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A Re-examination of the Problem of Universals

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Introduction

I first encountered the problem of universals in an introductory philosophy course about five years ago. I was reading Plato's famous dialogue, *Phaedo,* in which an imprisoned Socrates debates the immortality of the soul with his followers. Curious to see how he would justify his confidence that the soul is immortal, I recall feeling puzzled and disappointed by his reasons; they were all predicated on Forms. As I read more Platonic dialogues, I saw the theory of Forms again and again but never felt that it was adequately explained. "Yes," I thought, "he says that there are things which exist outside of space and time called Forms, and seemingly every general term has one. They are perfect, eternal, unchanging, and make every particular thing in the world what it is." But I still felt confused. I did not understand what the theory of Forms was attempting to account for in the first place--even if I conceded that Forms exist, why would Plato even propose something so outlandish? What question did Forms answer? I did not know it until several years later, but the impetus for Plato's Forms was the problem of universals.

When the time came to write this project, I had several candidate topics in mind. Each was fascinating to me, and I believed that they all had the potential to be intellectually challenging, rewarding, and interesting to potential readers. However, none called to me nearly as much as the mysterious problem behind the theory of Forms. As I investigated further and realized that this underlying issue was the problem of universals, the original bemusement I had felt years earlier only grew. I was bombarded with terms like properties, one-over-many, resemblances, realism, nominalism, and of course, universals. It felt like the more I read, the less I understood. Compared with other potential topics, the problem of universals seemed inscrutable, and this apparently extraordinary difficulty provoked within me a determination to

understand it. I surmised that if I chose to undertake the problem of universals, it would force me to comprehend it, or at least develop a far deeper grasp than I had. Having now completed the project, I can say that to fully master such a vast and difficult problem is the work of a lifetime, but I nevertheless have come an enormous way since first being perplexed by *Phaedo.*

Herein, I try to present the problem of universals how I wish it was presented to me initially. My aims are to address what exactly the problem of universals is, to provide a comprehensive account of its major solutions, to evaluate those solutions, and to provide my own conclusions about the problem. I propose several theses about the problem of universals, though my primary assertion is not an original solution to the problem, but an insight about how philosophers have attempted to solve it in the past and how they should attempt to solve it differently going forward.

1. What is the Problem of Universals?

It is difficult to state what the problem of universals precisely is, as it encompasses a variety of inquiries in metaphysics and epistemology. However, in my experience, the best way to elucidate a philosophical problem is to walk through a line of thought in which it becomes apparent, rather than to present it outside of the context within which it naturally arises. The line of thinking that demonstrates the problem of universals is similar to those which bring about most other philosophical questions in that it stems from an attitude of wonder and curiosity toward aspects of our experience commonly taken for granted. That being said, a wondrous line of thought that gives rise to the problem of universals looks like the following:

We notice that there are different kinds of things in the world. All that exists is not identical, but rather entities are divided into categories such as living things and nonliving things,

thoughts and objects, matter and energy, beautiful things, just things, red things, blue things, and a seemingly countless number more. We reference these general categories in literally every sentence we utter--we often speak not of "this color" or "that color," but of redness and blueness; we often speak not of this animal and that animal, but of humans and dogs. In other words, we identify particular things as members of classes, each of which has many other members, and we talk about classes of things in general rather than about particular members.

But how do we account for this phenomenon of organization? That we are able to categorize things, some effortlessly and without conscious thought, requires explanation. First of all, how does one come to know that two things are of the same kind at all? The obvious answer for many things is the phenomenon of resemblance. For instance, I know that two particular trees, despite not being identical, are the same kind of thing--they are both trees--because I notice a strong resemblance between them. Prior to any knowledge about DNA or other scientific markers which might rigidly distinguish things like trees, it is reasonable to think that resemblance has been the intuitive basis of categorization for most of human history.

Now consider a class of things like squares. If I observe two separate drawings of squares, how do I know that they are both squares, as each is particular and therefore not completely identical to the other? You might say that that is a comically simple question--they are figures with four equal sides and four right angles, and anything with those qualities is a square. However, upon careful examination, it would become clear that no two examples of squares really have four perfectly equal sides and four perfect right angles.There are square figures which nearly perfectly resemble each other, but none that have four *perfectly* equal sides or *perfect* right angles. We are then back to resemblance, but one would certainly not say that

two squares are both squares because they resemble each other--it is because they truly share the common properties we just named. There seems to be a different principle of organization at play in this case, as we know what a square is despite those criteria not really existing anywhere in reality. What unites all squares seems to be something solely existing in our minds.

Furthermore, beyond the question of how we know things are of the same category, the nature of the general terms which describe them seems mysterious. To see what I mean, consider that if two trees are labelled "trees" by virtue of having "treeness," then what exactly is that treeness we are referring to? Moreover, figures that are labelled "squares" are labelled so by virtue of their "squareness," but what exactly is squareness? Terms such as these which indicate properties--squareness, treeness, redness, darkness, heaviness, etc.--are frequently used, but to what do they refer? You might say that treeness is what all trees have in common, but it seems that that cannot be right because treeness is singular, referring to one thing, while whatever it is that might be in every tree is as numerous as there are trees. Though it may sound bizarre, the questions we now face are whether or not something like "treeness" really exists, and what kind of existence it might have? How can it seemingly be one *treeness,* yet at the same time many, as it is in all trees at the same time?

Let us consolidate this line of thought into a more rigorous framework. It is clear that the world is organized into different classes of things. Everything in our experience is an individual entity such as this thought, this book, this computer, this tree, and this square, yet we group these particulars into categories denoted by their names. The principles by which things are organized, however, is one question: are things of the same kind united by resemblance, by an identical property in each, by mental processes, or by something else? The nature of general terms

themselves is another: what exactly are things like *treeness*, if they exist at all? These questions can further be divided into two aspects--epistemological and ontological. The epistemological side asks how exactly we know that two things are of the same kind, or how we know what an essence is. The ontological side asks what it is the existential nature of organizational criteria, such as essences, properties, or resemblances?--what kind of existences do they have?

The problem of universals is now evident and can be formulated succinctly: it is that the world seems to be organized, but it is very difficult to say how it is organized. By "world," I mean to encompass all of being--everything that exists from the physical, mental, and potentially abstract worlds. By "how," I mean the *way* that the world is organized, some possibilities being through resemblances, common essences, or the mental imposition of structure. The starting point is the acknowledgement of the apparent categorization of things, which may be provoked by the observation of resemblances, by realizing our mental and linguistic tendency to group things into classes, or simply by our basic intuition that some things are of the same kind and some are not. Incidentally, regarding the common name for this problem: "the problem of universals," the problem is not solely about "universals," but really it is about our above formulation. It is about how the world is structured, with the concept of "universals" being one particularly notable means of accounting for the apparent structure. As we will see, universals are but one of many potential accounts of the organization of reality.

2. The Major Positions

Philosophers have attempted to solve the problem of universals since at least the time of Plato (427-347 BC), and so as one would expect of such an antiquated problem, the number of existing solutions is vast. However, the most notable are regarded as foundational positions and

are worthy of the vast majority of our attention. In terms of the epistemological aspect of the question--how we know that, or if, the world is organized--the two main answers are characterized as top-down, rationalist, or deductive, and answers characterized as bottom-up, empirical, or inductive respectively. Ontologically, there are five fundamental views--realism, moderate realism, extreme nominalism, moderate nominalism, and family resemblance (also called the Wittgensteinian view). Resist any feelings of overwhelm at the sight of so many terms--we will get to know each of them intimately as we delve deeper into the problem. Let us now illustrate them at the outset.

For the sake of clarity and continuity, I will illustrate each of the major positions using the common example of beauty. When we say that something is beautiful, we say that it is like all the other things that are beautiful. They are all the same in at least one particular way--that they share beauty. So what unites the class of all beautiful things, and how do we know that they are united?

We will call the first epistemological view about the problem of universals the empiricist view. Consider that we may find both a piece of music and a human being beautiful. How do we explain the ability of the human mind to recognize beauty when it sees it in these different contexts, as well as its apparent ability to learn about beauty itself? The empiricist answer is that we learn about the organization of the world fundamentally from our sense-experience and then, secondarily, make inferences on the basis of perception. In essence, empiricism asserts that perception is paramount in the acquisition of knowledge, while logical reasoning is secondary or dependent on prior perceptions. Consider the application of this belief to the problem of universals. Say that one notices a particular resemblance between a piece of music and a human

being and wants to know what this resemblance means about these two entities--whether or not they have a common property. One then notices that this apparent commonality is unique--the resemblance between the piece and person is not that they are both interesting, nor is it that they are both appealing, but something else. A new term is needed to account for this particular kind of resemblance, and so the piece and person are said to both be "beautiful." In this case, the empiricist accounts for the recognition of beauty through sense-perception--one first notices the resemblance, then infers that there is something truly in common between the resembling entities.

This point of view is quite intuitively appealing. The notion that our minds are essentially blank slates, devoid of knowledge until encountering perceptual data about which we reason, seems to correspond with our experience. After all, do we know anything that we have not learned from experience? Where could the concepts we reason about have come from if they were not abstracted from objects of perception? Even facts which we know a priori, such as that the sun will rise tomorrow, is arguably only known on the basis of inference, having seen the sun rise everyday of our lives and reasoning that it will continue to do so. You might say that we know the sun will rise because fundamental laws of nature tell us that it will, but these fundamental laws too were just inferred from empirical observation. Given the appeal of empiricism, it is no wonder that many answers to epistemological questions related to the problem of universals are grounded in empiricist assumptions.

