two continues this same line of thought. Above we characterized gold’s most fundamental units as atoms with 79 protons in their nuclei. If this really is the essence of gold, the proposition *Gold has 79 protons in its nucleus* is a necessary truth. But we could discover on empirical grounds that this proposition is false, and hence obviously not necessarily true. As Saul Kripke remarks,

Gold apparently has the atomic number 79. Is it a necessary or a contingent property of gold that it has the atomic number 79? Certainly we could find out that we were mistaken. The whole theory of protons, of atomic numbers, the whole theory of molecular structure and of atomic structure, on which such views are based, could *all* turn out to be false. Certainly we didn’t know it from time immemorial. So in that sense, gold could turn out not to have atomic number 79.⁴⁶

In other words, again, aren't we entitled to question whether it is really the *essence* of gold to have 79 protons in its nucleus (have atomic number 79), or whether this is just the best identity criterion we have at present? And surely we cannot simply define 'gold' as 'the element with 79 protons in its nucleus'; to proceed this way will "identify" the essence of gold, but by stipulation. In that case, were someone to claim to have discovered a substance that behaves like gold in every respect except that it turns out not to have 79 protons in its nucleus, we would simply refuse to call it gold. This, though, would be cheating. Would it not be more reasonable to call the substance gold and admit that prior to the discovery we had not understood what gold was? This is a version of what many philosophers have called the skeptical induction: given that scientific inquiry is a dynamic process rather than a set of fixed, immutable results, postulating that the aim of science is to discover essences is futile since we cannot ever know whether we have "really" identified the essence of something.⁴⁷ This, too, defeats intrinsicism.

Objection Three is more general. Throughout the discussion above we treated units discovered by science, e.g., *atoms* of gold, as more fundamental than other potential choices, e.g., *coins* or *items of jewelry* made out of gold? What, however, gives us the right to regard the classificatory schemes of natural science as the only valid ones? Isn't it entirely arbitrary to privilege the natural scientist's perspective over possible alternatives such as that of the coin collector or the jeweler? The appropriateness of one's classificatory scheme depends on one's project or practice, so this argument goes; in that case, it makes little or no sense to claim that a particular classificatory scheme such as that of science is superior *tout court*. But since what are taken as units within one classificatory scheme will differ from that taken within another, we reach the result that if essential properties are taken as intrinsic to objects rather than embedded in our own projects, a substance such as gold will have *two* sets of mutually incompatible intrinsic properties! Since this is absurd, intrinsicism is now thrice defeated!

IX

These objections all raise substantial issues in ontology, epistemology, and philosophical method which go beyond what may reasonably be attempted in a modest effort such as this.⁴⁸ For now I can only indicate the outlines of my replies. **Objection One** and, to an only slightly lesser extent, **Objection Two**, seem to me to illustrate what we observed above, to wit, that Rand (and those following in her footsteps such as Kelley) have not really broken free of the Platonist-Cartesian *cul de sac* in either epistemology or methodology. Given these criteria, of course, the objection is absolutely decisive. It is clear, first of all, that if one begins with a strictly limited set of concrete particulars one cannot acquire the kind of universality or absolute certainty which are criteria for knowledge as Plato and Descartes conceived it. Rand no doubt realized this, but also saw the abandonment of the absoluteness of concepts as tantamount to a capitulation to irrationalism. But if we reject Platonist-Cartesian criteria, this fear becomes groundless. Rand's view of definitions as contextual was on the right track; she just didn't extend it far enough. Instead, she separated concepts from definitions and makes the latter "contextually absolute."⁴⁹ But this notion is self-contradictory: a definition is either contextual or absolute; it cannot be both at once. The same, I maintain, must be true of the products of concept-formation.

The correct move, I submit, is not to drop the demand for absoluteness of both definitions and concepts. Both should be regarded as fallible, malleable, and revisable.

Where does this leave the status of *essences*, which on the account being defended here are independent of concepts and are what concepts represent attempts to grasp? The implication of this account so far is that concepts are contextual and essences transcend our contexts; **Objection Two** draws a good bit of its force from the "gap" between the two which threatens to reintroduce a variety of familiar philosophical woes, the above skeptical induction being only the most obvious: given that what we *take* to be the essence of gold is embedded in the theoretical framework of modern chemistry and physics, and given that this framework could be discovered to be wrong, our entire concept of what gold is could be invalidated at some future date. To make this more concrete, one could argue that all the empirical findings on which our present position that having 79 protons in its nucleus constitutes the essence of gold could result from, say, a local deformation in the space-time continuum, so that having 79 protons in its nucleus is really a local phenomenon.⁵⁰

