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A Psychological Approach to the Special Composition Question

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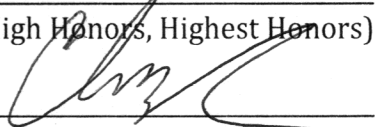
A Psychological Approach to the Special Composition Question

A thesis submitted in partial fulfillment of the requirement
for the degree of Bachelor of Arts in Philosophy from
The College of William and Mary

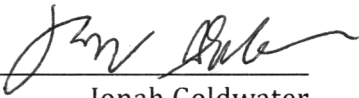
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Accepted for Honors
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Abstract

When does composition occur? There are historical accounts that claim there are no composite objects, or that composite objects can consist of any given objects. These views fail to preserve our intuitions and warrant a different understanding of the term “object”. I present a psychological approach wherein observers ascribe objecthood to an arrangement in the form of a secondary quality. This subjective behavior can be traced back to the development of our perceptual capacities in our natural history.

Chapter 1- Composition and Competing Claims:

1.1- Introduction to Composition:

As our understanding of composition has grown, the sensible world has revealed itself to be the sum of numerous microscopic particles. Our scientific inquiries have led us to see the world around us in terms of increasingly smaller pieces as we continue our search for the most fundamental parts. When guided by our intuition alone, we all feel compelled to believe that there exist ordinary objects such as tables and chairs. Yet how are we to reconcile these intuitions with our evidence of the particles underlying supposed composite objects? We know that there are particles making up what we call a “table”. But does a table have any

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ontological value, or is it merely an arbitrary label we've applied to those particles? Despite our uncertainties regarding objecthood in this fragmented environment, we remain drawn to our intuitions that composite objects exist. Why do we have such intuitions, and how do they shape the way we look at the world? In this thesis I present my own view on composite objects that looks to preserve these intuitions by taking an approach that integrates a psychological framework. Through an account of the evolutionary history of our perceptions tendencies, I hope to make clear the grand importance of psychological processes in influencing our recognition of objects. The goal of this first chapter will be to provide context to my view through an explanation of the special composition question and its historical approaches.

Perhaps the best place to begin is with the philosophical issue to be discussed. The fundamental question that we seek to answer is "When do some number of x's compose a y?" That is to say, when (if ever) should we consider something to be a part of a greater whole? This line of inquiry has come to be known as the special composition question (van Inwagen 21). This question is fundamental to most discussions of mereology, the theory of part-whole relationships.

When we look to answer this question of composition, we may often make reference to "simples". In theory, there may exist these mereological simples that are the most fundamental particles possible. Because they have no proper parts, they serve as an important theoretical tool for our discussion. Should we choose to work under the assumption that simples do in fact exist, we must imagine that everything around us is made up of them at some level. Of course, not everyone is

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committed to the existence of these simples; for the purposes of our discussion outside of nihilism, it should be satisfactory to make reference to objects or x's instead. With some number of x's underlying all of creation, we can start to imagine the issue that is at hand; how should we think of these things we interact with every day, such as tables and chairs, given that there is a truer understanding of their nature hidden beneath the surface? This is precisely the sort of problem that arises when we deal with the special composition question.

1.2- Three Schools of Thought:

Fortunately, there has been no shortage of discussion on composition. Although there have been many different answers to this question in the past, these answers can generally be broken down into a few broader schools of thought: nihilism and universalism are the extreme views, followed by the many moderate views in between. Each has their own approach to the existence or non-existence of objects.

The first of these approaches is mereological nihilism. Nihilists claim that composition *never* occurs. There are no objects other than simples, the most fundamental material units of the universe. Where your average non-philosopher would see a chair or a table, a nihilist would see only some arrangement of partless simples. Furthermore, these nihilists argue that the average person is constantly making errors when they identify objects. This means that there are no tables, chairs, or other composite objects, even if we might think that there are. Our intuitions are not to be trusted, because they will often deceive us into seeing

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arrangements of simples as objects, rather than the truer underlying simples.