The alternative to empiricism is called rationalism, and it counters in several ways. Primarily, it responds to the empiricist by saying that the knowledge we possess outstrips what we could have learned from mere experience (Markie). For example, when one understands a

geometric theory, this knowledge cannot depend on perceived particulars, because there are no perfect geometric figures in the world, as we noted earlier about squares. The very objects of the field of geometry do not have physical existence, so how could one gain knowledge of those objects from experience? For another example, some rationalists argue that our knowledge of our native languages exceeds what we could have learned about them empirically, such as by hearing or reading them. In other words, to explain language acquisition, it seems we must concede that we have some kind of a priori knowledge of the grammatical principles which underride our languages; otherwise mastery of one's language is mysterious. This view is also compelling, as it illuminates the fact that some of our knowledge seems to not be based on experience. In terms of beauty, the rationalist view would be that we do not recognize beauty through perceiving its many instances and inferring that beauty exists, but rather we must have an innate or prior understanding of it in order to recognize it at all. By this account, we would not notice the common beauty between the piece and person if we did not have an inborn understanding, or capacity to understand, beauty.

Whether or not beauty is something we infer from experience or know prior to experience, there remains the question of its intrinsic nature. Is beauty something that exists objectively in beautiful objects, or is it merely a mental construction? This is a question about ontology--about the "realness" of classification. To elaborate on the five ontological positions we mentioned earlier, it is important for us to note that each view exists somewhere on a spectrum between extreme realism and extreme nominalism (with the Wittgensteinian view arguably standing aside). As is implied by the name, extreme realism stands on the end of the spectrum which maintains that the organization of the world is completely mind-independent, while

extreme nominalism stands on the end which maintains that there is no intrinsic organization at all.

Extreme realism was first asserted by Plato in several of his dialogues. His theory of Forms that we discussed earlier turns out to be basically synonymous with extreme realism; at the very least, the theory of Forms is its first iteration and the first major answer to the problem of universals overall. It is essentially the view that universal properties like beauty, treeness, or squareness are more real than particular objects. He arrives at this position through the same line of thought which brings about the problem of universals: things in the world resemble each other and seem to be intrinsically classified, but it is so difficult to answer what *makes* them resemble each other and be intrinsically classified. His solution is that a version of universals called Forms exist.

To elaborate on universals, they are a fundamentally different kind of thing than any physical object. They are hypothetical entities posited to account for how reality might have intrinsic structure. Universals resolve an inherent problem in accounting for the organization of the world--that properties like beauty are singular entities, though many things are beautiful, and thus there is a contradiction. Anything which is beautiful in a sense "has" beauty, though, again, beauty is but one thing. Universals resolve this problem by explaining how beauty can be present in many particular instances, and thus clarify how members of a class are all of the same kind.

In extreme, or Platonic, realism, as it is often called, Forms are universals which exist outside of space and time and manifest in the physical world through what is called "instantiation." With the example of beauty, this looks like every beautiful thing being beautiful by virtue of its instantiating the Form of beauty. Individual beautiful objects are said to relate to

the Form of beauty through "participation," where they somehow participate in the Form while merely being an imperfect reflection of it (Orilia). Moreover, extreme realism posits a dualistic ontology in which there is our world--the world of particulars which only imperfectly represent the real world--and the world of Forms, where universal entities exist eternally and give rise to the world we know. If this theory strikes you as bizarre or dubious, you are in good company. It should be obvious by now that I was initially unconvinced, to say the least, yet Plato's account does deserve at least some credence due to the profound influence it has had on all subsequent debate about the problem of universals.

An alternative view which maintains that there is intrinsic structure to the world is moderate realism. First introduced by Aristotle as a counter to Plato's Theory of Forms, moderate realism denies that properties exist abstractly--they are not in a non spatio-temporal realm, as Plato asserts--but they are also not merely mental, or meaningless names, as we will later see forms of nominalism assert. Rather, moderate realism asserts that universal properties do exist, but only when particular objects have those properties; the beautiful piece and the beautiful person both really have beauty, but only because that piece and that person are constructed exactly as they are. To the moderate realist, universal properties like beauty exist when particular things are configured in a particular way, such that they have the same "form" as all other members of their class. But this sense of form is very different from the extreme realist's Forms. Rather than particulars instantiating Forms which exist in another realm, the moderate realist's particulars get their identity from the presence of universals in them. The universals depend on particulars, rather than the reverse.

Just as realism has its extreme form, wherein universals are abstract entities on which particulars depend, nominalism too has a radical version. The medieval philosopher Roscelin of Compiegne (1050-1125) is commonly regarded as the founder of nominalism, and asserted a version of it more radical than the views of many his nominalist contemporaries, such as Abelard and William of Occam. Extreme nominalism is the hardly defensible position which claims that universal properties not only do not exist, but are truly meaningless names such that they are not even based on an underlying reality. By this dubious account, the beautiful piece and beautiful person are called beautiful by virtue of nothing other than being assigned the same name--there is no underlying organization As the name "nominal" (relating to "name") suggests, universal properties are merely names used to describe similar particulars, but that do not actually correspond to anything in reality. Rather, the term beauty represents a convenient linguistic tool which we use to categorize things, but the term itself does not actually refer to any real entity outside of human thought and perception.

Upon learning of extreme nominalism, one might counter with a myriad of different insights. From such criticisms, many forms of "moderate nominalism" have arisen. There are a vast number of positions which take the basic claims of nominalism--that there are no universals and that the world does not have intrinsic structure--to be true to some degree, but provide original theories or nuances to defend nominalism in light of realist criticisms. Of the many, I will discuss three particularly interesting cases which display the breadth of nominalist positions. These are concept nominalism (or conceptualism), trope theory, and resemblance nominalism.

Conceptualism, first of all, was proposed in its earliest form by William of Occam. It has been considered a kind of intermediate position between realism and nominalism as it asserts

that, in a sense, universals exist in the form of concepts, but also that everything in the

mind-independent world is particular. It essentially is the view that while there are no abstract

universals and thus no essentialistic organization of the world, the concepts in our minds which

represent properties are real and map onto reality quite closely. The beautiful piece and person

share no objective quality, but there is a mental abstraction of beauty shared between people that

is identical in each person's mind. In other words, concepts are universals, but do not correspond

with any non-mental entity. The conceptualist rejects that universals exist in the Platonic

abstract, and in the physical world, but not in our minds.

Trope theory, on the other hand, is a nominalist solution to the problem of universals

which holds that no entity is universal--not even concepts. Rather, the apparent existence of

universal properties is accounted for through the idea of tropes. According to this theory, every

characteristic of an object is a particular entity which appears identically in other contexts, but is

nevertheless a separate entity in each case. In the case of a beautiful piece and a beautiful person,

beauty is not a universal entity instantiated in each, but two different particular "beauties."

According to most trope theorists, everything that exists is a collection of tropes (Maurin). This

somewhat strange theory solves the problem of universals in that it accounts for the apparent

universality of properties by positing that each instantiation of a property is not an instantiation

but the existence of identical particulars.

It is worth noting that tropes are considered abstract, though the sense in which they are

is ambiguous and commonly contested. The two main proponents of trope theory, D. C. Williams

and Keith Campbell, claim that they are not immaterial somehow, abstract in the sense of being

nonphysical "magical feats of mind" (Maurin), but in the sense that they are only intelligible

through a kind of selective perception. In Campbell's words, tropes "occur in conjunction with many other instances of qualities," and can only be "brought before the mind…by a process of selection, of systematic setting aside, of these other qualities of which we are aware" (Maurin). This claim is part of the broader theory within which tropes were first introduced known as "bundle theory," which argues that everything that exists is ultimately a "bundle" of abstract particulars called tropes.

The third moderate nominalist position we will discuss is called resemblance nominalism. It was first advanced by philosophers H.H. Price and Rudolf Carnap, and more recently by Gonzalo Rodriguez-Pereyra. This view argues that two things do not resemble each other by virtue of their having a common characteristic, but rather they seem to have a common characteristic *because* they resemble each other. In other words, the beautiful piece and person are not beautiful because both have beauty, but because they resemble each other in a particular way. By this account, for two things to share a property, they must meet certain definite resemblance conditions. In order for the beautiful piece to be beautiful, it must resemble all other things called beautiful to a greater degree than any other set of things.Furthermore, properties are differentiated by different kinds of resemblance. Say that the beautiful piece is also slow--if it were heard after hearing a piece that was beautiful and fast, there would only be one kind of resemblance, that being the kind which is labelled beauty, but it would not have the resemblance that we call slowness. Therefore, resemblance nominalism accounts for the appearance of common properties by identifying them as discreet resemblances, not as entities in themselves.

We now arrive at the final ontological position we will discuss, namely what I call the Wittgensteinian, or family resemblance view. This view, outlined primarily in Wittgenstein's

Philosophical Investigations, is widely thought to have revolutionized the problem of universals by pointing out a mistake in the problem's very conception. If we consider what exactly nominalists and realists disagree about fundamentally, it is about whether the world has intrinsic or extrinsic structure, and whether or not universals exist. But Wittgenstein observed that the criteria for intrinsic organization to exist has an inherent flaw. This flaw is in the long held notion of essentialism: for a universal predication to be justified, its subjects must all share a single common feature--there must be something perfectly identical in each. For Wittgenstein, it is this criterion of essentialism which has prevented the problem of universals from ever being resolved. Wittgenstein realized that this single essential element is never adequately identified among class members--when we look for the beauty in the piece or the person, the common feature is never there. A resemblance might be there, but a concrete, identifiable, identical property eludes us. Because it is never found, the realist holds that it must exist to account for resemblances, be it in an abstract realm or in things, while the nominalist responds that it is not there at all, or is somehow in our minds. By the family resemblance account, the realist and nominalist are both right and both wrong.