Three replies to **Objection Two** are in order, the first two methodological and the third ontological. **Reply One** begins by observing that natural kind terms like *gold* may be what Kripke, Putnam, and others have called *rigid designators*, terms which designate the same natural kind in all possible worlds.⁵¹ If this interpretation is correct, then essentialism follows, as Kripke and Putnam were able to show; in this case, given that gold is the element with 79 protons in its nucleus, while it will be possible to *imagine* circumstances in which samples of what is putatively gold are discovered which are not samples of an element with 79 protons in its nucleus, in *reality* such a discovery will be logically impossible. In other words, the hypothetical situation from with **Objection Two** derives its force is actually self-contradictory, and the self-contradiction is not merely formal but metaphysical - it describes not merely a logical but a metaphysical impossibility! In this case, mere conceivability establishes nothing except that the conceiver is intellectually confused. But this argument (like Kripke's) operates on the assumption that gold *really* is an element with 79 protons in its nucleus, that this *really* is the essence of gold. The necessary truth follows from this assumption and the claim that proper names and substance terms are rigid designators. For the sake of argument I will not assume the former; perhaps, like Kripke ponders above, it is logically possible, after all, that we might discover that the attribution of 'has 79 protons in its nucleus' is not a universally true description of gold. In that case, **Reply Two** emerges. It should be self-evident that the mere *possibility* of *p* is not a positive reason for *believing p*. Without such a check on our philosophical speculations, the skeptic can always play a game of "What if?" and raise questions which seem forceful because of their unanswerability. Sometimes it is worthwhile to be doubtful of doubt - as Peirce observed with his admonition that serious intellectual inquiry should be motivated by, as he put it, "real and living doubt" - i.e. doubt with some factual basis, such as an anomalous substance which shows all of the observed but none of the microphysical properties normally associated with gold.⁵² This further shifts the burden of argument from the essentialist to the skeptic by granting, in effect, that while we do not have *absolute certainty* that having 79 protons in its nucleus is the essence of gold, nor do we have any legitimate reason for casting doubt that our *belief*

that this is a crucial part of the essence of gold is a rational one, given all the available evidence. To put the matter a slightly different way, consider (1):

(1) That all known samples of gold are samples of an element with 79 protons in its nucleus is not a completely conclusive reason to believe that all gold has 79 protons in its nucleus.

(1) is just the upshot of what was just said, that we do not know *absolutely* that all gold has 79 protons in its nucleus. So (1) itself is almost certainly true - possibly even a necessary truth. At the same time, we should also be willing to grant (2):

(2) That all known samples of gold are samples of an element with 79 protons in its nucleus constitutes an excellent reason to believe that all gold has 79 protons in its nucleus.⁵³

In other words, the *certainty* of the kind of inference required to support the claim that having 79 protons in its nucleus is the essence of gold is not a necessary condition for its *rationality*. Since Rand would probably agree, this disposes of a good part of **Objection Two**.

Nevertheless, there is a **Reply Three**, which is ontological and should support the results just obtained. This reply notes that the *essence* of something is almost never going to be a single attribute such as 'has 79 protons in its nucleus' but rather a set or cluster of attributes. If we took this single predicate to be the sole component of the essence of gold, it would follow that we lived in total ignorance of the kind of thing gold is prior to the discovery of atomic numbers and of the microstructure of the atom. But this is absurd! Prior to these discoveries, gold was identified by numerous physical properties including its characteristic golden color, metallic lustre, malleability, chemical near-inertness, and so on. These were not all discovered at the same time. When it was discovered that gold was malleable and thus suited for minting coins or fashioning into jewelry, specific knowledge about gold was obtained. When its resistance to virtually every corrosive agent except *aqua regia* was discovered, more specific knowledge about the kind of thing gold was was obtained. The discovery of its properties at the atomic and subatomic levels can hence be viewed as an addition to an entire list of progressive discoveries. Our knowledge of the kind of thing gold is, is almost certainly still partial. But this is because we do not know all there is to know about the atom. And here the real substance of **Objection Two** becomes apparent; it makes the mistake of establishing omniscience as a criterion for knowledge and thus ignores one of Rand's own warnings, which is not to make omniscience a criterion of knowledge. Lack of omniscience does not entail skepticism, and it does not entail subjectivism. This, to my mind, removes the force of **Objection Two**.