A bit of clarification with the nihilist approach is actually quite important to my own view. If a nihilist says “there is no such thing as a chair”, they do not mean to say that we are hallucinating whenever we take a seat. They would not argue that the thing we call a chair is insubstantial. In fact, the nihilist is quite adamant that there is an underlying structure present in this observed stimulus. The point that these mereological nihilists want to get across is that this supposed “chair” is nothing more than an arrangement of simples. There simply isn’t any reason to think of these simples as parts of a whole that belong together. Perhaps this is reasonable to an extent; certainly there does not seem to be anything inherently special about “simples arranged chair-wise”. At a glance, these arrangements lack the metaphysical glue they need to be innately related to one another as parts. As I will discuss at length in Chapters 3 and 4, this metaphysical glue is found not in the arrangement itself, but in the observer. Observers are vital to the existence of composite objects, because they are the only things capable of exerting any perceptual or interpretive forces on the world. The universe is a chaotic flurry of simples, and it is only because observers prioritize certain patterns of these simples that there is any need to reference simples together.

One major advantage to nihilism is its *ideological simplicity*. Nihilists do not need to posit circumstances or conditions that allow for composition, because they deny that composition ever occurs. This exemption results in a mereological account that is relatively easy to comprehend. Furthermore, nihilism seems to reflect the discoveries physicists have made over the years; that there are miniscule particles

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underlying the material world around us.

Nihilism is also capable of avoiding certain puzzles that can prove difficult for other views (generally moderate ones). Gabriele Contessa outlines a number of these puzzles that nihilists manage to successfully escape (2014, 219). One such puzzle is that of “the Statue and the Clay”. If we were to take a lump of clay at time A, and mold it such that there is a statue at time B, has a new object come into existence from the same constituent matter? And does the lump of clay still exist, or has it been destroyed and replaced by the statue in some way? Nihilists can simply state that the “statue” is really just a rearrangement of the same miniscule objects that were previously arranged lump-wise. Nothing has been created or destroyed; merely rearranged.

“The Problem of the Many” is another such puzzle. There are instances we can think of wherein the boundaries of an object are somewhat vague, such as with clouds. A cloud consists of some arrangement of water droplets, but once you get away from the cloud’s core, it starts to become difficult to ascertain which water droplets count as being part of the cloud. When we consider the core of a cloud alongside any particular simples along this vague periphery, the result does still seem to be a cloud with all of the typical cloud-like properties (i.e. gaseous, wet). But, if this is the case, then it would seem that there are actually a vast number of clouds consisting of the various possible combinations among the cloud’s core and peripheral simples. A single cloud would potentially coincide with thousands of smaller clouds, which is not something we generally find intuitive; how can so many objects exist in the same matter? Nihilists don’t have to deal with this problem at all,

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because there is no need to reference something like a “cloud”, only the simples in various arrangements.

There is also the question of the degree to which individual simples are essential to an object. If we were to remove a single simple from an apple, would we still have an apple? Generally we are inclined to think that the apple remains. And the same is true if we remove a second simple; the change is practically unnoticeable, so surely the apple still exists. But if we continue removing simples in this same pattern, *eventually* we'd end up with something unlike an apple (perhaps just a small stem). At what point should we draw the line and say that the existence of the apple has been disrupted? Again, this question is a non-issue for nihilists, because there was never an apple to begin with.

Despite its simplicity and its ability to sidestep common problems, there are still reasons to find mereological nihilism unattractive. The most immediate problem with nihilism is its elimination of “ordinary objects” from our ontology. Nihilists deny the existence of composite objects that we are quite familiar with, such as the usual tables and chairs. For many philosophers (myself included) this represents a breach of our intuitions that condemns any purely nihilist view. Such people would say that we have far more confidence in our intuitions about objects than we do in philosophical theories. However, not everyone is so convinced that these intuitions are worth preserving. John Tallant would refer to some such people as “extreme nihilists”, because they do not even see the need to refer to ordinary objects in terms of their arrangement. (Tallant 1512). Against those willing to bite

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this bullet and give up on ordinary objects, there are a number of other potential objections.