To elaborate, let us look at Wittgenstein's observation in his own words:

Consider for example the proceedings that we call 'games.' I mean board-games, card-games, ball-games, Olympic games, and so on. What is common to them all--Don't say: 'There *must* be something common, or they would not be called 'games'--but *look* and *see* whether there is anything common to all.--For if you look at them you will not see something that is common to *all,* but similarities, relationships, and a whole series of them at that. To repeat: don't think, but look! [...] I can think of no better expression to characterize these similarities than 'family resemblances;" for the various resemblances between members of a family: build, features, colour of eyes, gait, temperament, etc. etc. overlap and criss-cross in the same way.--And I shall say: 'games' form a family. (Wittgenstein 31-32)

This truly is a novel resolution to the problem, and a striking one. Wittgenstein concludes that our failure to find a common property between members of the same class is not because it is so elusive or inscrutable, but because it is not there in the first place. Instead of accounting for the resemblances we notice in the world through the inference of a common feature, the resemblances simply need no further explanation.

Wittgenstein explains people's mistaken assumption that there must be universal properties with what he calls a "craving for generality." In his Blue and Brown Books, he explains that this craving for generality stems from two main human tendencies: "The tendency to look for something in common to all the entities which we commonly subsume under a general term," and "a tendency rooted in our usual forms of expression, to think that the man who has learnt to understand a general term, say, the term 'leaf,' has thereby come to possess a kind of general picture of a leaf, as opposed to pictures of particular leaves" (Wittgenstein 17-18). Both of these tendencies are clearly displayed by the aforementioned realist and nominalist positions. For example, each position has accounted for the resemblances in the world through positing either a universal or a specific criteria for class membership, i.e being a concept, or a specific degree of resemblance. No major position prior to Wittgenstein suggested that there is no single common element between all resemblant entities.

As I stated earlier, the nominalist and realist are simultaneously both right and wrong by the family resemblance view. The sense in which this is true is well explained by Renford Bambrough--a philosopher who advocates for Wittgenstein's solution. In his lecture entitled "Universals and Family Resemblances" he writes,

> The simple truth is that what games have in common is that they are games. The nominalist is obscurely aware of this, and by rejecting the realist's talk of transcendent, immanent, or subsistent forms or universals he shows his awareness. But by his

insistence that games have nothing in common except that they are called games he shows the obscurity of his awareness. The realist too is obscurely aware of it. By his talk of transcendent, immanent, or subsistent forms or universals he shows the obscurity of his awareness, But by his hostility to the nominalist's awareness that games have nothing in common except that they are called games he shows his awareness. [... Wittgenstein] asserts at one and the same time the realist's claim that there is an objective justification for the application of the word 'game' to games and the nominalist's claim that there is no element that is common to all games (Bambrough 216-217).

Bambrough points out that the realist and nominalist are both partially correct in that they reject the other's view (by nominalism, Bambrough refers to what we have called extreme nominalism). They are incorrect in their assertions, but show their "obscure awareness" of the family resemblance view through the vehement rejection of the opposite position.

For the sake of clarity, it is worth distinguishing between the Wittgensteinian view and resemblance nominalism, as they are ostensibly similar. Recall the claim of resemblance nominalism: when we speak of properties, what we are talking about is a degree of resemblance between objects, measured by certain resemblance conditions, wherein each member of a class resembles the other members of that class more than entities outside of that class. What is important is that there are specific resemblance conditions by virtue of which entities have the same property. The Wittgensteinian view, on the other hand, denies any specific criteria for class membership. Family resemblance cannot have specific criteria, as there need not be any common features between any two members of a class--there can be infinite possible members, all without a single common feature. Bambrough makes this point with the example of faces in the "Churchill family," writing "There could be in principle an infinite number of unmistakable Churchill faces which had no feature in common" (Bambrough 210). The resemblance nominalist does assert a common feature, though, that being the satisfaction of specific resemblance conditions.

Now that the major epistemological and ontological positions on the problem of universals have been laid out, let us clarify the relationship between these two kinds of views to create a unified picture of the responses to the problem. As ontology relates to being and the question of what is, and epistemology relates to knowledge and the question of how we know what is, these views tackle different aspects of the problem of universals.

I argue that every ontological view depends on an epistemological view for its foundation. To see that this is true, consider the Platonic realist position: there are non spatio-temporal entities on which particulars depend for their existence, each exemplifying the essence of their corresponding particulars. Plato rests this view on several epistemological assumptions. For instance, this view is supported by his belief that knowledge, as opposed to belief, must be unchanging and eternal, more like mental content than sensory objects. Moreover, he holds the rationalist view that knowledge is inborn--known independently of sense experience--and then is "recollected" through contact with the sensory world, rather than inferred--derived rather than induced. An extreme nominalist, by contrast, might argue that universal terms are merely meaningless names because if we look carefully at the sensory world, we notice that no two things are perfectly identical, so terms like redness, heaviness, or beauty, do not refer to any property in the world, let alone in an abstract realm. This view rests on an empiricist epistemology, as the knowledge that there are no universals arises from an absence of perceptual evidence. This being said, any justification for an ontological position implies an epistemology. Therefore, as we venture into evaluating the aforementioned positions, we will begin not by evaluating rationalism vs. empiricism, or any other epistemological view, but by determining our own epistemic standards with which we may judge which view is preferred.

3. Evaluation

Consider the array of beliefs you hold, ranging from those as significant as your basic moral principles to those as trivial as which television shows you think are best. Why do you hold these beliefs? Are they justified, and if they are, are the standards of justification convincing? Are they not so much justified by rational arguments as they are by intuition, or do you hold them, perhaps, simply because they are comforting or practical? Surely you will find that you answer these questions differently for different beliefs, and it is likely that for many of them, you are not aware of the answer at all. I propose this exercise to illustrate the complexity of human epistemology--it is difficult to know *how* we know what we know, and even more difficult to know if we really *know* at all.

You might say that in the discipline of philosophy, the question of epistemic standard is at least partially answered because philosophy rejects mere opinions and instead aspires to beliefs grounded on logic and reason. In other words, we might have certain beliefs for reasons other than their being the most rational--perhaps our lives are better if we live as if they are true--but then these views are not philosophically valid. This seems right to an extent, but then again, consider the range of epistemic standards throughout the history of philosophy. From the ancient skeptics who advocated the suspension of judgment to the pragmatists who conflated truth with practical benefit, philosophers have justified their beliefs on grounds other than simply what is most "rational." Given our awareness of the range of possibilities, we now face the daunting task of determining our own epistemic criteria. Should one's position on the problem of universals be determined solely by logic and reason, or are there alternative justifications?

I propose three criteria for determining the best resolution to the problem of universals: logical coherence, explanatory power, and economy. Beginning with logical coherence, I believe this is the least controversial criterion. The following simple argument justifies a standard of logical coherence: 1) If there is a fact of the matter about the organization of reality, we are interested in it regardless of what it is, even if it is somehow undesirable. 2) Our faculty of logic is a reliable standard for establishing truths about reality, meaning that when a certain belief violates our logic, such as 2+2=5, or I am awake and asleep at the same time in the same sense, those beliefs are not true. 3) Therefore, if we want to know the truth about the reality of universals, we should reject positions which are logically inconsistent.

By the second criterion--explanatory power--I mean that the right position on the problem of universals should explain as much of the problem as possible. To elaborate, the problem of universals arises from an inability to account for aspects of our experience. For example, we see that in common language, we use the same term for entities which, if scrutinized enough, do not seem to share a common element. The best position on a philosophical problem should actually account for the questions which gave rise to the problem in the first place--it should resolve it.

The third criterion--economy--is perhaps the most controversial and arguably subjective. It stands to reason that a theory may be free of logical holes and explain a great deal about our experience, but not be particularly parsimonious. To some, this might not be an issue, but I argue that ideally, a position should be as economical as possible. The principle reason for this criterion is that a lack of economy violates the second criterion of explanatory power, as by including many novel propositions in an explanation, one creates additional need for explanation; the very explanation provided itself needs to be justified, and so any explanatory power it offers is offset.

Additionally, this principle of economy--synonymous with Occam's razor--has been widely defended on aesthetic, empirical, and mathematical grounds. It is not necessary to expound the myriad of justifications for Occam's razor here; it suffices to say that it is undoubtedly a reasonable criterion for any philosophical theory.

Lastly, before applying these criteria to the positions we have discussed, it is important to clarify an aspect of the logical coherence condition. It seems that a proposition can be logically incoherent in two ways: internally or referentially. An internal contradiction is essentially what it is for a statement to not "make sense" a priori, an example being the proposition "this bachelor is married." The referential kind of incoherence is when a proposition does not "make sense" because it contradicts an assumption which is assumed to be true, an example being "this object falls when dropped because of God's will," when the theory of gravity is accepted as fact. The latter kind of incoherence is certainly less powerful than the former, as the former does not rest on any assumptions other than the validity of logic alone. Nevertheless, in the latter case, if the established facts which a theory contradicts are well justified, it can be a powerful criticism.

Let us begin with the first ontological position we discussed--extreme realism. To reiterate, extreme realism is the view that non spatio-temporal entities called Forms account for the resemblances we see in the world. There are various conceptions of extreme realism, but its primary version, and the one we will discuss, is originally Plato's. Forms have many characteristics such as "separateness," being distinct from the particulars which instantiate them, "purity," meaning they cannot have contrary properties, and several more, the different understandings of which create different logical consequences.