Objection Three I will deal with more briefly. In effect it asks, what is so great about science or scientific discoveries as a basis for classifying fundamental units and identifying essences? Should not one's basis for classification depend on one's project, with natural science being just one project among many? On the face of it, of course there are other ways of individuating gold besides atoms, as we have noted in passing on more than one occasion. And these other bases of classification do derive from other projects. So it is worth distinguishing two kinds of projects: *epistemic* and *nonepistemic*. The former are

primarily engaged in discovering *knowledge* of one sort or another; the latter, at pursuits such as the aesthetic or the economic. Many philosophers have felt that science was the only legitimate epistemic pursuit, though this now seems dubious.⁵⁴ But be that as it may, epistemic pursuits aim at 'getting to the bottom of things' in ways that other projects do not, i.e., making efforts to identify the fundamental attributes or essential properties of the items their practitioners encounter. Nonepistemic pursuits have no such aim; so it should be unsurprising that while they may identify project-specific "units," these are not units in the fundamental sense the philosopher should be most interested in. It is worth reiterating that above we discovered that indivisibility is a criterion on "unithood" in this fundamental sense. One can divide a gold coin and still have two pieces immediately recognizable as fragments of gold (of a gold coin, in fact); one cannot split a gold atom and still have gold or anything recognizable as fragments of gold. This takes care of **Objection Three**.

X

A few concluding remarks are in order. I began this article by criticizing Rand's conception of units, and arrived at (a version of) the Aristotelian "intrinsicism" she rejected. Let me discuss one final objection which would be limited to the Objectivist camp. Objectivists might see the kind of position advocated here as just another effort to reduce the conceptual to the perceptual with the claim that essences exist in objects as sets of common attributes - points of commonality - between them which can be observed or discovered. This, the argument might go, would render concept-formation automatic, like perception. This fear, too, seems to me groundless. After all, one must still make an intellectual-cognitive effort to identify what it is that all existents of a kind have in common; with the objects of specialized scientific investigations such as the microstructure of the atom this may require considerable cognitive labor which is anything but automatic. Objectivists might also see these remarks as having sabotaged our conceptual faculty as badly as any "mainstream" philosopher would by insisting on the fallibility not merely of concept-formation but of the product as well; of saying, in effect, that since "any knowledge acquired by a *process* of consciousness is necessarily subjective [it] cannot correspond to the facts of reality, since it is '*processed* knowledge.'"⁵⁵ This does not follow, however. Empirical fallibilism recognizes that *because* we are creatures of a specific kind, with cognitive faculties of a specific kind, our knowledge is going to be incomplete, and incompleteness of knowledge, again, is not grounds for skepticism about knowledge. Given again that we are not omniscient, a reasonable epistemology could hardly conclude otherwise.

In the final analysis, I believe that Objectivist philosophers can learn from those they dismiss out of hand - very possibly more than the latter can learn from them, at least at present. For Rand's positive statements on such philosophical problems as whether concepts are "mental entities" and what it amounts to to say this, are usually primitive and equivocal as we have seen. At the same time, her dismissals of the various strains of "modern philosophy" such as pragmatism and linguistic analysis are frequently strawmanish. Linguistic analysis has its uses: if we do not get as clear as we can about what a philosophical question is asking or about how we are actually using (or should use) a philosophically pregnant term, errors and confusion are bound to creep into our discus-

sions sooner or later. To his credit, Kelley is taking this kind of tolerant approach. His work makes informed use of work by philosophers who are not Objectivists; he also addresses his work to the broader philosophical community, and not merely to other Objectivists. But he is almost alone, so far as I can tell; and his willingness to address non-Objectivists got him expelled from the "official" movement.⁵⁶ This is the sort of thing which has long contributed to Objectivism being dismissed as a kind of intellectual "cult".

Lest these remarks seem as unfair as if they came from a "mainstream" academic, let me temper them with some positive counterparts; for it seems to me that "mainstream" philosophy can learn something important from Objectivism. This is the example it can serve. Today's intellectual environment has long been carved up into ever narrower forms of hyperspecialization, a tendency abetted by the bureaucratic structure of the modern university, of academic villages, and university presses. Consequently many academic disciplines no longer have any intellectual points of contact with real and living problems or with one another. Claims presented in one discipline are often inconsistent with those presented in another. Respect for the ideal of rational inquiry as a pursuit of objective truth has now been eclipsed in several disciplines by sectarians of various sorts whose aim is to advance their sectarian agendas (radical feminists and "multiculturalists" are the most obvious of today's culprits, but they had plenty of Marxist and neo-Marxist predecessors). Rand was hardly the first to criticize modern philosophy on these various grounds. So whatever problems or errors we can pinpoint in analyzing its details, her philosophy still comes across as, in many respects, a breath of fresh air. It can still serve as an important example of a comprehensive systematic philosophy in the "grand tradition" which refuses to shy away from the Big Questions or exercise excessive caution to avoid stepping on the wrong toes. This may be due in part to the fact that Rand not only took a "classical" view of the aims of philosophy but did all her philosophical work outside the confines of the academic-bureaucratic superstructure. It is interesting that parallels can be drawn between many of Rand's arguments and procedures and those of traditional Aristotelians and Thomists,⁵⁷ suggesting that a close study of the latter might help improve the credibility and status of Rand's views, as well as reveal the shortcomings of those tendencies which have dominated since Hume, Kant, and Hegel. In this light, even if we cannot accept the entire package Ayn Rand had to offer, her philosophy nevertheless offers an alternative to the "mainstream" well worth investigating, debating, modifying where necessary, and developing further.⁵⁸