One threat to nihilism comes from its reliance on simples. Nihilists paint a picture of the universe that has a smallest possible building block. These building blocks are generally thought of in terms of miniscule particles akin to atoms. But there is also the possibility that there is no smallest particle, or that we shouldn't even think of these building blocks in terms of particles. We can imagine the universe instead consisting of a sort of "gunk" that is infinitely divisible. Each of the gunk's parts has further parts, and those parts have their own parts in turn, so on and so forth, infinitely. Nihilists want to say that nothing exists except the most fundamental, but it could potentially be the case that there is no end point in the search for simples, and that every object has proper parts (Sider 31).

Another objection that has been raised against nihilism comes from a Cartesian sort of approach. Descartes' famous Cogito argument posits that I can be sure of my own existence, because for me to even consider the matter would mean that there is something undertaking this consideration. This argument is widely accepted, with our own existence serving as one of the few certainties in the face of extreme skepticism. Given this argument, one challenge against nihilism is to say that I exist, and I am a composite object, therefore a composite object exists. As Ted Sider points out, this type of objection relies on the premise I am, in fact, a composite object. Perhaps such a view would then be more appealing to those with physicalist inclinations (Sider 29).

For my own part, I find these objections to be serious concerns for nihilism.

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This is not to say that I entirely reject nihilism, however. In fact, as I will go on to describe in Chapter 2, my own view closely resembles nihilism in some respects. Nihilists have the advantage of not requiring some fabled “ontological list” of the objects that actually exist (unless, of course, that list is limited to simples alone). Arrangements of simples can be said to exist, but those arrangements lack any ontological value in their own right; that value is instead reducible to that of the fundamental parts within the arrangement.

On the other end of the spectrum is the mereological universalist. Universalists claim that any collection of x’s composes an object. On the one hand, this view allows for the preservation of some of our intuitions. Universalists, for example, can allow for the existence of a composite object called a chair, or an apple, without needing to reference it merely as an arrangement. The drawback to this, however, is that there are some less than intuitive consequences that arise as a result. Universalists are committed to saying that any combination of x’s composes a y, no matter how seemingly ridiculous. In addition to chairs and apples, universalists also accept unusual combinations such as the moon and the sun, or the Eiffel Tower plus the Statue of liberty. These objects can be incredibly disjointed and outlandish; universalists allow for an object composed of the front end of a horse and every pumpkin pie on earth. But no matter how distant these pieces may be, there is a single resulting object composed of those pieces. Why should such a view be taken seriously?

Universalism’s appeal is actually quite similar to nihilism’s in a lot of ways. This is perhaps because of universalism’s role as a logical counterpart to nihilism. If

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nihilists claim that composition never occurs under any circumstance, then universalists claim that composition always occurs, and under any given circumstances. The resulting approach for universalists has that similar degree of conceptual simplicity; it gives a flat answer to the special composition question without needing to add much complexity to the issue.

Universalists manage to dodge many of the same puzzles as the nihilists. In our “Problem of the Many”, for instance, a universalist would probably be okay with allowing for a near infinite number of composite objects to exist within something like a cloud. If *any* given x’s compose an object, then any of the arrangements we can make based on given x’s in a cloud should also compose an object. This being said, universalism might not tackle all of these puzzles with the same ease as nihilism. In the puzzle of “the Statue and the Clay”, universalism does not by itself give some sort of explanation as to relation between the clay and the statue, and why one seems to go out of existence and to become replaced by the other. Nihilists hardly even need to acknowledge such questions, because there are no composite objects being created or destroyed.