The literature on the logical merit of the Theory of Forms, or extreme realism, is singularly vast, so we are only able to skim the surface. That being said, I will go over some of the primary criticisms of the Theory of Forms in terms of its coherence. Its most famous critiques undoubtedly come from Plato himself in his dialogue *Parmenides,* and from his pupil, Aristotle. The first main criticism comes from *Parmenides*, wherein the titular interlocutor questions Socrates about how many different things have a Form. After all, it seems reasonable that a theory of this kind should set out the boundaries within which it applies, unless it applies to everything and every predicate and property imaginable has a Form. In the dialogue, Socrates is confident that major philosophical concepts such as beauty, justice, and goodness have Forms, but is unsure about whether natural kinds like human beings and water have them, and even more skeptical regarding things like mud and dirt. It seems a fairly arbitrary determination of what has a Form and what does not. Examples of beauty and justice resemble each other just as different humans, and even different examples of mud and dirt resemble each other. The resemblance needs explanation in all cases. If examples of beauty and justice resemble each other because they share a Form, then why do humans, water, and dirt resemble each other? Moreover, Plato seems to be inconsistent with what he considers to have a Form throughout his dialogues. For a couple examples, he discusses the Form of bees in the Meno, and famously, the Form of beds in the Republic (Rickless). His ascription of Form to these more ordinary entities in some dialogues and not in others creates a lack of clarity about which things extreme realism actually applies to.

Even more confusion is created by two characteristics of Forms established in the *Parmenides* called self-predication and separateness, or non-identity. The first feature essentially

mean that Forms are predicable of themselves, such that the Form of a Goodness itself is good, and the Form of Human is somehow human; separateness simply means that Forms are distinct from the particulars to which they give rise--they are not identical to any particular instantiation. These two properties of Forms inherently create tension, as Forms are at the same time predicable of themselves, yet different from any instantiation of them. (Rickless). In the case of beauty, for example, it would seem that the Form of Beauty is itself beautiful, and causes all beautiful things to have their beauty, but somehow has beauty differently than any particular beautiful thing. After all, Beauty is an abstract Form, and it is difficult to imagine what a Form is like at all, let alone how it could be beautiful. Additionally, there is a question of how something like the Form of Humanness could actually be human. It seems like the principles of self predication and separateness leave a great deal to be answered.

Finally, one of the most famous criticism of extreme realism is known as the third man argument. Originally coming from the *Parmenides*, but only being termed "third man" later by Aristotle, the argument essentially goes as follows: For any plurality of things, there is a Form of that plurality by virtue of which each member is what it is. For example, say you have particulars A, B, and C who all participate in the Form, F. It follows from the principle of self predication that F has F-ness, and so the members who now participate in that class are A, B, C, and what we will call F1. But then, there must be an F2, another Form, because nothing can be "self-partaking"--everything must be what it is by virtue of participating in some Form, so then A, B, C, and F1 all participate in F2. We can now see an infinite regress developing. If every Form is self predicating, then there must be another Form to give rise to it, and another, and another. This criticism is much like any "who moved the first mover?" kind of argument--how

can a Form have its properties unless it participates in another Form, and then, is there a first, foundational Form which gives rise to all others? This final criticism is a particularly strong objection to extreme realism, as it seems to show that these universal entities posited to explain the organization of the world are not logically possible--at least not as Plato conceives of them.

Pivoting to the explanatory power of extreme realism, we can say that the theory does technically explain a great deal about our experience. It accounts for the resemblances we see between things--the answer is that there is an underlying Form in which each participates. Auxiliary theories to extreme realism such as the theory of recollection also explain how we come to certain a priori knowledge, or what happens to the human soul after death. However, upon further examination it becomes clear that the theory does not explain much, and creates far more need for explanation than the problem of universals initially presents.

First of all, the aforementioned logical critiques also function as critiques of the theory's explanatory power. The questions of how many classes of things have a Form, how Forms can be predicated of themselves, and if there is an infinite regress of Forms, all stem from a lack of explanation from Plato. Forms are posited to explain the apparent organization of the world, but the Forms themselves require an immeasurable amount of additional explanation. It seems like there must be a different answer to why the world seems to be structured as it is, other than these strange, otherworldly concepts who themselves seem logically untenable.

Furthermore, Aristotle famously criticized the Theory of Forms for its lack of explanatory power in his *Metaphysics*. Aristotle writes, "Above all one might discuss the question of what on earth the Forms contribute to sensible things, either to those that are eternal or to those that come into being and cease to be. For they cause neither movement nor any

change in them" (Met. 991a8). Here, Aristotle points out that Forms do not seem to contribute much to our understanding of sensible things. They ostensibly explain why things are of the same kind in the first place, but do not explain anything about the objects beyond that. Forms do not account for the "movement nor any change" of particulars.

Finally, it should come as no surprise that extreme realism flagrantly fails to be parsimonious. The principle of parsimony, famously known as Occam's razor and captured by the phrase "entities should not be multiplied unnecessarily," essentially states that the best theory is the simplest one. Extreme realism goes in the opposite direction, explaining the phenomena of resemblance and categorization with hypothetical abstract Forms which we have already shown to be dubious. Extreme realism illustrates the antithesis of Occam's razor, positing new and confusing entities to explain phenomena which could certainly be explained in simpler terms. Aristotle too criticized the parsimony of extreme realism 1600 years prior to Occam, writing, "We ought, however, to suppose that there is one rather than many, and a finite rather than an infinite number. When the consequences of either assumption are the same, we should always assume that things are finite rather than infinite in number, since in things constituted by nature that which is finite and that which is better ought, if possible, to be present rather than the reverse" (Phys. 259a8).

It is significantly more difficult to find fault with our next position: moderate realism. First introduced by Aristotle and held in various forms by medieval philosophers such as Thomas Aquinas and Bonaventure, moderate realism maintains the "realism" that Plato asserted in that it believes that reality has intrinsic, mind-independent structure. It also maintains that there are universal entities which account for the resemblances we see in the world--the primary difference

is in how Aristotle conceives of these universal entities. As stated earlier, moderate realism claims that there are nonphysical entities which exist in every instance of some property, be it redness, beauty, etc. but these entities do not exist *independently* of the particulars they inhabit, but only come into existence when those particulars exist. In other words, there are not Forms of which each thing in our world is a mere imperfect instantiation, but instead, things in our world are organized by universal entities that come into being when matter is formed in a particular way.

For our purposes herein, we will admit that the logic of moderate realism is essentially sound. As Aristotle did with so many of Plato's beliefs, he agreed in part, yet recognized that much was missing--things were more complex than Plato claimed them to be. Moreover, unlike Plato, Aristotle was much more systematic in his philosophy, organizing his worldview into a unified, comprehensive set of coherent, interrelated concepts, e.g. the categories, the four causes, physics, virtue ethics, etc. Because any piece of Aristotle's philosophy is nested within the complex web of his entire system, to question the logic of any single position is often to question the validity of an intricate network of related premises. In the case of moderate realism, it is closely linked to Aristotle's notions of substance and the four causes, among others. As plunging into the nuances of moderate realism's conceptual foundations is a colossal undertaking, and not a necessary one for our purposes, we will accept that moderate realism is essentially logically coherent.

That being said, however, moderate realism is prone to criticism on the grounds of its explanatory power and parsimony. To first speak of its strengths, though, it does explain a great deal about our experience. It answers the question of what the resemblances in the world

mean--they mean that two identical-seeming things are really of the same kind, united by a universal entity. Moreover, moderate realism tells us what we mean when we use nouns like redness or beauty. These terms are not empty and meaningless, but actually have an existing referent. This is not to mention all that the auxiliary theories around moderate realism explain; the four causes for example, gives a far more complete account of what something "is" than Platonic Forms, which ultimately claim that what something really "is" is just an instantiation of a Form. Overall, moderate realism and its surrounding positions explain far more than extreme realism.

My primary criticism of the theory, though, is similar still to my primary criticism of the explanatory power and parsimony of extreme realism. It is that the introduction of universals into an ontology, whether they are Plato's Forms or Aristotle's more contingent entities, creates a greater need for explanation than is initially required by the phenomena they are posited to resolve. In action, this looks like us observing resemblances and wanting to understand what they mean about the structure of the world, so us positing the existence of entities which require additional explanation--we explained some phenomenon by introducing a new one which is equally if not more difficult to account for. Consider, for example, that Aristotle's universals are said not to be instantiated, but *particularized* and *multiplied* in various particulars. What exactly does this mean? How does the metaphysical substance that constitutes universals operate--is it governed by any laws like the laws which govern physical objects?--and what specifically does it mean for it to be "in" a particular? Moreover, why are there two basic kinds of entities in the first place--material and immaterial--and why is only one truly accessible to us while the other is only "intelligible?" Epistemically, how can any knowledge about these immaterial universals have a

foundation? These questions are not inconsequential, and all are invoked at the instant that an abstract object is introduced into an ontology. This seems to be a flaw with realism in general--realist theories understandably want to claim that the world has intrinsic structure, but explain how or why it does using Forms, universals, or other abstract objects which undermine theoretical economy.

Additionally, on the grounds of parsimony, Aristotle violates his own stated position on the matter in positing universals. Earlier, we saw that he writes, "We ought, however, to suppose that there is one rather than many, and a finite rather than an infinite number. When the consequences of either assumption are the same, we should always assume that things are finite rather than infinite in number." However, moderate realism posits "many" rather than "one," in claiming that there are universals in addition to particulars. Perhaps a way out of this apparent bind is through what Aristotle says in the following sentence: "in things constituted by nature that which is finite and that which is better ought, if possible, to be present rather than the reverse." Here, Aristotle writing "if possible" allows for the possibility of exceptions wherein theoretical economy may be violated or disregarded. Perhaps he believes that universals are absolutely necessary to account for the phenomenon of resemblance and thus for there to be intrinsic organization, and so the moderate realist position is an exception to Occam's razor. However, it is not clear why universals are necessary for the world to have intrinsic structure--for resemblances to reflect an underlying organization of the world.

Shifting now to nominalism, let us begin with its radical form. What we have called extreme nominalism--initially held by the medieval philosopher Roscelin of Compiegne--is the view that universal terms do not reflect an underlying reality, but are mere *flatus vocis* or

vocalizations. The resemblances we perceive are not caused by any intrinsic structure of the world, but are just that--resemblances. Moreover, extreme nominalism holds that there are no abstract universal entities and therefore everything that exists is particular. This view is often likened to predicate nominalism, which asserts that all members of a class of things really have in common is that the same predicate is customarily applied to them. For example, all cats in the world really have in common is that the predicate "is a cat" is applied to all of them--there is no objective basis for the classification.