Notes

1. The following is, as far as I can tell, an exhaustive list of books and articles devoted exclusively or almost exclusively to one aspect or another Rand's epistemology which have appeared from publishers and periodicals not devoted almost exclusively to the promotion of Rand's ideas: David Kelley, "A Theory of Abstraction," *Cognition and Brain Theory* 7 (1984): 329-57; David Kelley, *The Evidence of the Senses: A Realist Theory of Perception* (Baton Rouge, LA: Louisiana State University Press, 1986); Douglas J. Den Uyl and Douglas B. Rasmussen, "Ayn Rand's Realism," in *The Philosophic Thought of Ayn Rand* (Urbana, IL: University of Illinois Press, 1984), pp.3-20; Wallace Matson, "Rand on Concepts," in *The Philosophic Thought of Ayn Rand*, pp.21-37; Robert Hollinger, "Ayn Rand's Epistemology in Historical Perspective," in *The Philosophic Thought of Ayn Rand*, pp.38-59. Cf. also Ronald E. Merrill, *The Ideas of Ayn Rand* (LaSalle, IL: Open Court, 1991), ch. 6; and of course Leonard Peikoff, *Objectivism: The Philosophy of Ayn Rand* (New York: Dutton, 1991), chs. 2-5.
2. Quoted by Leonard Peikoff, "Introduction," in Ayn Rand, *Philosophy: Who Needs It* (New York: New American Library, 1982), p.vii.
3. New York: New American Library, 1979; orig. pub. *The Objectivist*, July 1966 - February 1967. Recently reissued (New York: Meridian, 1990) as an expanded second edition highlighted by a lively *reparte* between Rand and a number of other philosophers, physicists, etc., identified only by such locutions as "Prof A," "Prof B," "Prof C," and so on. All references are to the second edition. Cited throughout as *IOE*.
4. *Ibid*, p.1.
5. See for example Leonard Peikoff's statement that his book "is written not for academics, but for human beings (including any academics who qualify)," *Objectivism*, p.xiv.
6. If I understand him correctly, this is one of the main thrusts of David Kelley's recent tract *Truth and Toleration* (New York: Institute for Objectivist Studies, 1990).
7. Rand, *IOE*, p.13. Italics in original.
8. *Ibid*, p.10.
9. *Ibid*, p.18. Italics in original.
10. *Ibid*, p.6. Italics in original.
11. *Ibid*, pp.6-7.
12. *Ibid*, p.7. Italics in original.
13. *Ibid*, p.52.

14. *Ibid*, p.53.

15. *Ibid*, p.233.

16. David Kelley, "A Theory of Abstraction," *op cit*, n. 1, p.332.

17. *IOE*, p.53.

18. *Ibid*, p.82.

19. *Ibid*, p.54.

20. Matson, "Rand on Concepts," *op cit*, n. 1, pp.28-29.

21. For details see *IOE*, ch. 2.

22. *Ibid*, p.18.

23. *Ibid*, p.147.

24. *Ibid*, pp.42-43.

25. *Ibid*, pp.65-66.

26. *Ibid*, p.67.

27. For the 'conceptual common denominator' see *Ibid*, ch. 3; for her epistemological 'razor' see p.72.

28. See her discussion of the distinction between the doctrines of the primacy of existence and the primacy of consciousness in her "The Metaphysical Versus the Man-Made," in *Philosophy: Who Needs It*, *op cit*, n. 3, pp.23-24. Her discussion defends the primacy of existence and holds the primacy of consciousness, which has been dominant throughout the history of Western thought, responsible for a variety of intellectual sins. David Kelley also offers a lucid discussion and defense of the primacy of existence in *The Evidence of the Senses*, ch. 1, *op cit*, n. 1.