The absurdities that universalists allow in their ontology often do more than enough to deter many philosophers, but there are still plenty who are willing to obstinately support the view. For those inclined to argue, Peter van Inwagen makes a more targeted case against universalism on the basis of inconsistencies regarding continued identity and the participation of the same x’s in multiple objects across time. Picture for a moment the atoms that make up a human being. They are not stagnant, but are constantly being exchanged over time, such that we can imagine

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that all of the atoms in my body today differ from those in my body ten years ago. But I exist now, and I also existed ten years ago; the same is true of each atom that participated in my body both ten years ago and today. According to the universalist, says van Inwagen, any particular x's that compose a given object continue to do so regardless of their positioning. A car, for example, is still a car even if we lower its windows. So the atoms that made up my body ten years ago should still be said to compose me today, since we are ignoring their position in space. If that's the case, then why is it that I currently consist of newer atoms that were not a part of me in the past? The alternative claim that a universalist could make is that spatial position actually does play a role in objecthood, and a car with its windows down is a distinct object from its closed counterpart. But this claim would seem just as absurd; turning the steering wheel of a car would mean the creation and destruction of an infinite number of new cars, each existing for an infinitesimal amount of time as the wheel is moved (van Inwagen 75, Rea 348).

Dissatisfied with both of the more extreme views, a moderate answer to the special composition question attempts to find some sort of middle ground. These views claim that only certain arrangements of simples count as objects, while other arrangements fail to do so. Moderate views are generally motivated by intuitions that conflict with nihilist and universalist views; certainly we want to believe that a table is an object, but we wouldn't ordinarily want to say that there is an object composed of every national monument. A moderate approach tries to satisfyingly draw the line between object and non-object. Historically, most moderate approaches can prove difficult to defend; they lack the same ideological simplicity

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that nihilists and universalists have. There has been a great deal of diversity among such strategies, however. These views tend to differ in the sort of condition they use that, when fulfilled, lends objecthood to an arrangement of simples. The most common type of conditions that are suggested deal with the spatial relationship between simples. Some of these can be incredibly straightforward, for instance one suggestion is that an arrangement of simples is considered an object as long as those simples are touching one another. We call this the “contact” condition. In theory, this idea seems to make sense, but in practice there are some huge problems. Physicists tell us that the particles of matter never actually touch, and that even solid objects are technically composed of mostly empty space, with a bit of substance thrown in. Even ignoring that fact, the contact condition would imply that my shoes form a single composite object with the floor tiles they come into contact with. We wouldn’t want to ascribe objecthood based on such a loose and unintuitive association.

It is easy to see how this type of moderate view could go awry when it relies on such a simplistic condition. But perhaps one might attempt to work their way around these issues by adding to their account. Following after the contact condition, we might consider “fastening” to be a better alternative. The fastening condition states that some number of x’s compose a y if those x’s cannot be easily separated. At face value, this solves the problems faced by the contact condition; my shoes are not one with the ground because they are too easily separated. But with what criteria do we determine the difficulty of separating the two objects? There certainly seems to be some vagueness here, and any chosen amount of force would seem to be arbitrary. We can also think of more counterexamples that should not

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count as composite objects: a belt can be quite securely fastened to a pair of pants, but we would hesitate to say that they form one composite object.

Rather than requiring some level of difficulty in separating x's from one another, what if we say that they must be inseparable without breaking? If we put forward this breaking condition, then we avoid the fastening problem of deciding what level of separation difficulty is permissible for objecthood. Still, we face the same problem of allowing for unconventional objects. We might be forced to say that any two objects can become one if we apply a bit of superglue.

What if we made our criteria even more stringent? Some might propose "fusion" as an acceptable standard wherein x's compose a y if there is no clear divide between the x's. Unfortunately this attempt goes a bit too far, ruling out potential composite objects that we would ordinarily want. Think about a hammer, for instance. We can easily see a divide between the metal head of a hammer and its wooden handle. If we were to rely on fusion, we would need to reject the existence of hammers as composite objects. Once again, it seems that our efforts go awry.

These examples serve as a testimony to the great difficulties moderate views must overcome. Universalism and nihilism, although extreme, each have a certain simplicity to them that is appealing. When we head down the moderate path, we start having to complicate our account such that this appealing simplicity is lost. Moderates need to satisfy two different questions: Why are certain arrangements composite objects? And why are other arrangements not composite objects? They need to come up with the criteria that satisfyingly draws the line between object and non-object. And this, as we have seen, is a rather difficult task.