Earlier we referred to extreme nominalism as hardly defensible, and now we will see the reasons why. Though Roscelin did have some supporters, his view was repudiated famously by Abelard and William of Occam who each developed their own contrasting versions of nominalism. To criticize extreme nominalism on the grounds of logical incoherence is not easy, however. Roscelin's contemporaries condemned his theory originally because it can be logically inferred from it that the holy trinity of Christianity is three separate and particular substances, rather than three instantiations of a single substance. We will not criticize extreme nominalism on theological grounds such as this, but its logic can still be questioned on the grounds of the simple fact that the members of at least some classes have real similarities, if not identical essences, which make them the same kind of thing. For example, modern scientific knowledge assures us that members of the same species share more than 99% of the same DNA and that all hydrogen atoms each have one proton. Undoubtedly, if there are objective facts at all, these are facts about the inherent structure of reality that are true independent of any mind. If resemblances were mere names, then surely as the ability to accurately observe the world improved due to scientific developments, no underlying structure would be found.

Here, one might argue that the supposedly real structures underlying resemblances do not count as real structures, as they are not truly identical. After all, even if two humans share 99.9% of the same DNA, their genetic makeup is not identical, and two hydrogen atoms might be travelling or rotating at different speeds, and so are not *really* identical. My response is that one must be careful with what one means by the term "identical." What does it actually mean for two things to be identical? Let us say that to be identical is to be indistinguishable in every way. The question that follows, then, is what are the different ways in which two things might be indistinguishable or distinguishable?--what aspects does an object have? If we consider things like humans and other large, complex objects, we quickly realize that to be truly identical in every way is impossible, or at least unlikely to the point of absurdity. Even something as tiny as a grain of sand will have significant chemical and structural differences when observed closely. Therefore, we should consider if the most irreducible things we know of can be the same in every way. Though atoms are not truly the most irreducible things, they are a good starting point, as they have far fewer ways to be different or similar than larger entities. One will find at this point that even if two atoms are indistinguishable in every way, they may still have technical differences in terms of their relational properties, such as position in space and time, or being numerically different, as there is simply more than one of them. I admit here that there are certain ways in which objects can never be indistinguishable, these being numerically, or spatio-temporally.

As to be the same in literally *every* way, including these aforementioned relational ways, is impossible, a reasonable criterion for identicality should be being indistinguishable in all ways aside from those we have mentioned. That being said, it has been shown that there are entities

which are indistinguishable in every way. For example, scientists have identified atoms as being identical molecularly, nuclearly, atomically, and electronically (Baird). Therefore, if my definition of identical is accepted, there are at least some things in the universe which are truly identical, rendering extreme nominalism false. Moreover, depending on the degree to which one accepts scientific consensus as true knowledge, the evidenced reality of identical things may be used to reject nominalist theories in general, as a major tenet of nominalism is the rejection of inherent structure in the universe.

Aside from questions of logic, the strongest critique of extreme nominalism is arguably its lack of explanatory power. Though extreme nominalism is technically an answer to the problem of universals, it is certainly the least informative. Unlike Plato's extreme realism which accounts for the phenomena of resemblance with Forms--entities which are superfluous and create many more questions than they answer--extreme nominalism seems to not address the apparent reasons for thinking there is intrinsic organization at all. It answers the problem of universals by not answering the problem at all, asserting that resemblances have no meaning and offering no further explanation.

To elaborate, there are a few clear ways in which extreme nominalism lacks explanatory power, and a few ways which may not be so obvious. To begin with the clear ways, it does not explain why certain things resemble each other, nor why concepts like squareness seem to universally apply, and thus why we are utterly convinced that some things are of the same kind. For example, with our example of the beautiful piece and beautiful person, extreme nominalism does not account for why we are so sure that these two very different things seem so similar in a particular way. If it is some mistake of the human mind which leads us to be profoundly

confused about the true nature of reality, then there is no explanation as to why our perceptions are so unreliable. The theory seems to claim that our classifications are, in reality, totally arbitrary, but fails to explain why they seem to be true to us, and thereby why we are so terribly mistaken.

Additionally, I suggest two more major problems created by extreme nominalism which it does not account for. First, there is the question resemblance in function, and how the seemingly common nature of certain entities is accounted for. Beyond objects appearing to have common properties such as beauty or redness, some objects also seem to share function or nature. For example, seeds which inevitably grow into the "same" kinds of trees certainly seem to share a common nature, as do animals which exhibit similar patterns of behavior, as do human beings in a myriad of ways. If all members of the classes seeds, animals, and humans are all fundamentally particular, then how does one account for not only the appearance of common properties in perception, but also common properties in function?

Second of all, there is an ethical concern which arises from extreme nominalism that is not accounted for. The problem is how to ground moral principles which are founded on a notion of common humanness. For example, the concept of human rights would seem to lose its very foundation if human beings were said to not actually be of the same kind. How could moral obligations to other people, justified by virtue of others' being human, remain justified if the fact of common humanity were stripped away? The same problem would arise for any general category wherein membership of that category grants certain dignities, such as being some kind of animal, or any conscious creature for that matter. If extreme nominalism were accepted, it would create a tremendous challenge to the foundations of many ethical paradigms.

This all being said, extreme nominalism can be credited for its parsimony. By contrast to extreme and moderate realism, both of which I criticized for lacking parsimony, extreme nominalism does succeed in being succinct and not "multiplying entities unnecessarily"--it does not posit any entities whose existences are either dubious or require a great deal of explanation themselves. However, I only commend the parsimony of extreme nominalism half-heartedly, both because of the overwhelming logical and explanatory deficiencies which far outweigh any due credit, as well as the fact that it is essentially too economical, failing to propose sufficient explanation for the phenomena it tries to account for. It should now be clear why extreme nominalism has been consistently rejected over the course of the last millennium.

Many moderate nominalist theories, on the other hand, are generally better justified than extreme nominalism. Earlier we discussed conceptualism, trope theory, and resemblance nominalism as a few key examples, though there are many more which fall under the moderate nominalism umbrella, such as predicate nominalism, ostrich nominalism, and class nominalism. Each is "moderate" by virtue of its being nominalistic in some sense, but conceding that tenets of realism are at least partly true in some way. Because the term "moderate nominalism" contains so many varied theories, we will proceed in evaluating it just as we proceeded when introducing it--by going through a few key examples which provide a sense of the general moderate nominalist intuitions.

Beginning with conceptualism, we saw that it is the view most closely associated with William of Occam, but that was held in various forms by countless later philosophers. The basic point of conceptualism is that there are no abstract universal entities--everything is particular and universals do not really exist--but in a certain sense, universals exist in the mind as concepts. By

Occam's theory, for example, we observe real similarities between particulars and then develop general concepts which amalgamate the similar qualities of these particulars. It is not a realist theory per se as it rejects universals as well as strict inherent structure in reality; however, it is difficult to reconcile how things are naturally similar and justifiably fall under the same concept, yet do not have anything which unifies them independent of our mental organization. Moreover, regarding the existential nature of concepts to Occam, philosopher Julius R. Weinberg writes, "The universal concept, then, is a representative rather than an existential being. It is *similar* to the external existents for which it naturally substitutes in thought, but numerically and ontologically different therefrom" (Weinberg 524). By this account, concepts exist merely as ideas in the mind, and are "similar" to all of their real referents, but somehow encapsulate them all.

Nothing seems to be logically incoherent in conceptualism. That is not to say that it is wholly right, but simply that whatever is wrong with it is not logical incoherence. The notion that we observe particulars which resemble each other and abstract general concepts from them does not contradict itself. Moveover, to its credit, it seems to closely mirror our experience. Certainly as children, most remember first learning what some particular thing "is" for the first time, and subsequently noticing particulars similar to it and understanding that they all are "the same" in a sense. Miraculously, we then have the ability to call to a mind a general image of this class of things, which we call a concept. The concepts described by conceptualism are phenomenologically immediate at every waking moment, and nothing in Occam's elaboration of concept formation or the existence of concepts contains internal contradictions.

Conceptualism certainly does lack explanatory power, however. That fact is due in large part to simply how old the theory is and how much our understanding of concepts and their formation has developed over time. Conceptualism as described by Occam, as well as by subsequent philosophers holding derivative views, does not provide a comprehensive account of the nature of concepts. By no means do I condemn conceptualism for having primitive explanatory power by comparison to modern theories of concepts--inquiry into their nature is a major subject in a variety of fields from cognitive psychology to neuroscience, yet they are still not fully understood. Nevertheless, the lack of explanatory power of conceptualism has been well documented by philosophers. For example, Weinberg later writes, "The connection between a universal concept and its supposita is explicitly described in terms suggesting the comparability of the two. Nevertheless, this alleged similarity is very obscure, and Ockham never satisfactorily elucidated it" (Weinberg 525). This insight about the incompleteness of Occam's analysis is an example of conceptualism simply being an antiquated theory, though one with much promise.

Even in its nascent form, however, conceptualism can still be credited with substantial explanatory power. It answers the problem of universals by arguing that resemblances have meaning--they reflect real similarities between particulars, though not a mind-independent structure to the world. It claims that our minds do impose structure on reality in a sense. It certainly does not argue this in as profound a way as Kant and his followers, for example, but is a kind of precursor to similar views. Unlike previous theories which mostly discuss the organization of the external world, conceptualism actually explains a mental phenomenon as well as its relationship to the external world. Conceptualism deserves a good deal of credit for

providing an account of the mental phenomena that have arguably led many to believe that there are abstract universals in the first place.