29. Rand, *IOE*, p.79.

30. *Ibid*, p.95, p.101.

31. E.g., *Ibid*, p.155, p.173.

32. *Ibid*, p.78.

33. *Ibid*, p.266.

34. *Ibid*, p.43.

35. *Ibid*, p.40.

36. *Ibid*, pp.45-46.

37. *Ibid*, p.233.

38. *Ibid*, pp.153-54.

39. *Ibid*, p.155.

40. *Ibid*, p.157.

41. Wallace Matson, "Rand on Concepts," *op cit*, n. 1, p.30.

42. Though space limitations preclude developing the point, to my mind Roger W. Sperry, a neurobiologist with unusual sensitivity to matters philosophical, has made the most significant if not widely recognized strides toward such a unification. His articles are too numerous to cite individually, but I would suggest as the best places to begin "Mental Phenomena as Causal Determinants in Brain Function," in *Consciousness and the Brain*, eds. G. Globus, G. Maxwell, and I. Savodnik (New York: Plenum Press, 1976); "Changing Concepts of Consciousness and Free Will," *Perspectives in Biology and Medicine* 20 (1976), pp.9-19; "Mind-Brain Interaction: Mentalism, Yes; Dualism, No," *Neuroscience* 5 (1980), pp.195-206; and "Changed Concepts of Brain and Consciousness: Some Value Implications," *Zygon* 20 (1985), pp.41-57. Sperry's book *Science and Moral Priority* (New York: Greenwood/Praeger, 1985), is also worth a look.

43. Rand, *IOE*, p.46.

44. Example: Lavoisier's rejection of the concept *phlogiston*.

45. Kelley, "A Theory of Abstraction," p.346.

46. Saul Kripke, *Naming and Necessity* (Princeton: Princeton University Press, 1980), p.123.

47. Though not employing present terminology, a good discussion of the points at issues can be found in Robert Nola, "Paradigms Lost, or the World Regained - An Excursion into Realism and Idealism in Science," *Synthese* 45 (1980): 317-50.

48. My hope is to say more about them in a projected future article tentatively entitled "Ayn Rand's Theory of Concepts," to which the arguments of this paper may be viewed as a precursor.

49. Rand, *IOE*, p.47; emphasis removed.

50. For an example of such an argument see Dudley Shapere, "Reason, Reference, and the Quest for Knowledge," *Philosophy of Science* 49 (1982): 1-23.

51. Kripke, *Naming and Necessity*, *op cit*; Hilary Putnam, "The Meaning of 'Meaning'," in *Philosophical Papers, Vol. II* (Cambridge: Cambridge University Press, 1975), ch. 12. Cf. also Keith Donnellan, "Substance and Individuals" (abstract), *Journal of Philosophy* 70 (1973): 711-12; Nathan Salmon, *Reference and Essence* (Princeton: Princeton University Press, 1981); Jarrett Leplin, "Is Essentialism Unscientific?" *Philosophy of Science* 55 (1988): 493-510.

52. See C.S. Peirce, "The Fixation of Belief," in Justin Buchler, ed., *Philosophical Writings of Peirce* (New York: Dover Books, 1955), p.11. Cf. Also Peirce's critique of Cartesian methodological doubt in "Some Consequences of the Four Incapacities," *Ibid*, pp.228-29.

53. This paragraph owes a great deal to the discussion in David Stove, *The Rationality of Induction* (Oxford: Clarendon Press, 1986), pp.3-5.

54. For some reasons for thinking the pursuit of distinctively philosophical knowledge a viable epistemic project see my "Self-Referential Arguments in Philosophy," *Reason Papers* 16 (1991): 133-64.

55. Rand, *IOE*, p.87.

56. He tells his side of the story in *Truth and Toleration*, *op cit*, n. 6.

57. For details see Douglas Rasmussen and Douglas Den Uyl, "Ayn Rand's Realism," *op cit*, n. 1.

58. I am grateful to Gregory R. Johnson for detailed criticisms of an earlier version of this paper; space considerations have dictated that I have reserve my responses to several of his criticisms for my projected "Ayn Rand's Theory of Concepts." I would also like to thank Kelley Dean Jolley for checking my material on Plato's and Aristotle's epistemologies. Finally, section IX benefitted a great deal from my reading David Stove, *The Rationality of Induction*, *op cit*, n. 53, despite the fact that I was rather unkind to one of his earlier books (cf. my "Stove's Critique of 'Irrationalists'," *Metaphilosophy* 18 (1987): 149-60.