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What do these moderate views have in common? They all attempt to define objecthood in terms of spatial relationships between x 's. But not all moderate views necessarily deal with these spatial position conditions, however. One moderate view that I will go into particular detail with comes from Peter van Inwagen, who we might consider to be the founder of this special composition question. His particular take on the special composition question uses "life" as the criteria; some x 's can be said to compose an object if they constitute a living thing. This view, although quite popular with some, remains somewhat unsatisfying. There does not seem to be any immediate violation of our intuitions, however. I will be discussing van Inwagen, as well as emergent properties, in much greater detail later on in Chapter 2.

The view that I will defend in this thesis will also fall in the moderate domain; I claim that some things are composite objects, while others are not. There are certain issues I take with both nihilists and universalists, so naturally I must take the moderate middle ground. First and foremost among the issues with nihilism and universalism is that neither view accords with our intuitions regarding what things count as ordinary objects. For nihilists, the issue stems from their refusal to recognize the existence of ordinary objects. The term "ordinary objects" is often used by philosophers to refer to the layperson's conception of an object (Thomasson 9). When we speak of these ordinary objects, we cast aside theory and attempt to see the world based on our intuitions. Chairs, apples, people, rocks; all of these are ordinary objects because they fit with our intuitions about the world. Nihilists claim that there are no composite objects, which is in clear conflict with our intuitions about ordinary objects. The violation of intuitions for universalists lies not with the

objects they disallow, but with the absurd ones that they permit.

In the coming chapter, I will be addressing a moderate approach by Peter van Inwagen that shows some promise, and has wider implications involving emergent properties. Beyond that chapter, I'll delve into my own account, providing a much closer look into the intricacies of this psychological approach that emphasizes the origins of our perceptual intuitions. There is a history behind how we see the world, and we can use our knowledge of human tendencies to predict what will count as an object for a given person.

Chapter 2 - Van Inwagen and Related Approaches

2.1- Life as a Condition for Objecthood

In my first chapter, I gave a detailed explanation as to why the extremist views on composition, nihilism and universalism, are ultimately unsatisfying. I gave a further account ruling out moderate views that rely on spatial relationships. Now I will address one alternative approach that requires a deeper examination. I am not alone in my attempt at a satisfying moderate answer to the special composition question; there are others who find nihilism and universalism to be too extreme. One rather influential answer comes from Peter van Inwagen, a major figure when we are discussing composite objects.

According to van Inwagen, an arrangement of simples can only be said to be an object if the said arrangement constitutes a living organism. Humans and animals would count as objects, but the same is not true for tables and chairs. Van Inwagen

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calls this approach “The Denial”, highlighting his elimination of non-living composite objects from our ontology. The concept is interesting enough, but van Inwagen has a large explanatory goal that he needs to complete, just as any moderate approach would have. By taking a moderate standpoint, van Inwagen must explain why non-living arrangements of matter do not count as objects. But, more than that, he must also demonstrate which peculiarities set living things apart from other arrangements of matter. How does van Inwagen approach these two goals?

Perhaps the best place to begin is with a brief mention of what van Inwagen means when he refers to a “living organism”. We might look to biologists for the most accurate definition of life, but it is also helpful that we be aware of the term as van Inwagen uses it in the context of *Material Beings* (1990). Living organisms are distinguishable from nonliving composite objects on the basis of their complex organization that remains in a relatively stable pattern across time. Living things are not static entities; they constantly take in new particles and expel old ones. Van Inwagen refers to them as a sort of “event” akin to an ocean wave or a school club with ever-changing members. An odd facet of van Inwagen’s definition is that he does not think that any given x’s can constitute more than a single life at a time... unless one of those lives is subordinate to the other the way living cells make up a human being. Living things are “jealous” in the way they disallow their x’s from overlapping in other lives (van Inwagen 89). This strange stipulation is meant to make living things distinct from other events, such as waves in the ocean. An ocean wave is a relatively stable pattern of interchangeable particles; in a lot of ways it is quite like a living thing. But the x’s in a wave might also participate in another wave

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simultaneously; waves are not “jealous” the way that living organisms like plants or animals are.