In terms of parsimony, it might be tempting to say that conceptualism multiples entities in positing concepts, but this is not the case. Conceptualism actually strikes a nice balance between the theoretical austerity of extreme nominalism and the theoretical superfluity of realism. This is clear because positing concepts is not an unnecessary multiplication of entities, but merely giving name to the mental phenomena we constantly experience. No one would deny that there are mental entities whose content is general classes, rather than particulars. Therefore, positing concepts is not positing something new at all, but simply concentrating on the importance of an already-known, but inadequately considered phenomenon to account for resemblance. Given all we have said, conceptualism so far seems to be the most preferable theory according to our criteria.

How does trope theory fare by comparison? To briefly reiterate, trope theory argues that resemblances are actually just tropes--abstract particulars which exactly resemble each other. To most trope theorists, everything that exists is ultimately a bundle of tropes. For example, everything that has beauty does not share in a universal beauty, as realists would argue, nor are they disconnected and arbitrarily labelled as extreme nominalists maintain; rather, every example of beauty is a particular thing--that particular beauty--which resembles every other beauty and forms a beauty "trope" (Maurin). Trope theories aspire to hold a middle ground between realism and nominalism wherein reality has intrinsic structure, but not due to universals instantiated by concrete particulars. Instead, the organization of the world is because it has tropes--just like

certain genres of literature which have recurring themes, motifs, and devices (tropes), reality itself has them.

However, beyond the assertions that there are tropes, that they account for resemblance, and that everything is a particular which is an instant of some trope, trope theorists do not agree about much. The primary advocates of trope theories have been philosophers D. C. Williams and Keith Campbell, though their theories differ in substantial ways, and other theorists and commentators on tropes have differed even more. Many responses to the problem of universals we have seen have various forms with significant differences, though it seems that beyond the few basic assertions I mentioned, trope theory does not have standard, widely-agreed-upon tenets on which it can be judged. For that reason, it is difficult to evaluate "trope theory," before clarifying which particular version of it is being evaluated. Therefore, rather than applying our criteria for the ideal position on the problem of universals to one form of trope theory, I will illustrate some of the ways trope theorists differ, and how these differences might lead trope theory to succeed or fail.

The primary grounds on which trope theorists differ are 1) whether tropes are properties or objects, 2) whether tropes are abstract or concrete, and 3) whether tropes are simple or complex. Regarding the first distinction, tropes have been likened to both objects and properties, often described as being both object and property somehow, or as being cleanly one or the other. Disagreement on the matter has often come down to how exactly one defines the terms property and object. Each might seem intuitively clear--objects are things themselves, while properties are *ways* those things are--but as is so often true in philosophy, the distinction is not obvious upon closer examination. In terms of logical coherence, one notable criticism leveraged against tropes

is from philosopher Jerrold Levinson, who denies tropes if they are defined as properties. He argues in his paper, "Why There Are No Tropes" that tropes cannot be properties because they are necessarily particular. Levinson distinguishes between properties and qualities, regarding properties as conditions objects may be in, and qualities as "*stuffs* of an abstract sort." He rejects that tropes can be either, writing, "In short, tropes cannot be particularized qualities since there arguably are not in the world qualities in addition to properties, and tropes cannot be particularized properties, since the notion of a particularized property, or condition, is simply an oxymoron. Hence there are no tropes" (Levinson 564). Here, he essentially claims that tropes cannot be properties or qualities because abstract entities do not exist, and because the notion of a "particularized condition," is contradictory because conditions are inherently general. This is simply one well-argued example of a potential incoherence in trope theory. Counter-arguments claim that tropes are somehow outside the categories of property and object, that they combine aspects of them to be in a category of their own (Maurin). I have found these arguments to be unconvincing, though for our purposes here, it is unnecessary to examine the matter in great detail.

The other two debates--abstract vs. concrete and simple vs. complex--are equally if not more hotly contested than the object vs. property distinction. Rather than searching for potential logical contradictions within these nuanced debates, let us go over an additional criticism that attacks the possibility of tropes fundamentally. This critique is essentially that the nature of tropes leads to an infinite regress through the following line of thought: every particular quality is its own trope--this beauty, this redness, this heat, this weight, etc. These particular tropes are part of the set of all beauty, redness, heat, and weight tropes. What distinguishes one set from

another is that all members of each set resemble each other to a greater degree than any member resembles something outside of the set. So if we take the example of beauty, say that there are three beautiful pieces of music, which we will call *a*, *b*, and *c*. Each has a beauty trope, called *Ba*, *Bb*, and *Bc*. But then, the resemblances that exist between the tropes themselves are, according to trope theory, reified into additional tropes. Therefore, given that all particulars are in the same trope-set if they resemble each other, and each of the "resemblance tropes" themselves resemble each other, now there are second order resemblance tropes, and then there will be third order and fourth order ones, etc, creating an infinite regress (Maurin). This insight seems to highlight a fundamental problem with tropes as a theory, and like with the critique of Jerrold Levinson, I have found responses to this infinite regress unconvincing.

Just as the logical coherence of trope theory is difficult to evaluate because trope theories have an extraordinary amount of variance and a lack of common presuppositions, their explanatory power and parsimony are difficult to evaluate for the same reasons. Regarding explanatory power, I would argue that trope theories at their best do have enormous explanatory power. They seem to answer most of the questions posed by the problem of universals, though they do of course create many questions of their own. Nevertheless, consider that tropes explain what resemblances mean, how classes are differentiated from one another, how things appear to be "one and many" at the same time, and even how tropes are apprehended by the mind, as trope theories are generally founded on empiricist epistemology. However, the controversies about tropes evidence the need for the central questions of trope theory to be further elaborated. Overall, trope theories have the potential for extraordinary explanatory power, though it will

arguably be difficult to credit them for this potential until it is realized in the form of a comprehensive, single theory.

Trope theories seem to be quite economical, as they only really posit the existence of one new entity: tropes. However, this parsimony is only ostensible, as scrutiny reveals tropes to be insufficient as a standalone concept. Much more theory needs to be introduced about them to adequately account for resemblance. For that reason, tropes are moderately parsimonious, as they technically posit only one new entity, though the need for further explanatory principles and supporting information is quickly realized.

Recall our final moderate nominalist position: resemblance nominalism. Advanced in its earliest forms by Rudolf Carnap and H.H. Price, and more recently by Gonzalo Rodriguez-Pereyra, resemblance nominalism essentially claims that resemblance is the organizing principle of reality--that the resemblances themselves that exist between things are what defines those things and makes them of the same intrinsic kind. Rather than some set of things being of the same kind because they share some intrinsic nature which *creates* the resemblance, it is the resemblances themselves which makes them of the same kind. By this ontology, the world is composed solely of particulars which resemble each other, and degrees of resemblance between things determine if they are of the same kind (Zimmerman). For example, all red things resemble each other far more than they resemble blue things, and vice versa; therefore, what makes some things red is that they resemble each other more than they resemble any other set of things, and what makes some things blue is that they resemble each other more than any other set of things. Moreover, resemblance nominalism holds that there are rigid resemblance conditions which objects must meet to be of the same kind--it is not enough for two

things to resemble each other, but they must resemble each other to a great and precisely-defined degree.

Resemblance nominalism has been critiqued in a number of ways. First of all, there is the fact that it seems to be contrary to some of our basic intuitions, primarily our intuition that things are the way they are not because they resemble anything else, but because they are a certain way intrinsically. In other words, it might seem absurd to think that two plants, for example, share a common nature because they resemble each other to a great extent. It seems intuitive to think that the resemblance is created by their being a certain way already. However, merely being counterintuitive does not mean a theory is wrong. Despite its being counterintuitive, Rodriguez-Pereyna goes so far as to confidently claim in his book, *Resemblance Nominalism,* that "Resemblance Nominalism not only gets a place in the Problem of Universals' 'grand final', it wins the contest" (Rodriguez-Pereyra 226).

Is resemblance nominalism really the ultimate solution to the problem of universals? It has faced criticism on the grounds of its logic for two primary reasons: 1) the problem of co-extension and 2) the problem of imperfect community. The problem of co-extension, well-acknowledged by Rodriguez-Pereyra himself, is the problem that resemblance nominalism seems to preclude the possibility of properties that are co-extensive--properties that always occur together. This is because of an apparent contradiction arising from the tenet of resemblance nominalism: "Resemblance Nominalism says that a particular that is F and G, is F by virtue of resembling all the F particulars and G by virtue of resembling all the G particulars" (Rodriguez-Pereyra 96). If we accept this principle, then how could two co-extensive properties be distinguished? They always exist together, and are defined solely by their resemblance with

other things that always exist together, so it seems that resemblance nominalism rules out the possibility of coextensive properties. Rodriguez-Pereyna attempts to resolve this issue by asserting that resemblance nominalism must accept "realism about possible worlds" (Rodriguez-Pereyra 99). By this, he means that there are possible realities wherein two properties, F and G, exist non-co-extensively, and therefore the previous definition is revised to include that a particular that is *F* is *F* by resembling all *possible* F particulars. This resolution is arguably successful, as it does resolve the purely logical problem inherent to resemblance nominalism. One merely has to accept that coextensive properties are only coextensive contingently--not necessarily--and could hypothetically occur non co-extensively.

The second criticism--the problem of imperfect community--has been leveraged primarily by the philosopher Nelson Goodman (MacBride). It is that particulars which meet necessary resemblance conditions for class membership do not necessarily share a common property. To further explain, resemblance nominalism claims that two particulars are of the same kind if they resemble each other to a certain extent, and being of the same kind implies having a common property. Consider three particulars: F, G, and H, where each has three properties. Say that F is white, soft, and round, G is black, hard, and round, and H is white, hard, and square. These particulars would certainly resemble each other, but there is not one single property common to all of them. Therefore, by the classification of resemblance nominalism, some things are of the same kind but do not share any common property across all cases. Resemblance nominalists have responded in various ways, though arguably the strongest response is the family resemblance position itself. A simple rejection of essentialism in favor of the view that class members need not share a common feature arguably salvages this view. Keep the problem of

imperfect community in mind when we arrive at the family resemblance view, as it arguably shows that it is not a problem at all.

Regarding its explanatory power, resemblance nominalism does answer the problem of universals. It does so in an original way, not employing tropes or the realist's universals; it simply claims that the resemblances themselves that we perceive are what organize things in the world, rather than merely being clues about how things really are. However, it lacks explanatory power for one main reason. This is that the notion of rigid resemblance conditions seems to need further explanation. Resemblance nominalism claims that things are of the same kind when they resemble each other to such and such a specific degree, but it remains to be answered how exactly something like resemblance is measured. For example, consider a color gradient where the exact boundaries where one color becomes another is not delineated. At the boundary between red and pink, for example, it seems that the shades in that area would resemble each other to great degrees but not exactly equally. In a case like this, how could one measure the specific *degree* of resemblance between shades to parse out which are red and which are pink? One might say that one could determine the particular frequency of light of each shade, but this would no longer be examining the degree of resemblance, but rather, examining matters of fact about those shades beyond their resemblance with one another. This being said, resemblance nominalism needs to clarify how resemblance can be measured, and consequently how rigid degrees of resemblance can work as a principle of organization.

Lastly, it is difficult to find fault with the parsimony of resemblance nominalism. It does not posit any new entities, but, like conceptualism, simply gives a larger explanatory role to an

already existing phenomenon--resemblance. For that reason, resemblance nominalism succeeds in this regard.

Finally, we arrive at Wittgenstein's theory of family resemblance. As a response to the problem of universals, family resemblance argues that things in the world are not organized by common features, but by "family resemblances," or "complicated networks of similarities overlapping and criss-crossing" (Wittgenstein 32). The basic insight is that in classes of things where no common essential feature can be found, it is because there is not one there at all and we are mistaken for looking. Rather than being united by an essence appearing in each, members of classes are united by family resemblances. Therefore, the family resemblance ontology looks like a world that is organized in a non-arbitrary way, but whose organization is in the form of overlapping resemblances between members of classes, rather than common uniting elements.

Though family resemblance certainly is a groundbreaking theory, it is not without strong opposition. In terms of logical criticism, the philosopher Leon Pompa puts forth a particularly strong critique in his essay entitled "Family Resemblance." In various ways, he argues that family resemblance does not work as a principle of organization because it alone cannot differentiate between categories. The two most convincing reasons he suggests are 1) there are overlapping resemblances between most all things, and it is only the prior concept of "family" which unites certain entities and excludes others, and 2) certain resemblances between things are more relevant to their classification than others--not all resemblances are equal.

Let us see how these arguments undermine the ability of family resemblance theory to differentiate concepts. Regarding the first, Pompa writes:

> For, in the case of the resemblances obtaining between members of a family, that is the family resemblances, the concept of family is independent of, and logically prior to, that of the resemblances between its members. [...] It thus becomes impossible to define a

family resemblance without first being able to define a family. Yet Wittgenstein's analogy has seemed to suggest that one can define families in terms of family resemblances. [...] For where in the case of the analogy with a family the relevant resemblances to be classed as family resemblances could not be established without reference to the logically prior concept of family, so in general the relevant resemblances which are to explain the application of the general term cannot be established without reference to some limiting criterion which again must be logically prior to those resemblances it is to help specify (Pompa 65).

Pompa states this objection in beautifully clear terms. It does seem right, if we consider that almost everything resembles every other thing in some way, that to classify certain entities with certain resemblances seems arbitrary. Consider the following example offered by Pompa: all human beings have some overlapping resemblances with all other human beings, so without some kind of "limiting criterion," all humans would be members of the same family and the term family would become "vacuous" (Pompa 64). I admit that Pompa's objection here, without adequate response, does show that the criss-crossing resemblances of family resemblance alone cannot differentiate concepts without the prior organizing principle of "family."

The second argument from Pompa--that certain resemblances are more relevant to classification than others--only strengthens the case against family resemblance. Pompa argues this point with the example of street-fighting and boxing being indistinguishable concepts if organized purely on the basis of resemblance. He writes, "For, on the account of overlapping resemblances which Wittgenstein gives, one could always find some such resemblance between any case of boxing and any case of street-fighting, so that it would then always be correct to describe any case of boxing as also a case of street-fighting" (Pompa 66). This observation simply reinforces the notion that some limiting criterion is needed to organize resemblances. It is unclear whether or not there is a resolution to this objection. A potential one I suggest is that family resemblance theory adopt an aspect of resemblance nominalism--the rigid degree of

resemblance--as a criterion for class membership. Perhaps this would look like a specific frequency of resemblances being necessary for class membership. For example, to modify Pompa's earlier example of all human beings being of the same family, we could instead say that families are differentiated by a specific frequency of resemblance. In other words, to be part of X family, members must have combinations of features $A, B, C,$ or D (though they all need not share any single feature in common) with greater frequency than any other set of people. However, the introduction of rigid resemblance conditions arguably changes the theory of family resemblance fundamentally, rendering it completely different from its original conception. All things considered, Pompa's criticism seems to be a major obstacle in the face of family resemblance.

In terms of explanatory power, family resemblance accomplishes an important task posed by the problem of universals in that it explains how the world can be organized without universals or essential properties of any kind. Moreover, it accounts for the mental phenomena involved in responding to the problem of universals. According to Wittgenstein, it is ultimately the "craving for generality" and "the tendency to look for something in common to all the entities which we commonly subsume under a general term" which lead our inquiries to err (Wittgenstein 17-18). However, family resemblance as outlined by Wittgenstein does fail to clarify an important aspect of any metaphysical theory: to which entities does it apply? Similarly to extreme realism where it was unclear if every general term had a Form, or if things like mud and dirt were excluded, nowhere in Wittgenstein's writings does he explicitly indicate which categories have family resemblances and which do not.

In Leon Pompa's paper, "Family Resemblance: A Reply," he clearly outlines the confusion surrounding the scope of family resemblance's application. The ambiguity is created by Wittgenstein choosing certain examples to illustrate family resemblance, including games, languages, and paces, but leaving it to the reader to infer what else family resemblance applies to. Pompa writes: "By explicitly introducing the term 'game' as an 'example' Wittgenstein suggests that it is being used to stand for this class. It seems probable, therefore, that the range of concepts to which the notion of family resemblance applies is commensurate with the class of concepts for which we can find no essence" (Pompa 349). Here, it seems that family resemblance only applies in cases where no essence can be found, but to have "where no essences can be found" as a rule seems uninformative. It is not as though essential qualities in classes are identified immediately--in cases where they arguably exist, such as natural kinds in the physical sciences, they require enormous work to discover. Does this rule suggest that we should assume family resemblance is the correct organizing principle until essences are found? The domain of family resemblance still needs clarification. Later, Pompa suggests that family resemblance is intended to apply much more broadly, writing "There is, in fact, nothing in these passages to suggest that [family resemblance] is not intended to apply to all non-technical terms" (Pompa 349). This second statement seems radical, as family resemblance certainly does not apply in some aforementioned cases, such as between hydrogen atoms or members of the same species. Perhaps it applies to anything nowadays referred to as nominal kinds--things which are defined conceptually rather than by intrinsic features. This possibility seems more likely, though it is not obvious which possibility is right.

To complete our evaluation of family resemblance, it is arguably the most economical theory we have encountered, possibly along with conceptualism. Family resemblance does not posit any new entities--it merely sheds light on the claim that essentialistic responses to the problem of universals are wrong (at least in many cases). The theory itself need not posit anything new to answer the problem of universals, and therefore is very successful in being parsimonious. The overall success of family resemblance then rests on whether or not Pompa's logical objections are adequately resolved, and if the domain within which it applies is clarified.

Conclusion

We now have a reasonably comprehensive overview of the problem of universals. We have discussed the problem itself, the two fundamental epistemic approaches to answering it, and the five main ontological positions which exist about it. We consolidated the positions by noting that the ontological views each presuppose one of the two epistemic positions to some degree. Then we evaluated each by the criteria of logical coherence, explanatory power, and parsimony. The question now is what can be gleaned from the work we have done--toward what conclusions does our evaluation point? Moreover, there is the lingering question of why the problem of universals is even important or relevant today, if it is at all. In these final pages, let us endeavor to answer these questions.

I propose that our work has yielded four conclusions: 1) the fundamental distinction between realism and nominalism is that realism asserts that reality has intrinsic structure, and nominalism asserts that reality has either no structure, or any structure there is is mentally imposed. 2) The fundamental claim of realism is largely right, but its insistence on positing abstract objects to justify itself is unnecessary. 3) No existing solution to the problem of

universals is true of every entity, and we are wrong to think that some theory may be able to describe the organization of all of reality. Rather, philosophical work on the problem of universals should focus on finding the organizing principles of specific domains, as the ineffable complexity of reality and its structure cannot be encapsulated by a single theory. 4) The problem of universals has varying degrees of importance depending on the domain in which it is applied--the organization of certain classes of things is trivial in comparison to others. Consequently, the most practical work on the problem of universals is to find the organizing principles of entities which are most important.

      Conclusion 1 is not so much a proposition as a clarified picture of the problem itself produced by the analysis of its solutions. It has become clear that realism and nominalism fundamentally differ in one way--realism asserts that reality has intrinsic structure while nominalism does not. But they differ on two more grounds which result from this basic difference. First, realism, in both the extreme form of Plato and the moderate form of Aristotle, asserts that there are abstract entities--universals--which cause some things to be of the same kind. In the Platonic case, these universals are Forms which manifest through instantiation in particulars, while in the Aristotelian case, universals exist only when and where particulars do, but both versions of realism nevertheless posit abstract objects to justify the apparent organization of the world. Nominalism, on the other hand, rejects abstract objects (except arguably in the case of trope theory, though the sense in which tropes are abstract is very different from the sense in which universals are). Second, realists account for the apparent organization of the world by positing properties--identical characteristics in different particulars--while nominalists argue that there are not properties but only resemblances. To put it

succinctly, realists believe that reality has intrinsic structure while nominalists believe there is no structure or only mind-dependent structure, realists believe that there are abstract objects while nominalists do not, and realists believe that resemblances are caused by properties while nominalists believe resemblances are just resemblances.