Given this picture of a life, how does van Inwagen proceed? In *The Denial*, van Inwagen attempts to reconcile our own existence with the way we talk about existence in ordinary life. Surely these two ways of referring to existence are different from one another? Eli Hirsch gives an excellent formulation the argument, which is as follows (Hirsch 687):

1. Our concept of existence cannot be metaphysically arbitrary.
2. If we are guided by how people use the existential quantifier in the ordinary business of life, it will seem that our concept of existence is metaphysically arbitrary.
3. Therefore there must be a strict, philosophical sense of the quantifier, different from its use in the ordinary business of life, which expresses the non-arbitrary concept of existence.
4. I exist in the strict sense, and I am a living organism.
5. If I exist in the strict sense, and I am a living organism, then it would be arbitrary to suppose that other kinds of living organisms do not exist in the strict sense.
6. Therefore many kinds of living organisms do exist in the strict sense.
7. To allow that any other composite things besides living organisms exist in the strict sense would make the concept of existence in the strict sense arbitrary.
8. Therefore the only composite things that exist in the strict sense are living organisms.

The argument here relies on a few important points. According to Hirsch, the most fundamental premise that van Inwagen is relying on is the “non-arbitrariness principle” (Hirsch 687), our first premise. To illustrate this principle, think of a

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statue. It is some arrangement of matter that has been molded by a sculptor into a given shape, and then given the name “statue”. Although we are inclined to call statues objects, it also seems true that the arrangement called a statue came about in an arbitrary way. We might, as van Inwagen suggests, knead a ball of clay into some complicated arrangement and then call such an object of that shape a “gollyswaggle” (van Inwagen 126). To believe in the existence of a “gollyswaggle” is far less intuitive than in the case of a statue. Van Inwagen thinks that our concept of existence cannot be arbitrary (at least in the strict sense). If we reject the existence of gollyswaggles (and Van Inwagen thinks we should), then it seems that we must also reject the existence of statues and similarly arbitrary “objects”. When we make decisions or hold beliefs arbitrarily, van Inwagen would argue that those belief or decisions are unjustified.

Another detail of The Denial that should be noted is the distinction between the two different ways we discuss existence. Considering statues once again, the way people talk about existence in ordinary life seems metaphysically arbitrary; a statue is just an arrangement that we gave a name to. Van Inwagen says that this cannot be the case; our concept of existence can't be arbitrary. Therefore, there must also be a strict sense in which we refer to existence that differs from its usage in everyday conversations. Statements we make toward supposed composite objects can be literally true in the ordinary business of life, while still being false in this stricter philosophical sense.

Given the arbitrary sense of existence that is expressed through ordinary vernacular, there must be also strict sense of existence (given our first premise). So

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what can we be sure exists in even this strict sense? The only clear candidate for existence is oneself. This idea traces back to Descartes and his famous Cogito Argument, "I think, therefore I am". Perhaps a clearer way of putting this statement is something closer to "I am in the process of thinking, therefore there must at the very least be something doing this thinking". This argument has been widely accepted, and is very often foundational to arguments of existence.

Although van Inwagen approaches the issue in a roundabout way, it seems as if one critical element in this argument is conscious experience. I can be sure that I exist in a strict sense because of Descartes' classic Cogito; I am in the process of considering my existence, so there must be something undergoing that consideration. This seems fine enough, but van Inwagen goes on to extend this notion to other living things. I would argue that he makes too many assumptions in his attempts to do so. The latter portion of the fourth premise will likely meet with resistance from a certain subset of philosophers: that "I" am a composite object. Although our perceptual experience is constantly joined by the presence of our body, there might be those who are inclined to question this relationship between the two. It is at least imaginable the mind is a separate entity from the body, with the body merely being an arrangement of x's that carry along with us. If this is in fact the case, then van Inwagen would lack the metaphysical glue he needs in order to say that one's own body exists as a composite object in a strict sense. Those inclined to argue for the existence of a soul or some type of mind-body dualism would already find fault with van Inwagen's argument for this reason.