Conclusion 2 is about realism. If we start from conclusion 1, that realism essentially has three tenets, then I assert that tenet two is definitely wrong and tenets one and three are right in many cases. In other words, reality definitely does have intrinsic structure and there are things which share identical or nearly-identical properties, but there are no abstract objects. Most importantly, abstract objects are not necessary for there to be intrinsic structure or properties. Among the many inquiries captured in the term "problem of universals," the titular problem--the nature of universals--is arguably resolved. I assert that there simply are no universals in the metaphysical sense and that they are not necessary to account for what they are posited to account for. Abstract universals can be discarded for many reasons, including being wildly counterintuitive, as well as being unfalsifiable and unprovable, but no refutation is needed beyond Occam's razor--universals simply are unnecessary. The rejection of universals defined in this way does not preclude the possibility of things which inhabit the same explanatory role as universals such as concepts, for example. I only reject universals as they are typically defined.

The question of how exactly reality can have intrinsic structure without universals is a difficult one, but universals are nevertheless too costly a theoretical concession to make. One possible candidate is that there are already known identical entities, such as the atoms we discussed during our evaluation of extreme nominalism. Scientific work has shown that some things are absolutely indistinguishable in every way (every way aside from numerically and

spatio-temporally). This is one way which things can be said to have inherent structure. Another possibility is the application of a version of family resemblance to things in the world. This would look like certain entities having family resemblances with each other and thus being organized in a non-arbitrary way. To make this work, however, family resemblance would likely need to be modified to have more rigid resemblance conditions, as pointed out earlier by Pompa in his criticism of Wittgenstein. Regardless of how exactly the "intrinsic structure" tenet of realism is maintained, I argue that realism must stop clinging to universals as a means of explaining the organization of the world. Instead, realists should maintain that there is intrinsic structure while renouncing the belief that there are abstract objects.

I believe that conclusion 3 is undoubtedly the most important. To see that this is true, consider the process of evaluation to which we subjected the main positions on the problem of universals. Each position had its flaws, and whatever strengths a position had, it seemed to only have them within a specific domain. No position turned out to be applicable in all conceivable cases. For example, if we consider realism--particularly the intrinsic structure aspect of it--there are certainly many entities which are what they are regardless of any mental operations. But to say that *all entities* have intrinsic structure seems absurd. Concepts, for example, which have no concrete existence, such as beauty, justice, goodness, etc, certainly do not have intrinsic structure in the same way that natural kinds like atoms and biological organisms do. Consider now the example of family resemblance. Perhaps certain concepts like those we just mentioned do not have intrinsic structure in terms of essential features, but only have family resemblances. Family resemblance would then only apply to concepts and not concrete objects. It is easy to see how the domains within which theories apply can get increasingly granular. Say, for example, we find

that certain concepts are organized by family resemblances while some are totally uncircumscribed and extreme nominalism applies in some sense--there is no real basis for uniting particulars under this hypothetical concept.

We are already obscurely aware of the fact that we can only be realists, nominalists, or Wittgensteinians *about* things, and not in general. This has been made clear first from our discussions of the correct breadth of application for different theories. Obviously if the breadth of application of a theory is even a question, then the theory does not apply in every case. We saw this with Plato's discussion of which terms have Forms and with Pompa's questions about the limits of family resemblance. Moreover, the terms "natural kind" and "nominal kind" are ubiquitous in philosophical discourse. The distinction itself implies that all of being is neither wholly natural nor wholly nominal--neither realism nor nominalism is absolutely true--but rather they are true of different things in different ways.

I would further argue that it is probably the "craving for generality" and "contempt for the particular case" proposed by Wittgenstein which account for the misguided search for a universally applicable theory. Many philosophers who advocate for some response to the problem of universals seem to implicitly believe that their theory is the correct one, not acknowledging that it certainly only applies in certain cases. I propose a shift away from universal theories--a rejection of the craving for generality--and a move toward theories which apply in limited domains but fully respect the complexity of the entities they describe. Therefore, my solution to the problem of universals is not like any of the aforementioned; my solution is to say that there is no single correct solution to be found, but many, each modest in scope, together forming an account of the organization of reality that honors its unimaginable complexity.

Finally, the question of the importance and relevance of the problem of universals remains. Why, after all, did we examine this relatively esoteric philosophical problem that originated more than two millennia ago and reached its peak relevance in the middle ages? The answer is our 4th conclusion. Stemming from the 3rd, it is that the importance of the problem of universals depends on which class of things it is applied to, and as it regards certain things, the problem has significant consequences. As different kinds of entities are organized in different ways, the problem of universals is not a single problem, but many, and some entities are more important to us than others. Moreover, whether or not certain classes of things have intrinsic or extrinsic organization has very different ramifications than other classes of things. That being said, the problem of universals as a general philosophical topic, is not particularly important outside of being a fascinating intellectual problem and a major theme in the history of human thought. However, when applied to certain cases, the problem of universals has consequences which render it more important than a mere thought-exercise of armchair philosophers.

First of all, when we ask if something is "important," or if it "matters," we should clarify what exactly is meant by these terms. To be important generally means to have value of some kind, often practical value such as being beneficial to well-being or survival. Furthermore, whether or not something is considered to have value, practical or otherwise, is dependent on a variety of factors including cultural context, particular practical concerns, and what is considered valuable to the individuals making the judgement. It is largely for this basic reason that certain philosophical debates have risen and fallen in popularity over time, the problem of universals being no exception. So today, in the modern world, how do our solutions to the problem of universals affect things we value or that have practical ramifications?

There are several kinds of things whose intrinsic realness or lack thereof is important to us. First, there is the example of humanness which we mentioned earlier when evaluating extreme nominalism. Certainly, whether we are all intrinsically the same kind of thing--human beings--has a significant impact on our ethics. Moral principles such as basic human rights are grounded on us all being human, and so having such a fact be well-founded is vital--it is hard to imagine not being realists about human beings. As we stated earlier, these moral implications could be extended to any conscious beings whose nature--whose objectively being what they are--grants them certain dignities. Moreover, the problem of universals certainly matters for many entities in the purview of the natural sciences. For a well-established example, the classification of the periodic table of elements illustrates categories whose intrinsic realness matters. If carbon being carbon was contingent on the mind, that would curtail our fundamental understanding of the world and radically alter any field predicated on natural elements, such as carbon, being of a predictable, intrinsic, mind-independent nature.

One might reasonably say that these cases are obviously settled. No one questions whether certain natural classes in the sciences or our common humanness are nominal kinds. However, there are examples which are also consequential and not yet settled, such as certain kinds of diseases, and mental disorders in particular. There has been a long-raging debate in psychiatry and the surrounding psychological literature about whether or not mental disorders are "real," in that they are intrinsically defined entities or arbitrarily defined constructions. Whether one is a realist, nominalist, or Wittgensteinian about mental disorders has significant ramifications. One's position affects how one conceives of those afflicted--how they ascribe agency and responsibility to them, how much understanding or disregard they show to them, etc.

It also affects the entire system which tries to treat such disorders, including the scientific research done into psychiatric drugs. To see that this is the case, consider that if the "medical model" of mental disorders is accepted, which essentially states that they are intrinsically real, research funding would move to prioritize the development of psychiatric or otherwise medical treatments. If the contrary is accepted--that mental disorders are not real but mere ways of considering natural human experiences--then funding would prioritize other non-medical forms of treatment, or attempts would be made to dissolve treatment and the categorization of mental disorders entirely. Furthermore, in keeping with my proposal for increased specificity in future inquiry, different mental disorders are structured differently. For a couple examples, disorders such as mental retardation and schizophrenia are widely considered real, mind-independent entities, while others are far more controversial.

Additionally, the concepts of race and gender are particularly topical in contemporary discourse, and the extent to which they are real or nominal has been a major point of debate. The extent to which one is a realist about gender--believing that it is essentially synonymous with biological sex--or a nominalist about it, believing that it is somehow constructed or mind-dependent, largely determines one's position on various cultural and political issues regarding gender identity. Moreover, one's being a realist or nominalist about race too affects one's standpoint on race-related issues. It is easy to see, then, how one's beliefs about the organization of reality can have wide-reaching practical implications. Therefore, the problem of universals in the most general sense has fallen out of relevance, but its applications to entities of particular value is a necessary and worthwhile endeavor.

Going forward, I propose that philosophical work in the problem of universals give up the quest for a universally applicable theory. The inadequacy of existing theories points to the profound complexity of being--our physical and conceptual worlds--and leads to the reasonable conclusion that no single theory could comprehensively describe the structure of every class of things. Rather, philosophers should abjure their "contempt for the particular case" and investigate the organizing principles of more specific domains, particularly those of maximal consequence and importance. What will ultimately be found is surely that, of some things, a modified form of realism is true, where there is intrinsic structure without abstract universals. For others, perhaps extreme nominalism will be vindicated and no valid reason will be found for classifying them together. Various forms of moderate nominalism and family resemblance will also likely find applications. What remains to be seen is how these positions will be further modified and adjusted to account for ever-more specific categories, and what new theories will be posited to the same end. The new picture of the problem of universals should look like a myriad of "realisms" and "nominalisms" each applying in specific domains, thoroughly accounting for the unique structure of each class. Then, the mystery of how one can be many and many can be one will finally be resolved.

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