But perhaps we are willing to entertain this assumption, and say that I really

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am a composite object. This would entail that at least one composite object exists in a strict sense. Van Inwagen's next assumption, however, is that it would be arbitrary to not extend this same strict objecthood to all other living things. After all, van Inwagen argues, wouldn't it be arbitrary to call one living organism an object and not the others? I take this to be too grand of a leap forward. As I understand it, we initially laid claim to our own existence because of our own conscious thought process. We then proceeded to extend that privilege of objecthood to other living things simply because "it would be arbitrary not to do so". But I am not satisfied that this is enough of a reason; surely we would want to appeal to more than just this non-arbitrariness principle when we make such a huge step forward from our starting point.

Surely there is a deeper reason for extending existence to other living organisms. I think the underlying point that van Inwagen is making is that if I exist, then arrangements of matter that are similar to myself must also exist. We have a conscious experience that can make our existence known on an introspective level; perhaps similarly arranged things also have this conscious component that ensures their existence. But van Inwagen considers non-conscious living things such as bacteria or trees to be composite objects. Perhaps we could expect this consciousness from intelligent animals, but when we ascribe objecthood to plants and microscopic organisms, it would seem as if we would be doing so against reason. Perhaps van Inwagen does not want to involve consciousness; he just thinks that it would be arbitrary to call one living thing a composite object in the strict sense and not other living things. But in that case, why are we even choosing to

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focus on living things? We could instead have said “I exist in the strict sense, and I am human-shaped. It would be arbitrary to suppose that I would exist in the same way, but not other human-shaped objects. Therefore, human-shaped objects must exist in a strict sense”. That sort of argument would indicate that a mannequin exists in just as strict a sense as a human being does. Van Inwagen would respond by saying that my being a living organism is the most general property I have; furthermore, no other properties can be considered as additions because they would be arbitrarily chosen. Van Inwagen paints a picture of what it means for something to be living, but it is still not entirely clear why life in particular is supposed to hold so much ontological value. At this point, it’s starting to seem as if van Inwagen unduly values living things, almost as a sort of biocentrism. There is a feel to this argument as though it has been reverse engineered; what circumstances can be put in place such that living things are the only objects?

It can also be so easy to get caught up in van Inwagen’s words such that we fail to recognize the biggest flaw of his view: the violation of our intuitions. If we choose only to regard living things as objects, then we fail to preserve our intuitions about ordinary objects. Van Inwagen is committed to saying that tables, chairs, and the like do not exist as anything other than arrangements. Wouldn’t it be a backwards sort of ontology for us to exclude ordinary objects? After all, one might call it common sense to say that chairs exist. But the curious thing is that van Inwagen would reject this claim; he thinks that the denial of non-living composite objects accords with common sense (van Inwagen 98). His distinction between the two different ways in which we talk about existence is meant to be the key here.

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Statements we make toward supposed composite objects can be literally true in everyday vernacular, but not in the strict sense of ontological discovery. Someone making the statement “there is a table in front of me” in an ordinary context does not mean to imply the statement “tables exist”.

This is a rather odd claim that I would certainly disagree with. If I were to approach a non-philosopher and ask them “Do chairs exist?”, what response would I expect to receive? “Of course they exist.” is the likely answer. They might even grow suspicious that I’m offering a trick question, because surely there is no doubt as to whether something we regularly interact with exists. Furthermore, our responses in these scenarios don’t typically have metaphysical errata attached to them. When someone says “there is a table in front of me”, they don’t mean “there is a table in front of me, but I also concede that it might not be a table if tables don’t actually exist”. They mean “there is a table in front of me”. If there are instances where a stricter sense of a sentence differs from the ordinary sense in which it is spoken, then those instances are incompatible with common sense. According to Hirsch, van Inwagen’s efforts in creating this distinction (between ordinary and strict) are equivalent to “constructing a language as close to English as possible except that it satisfies the non-arbitrariness principle” (Hirsch 691). As long as we plan to continue speaking English, it cannot be considered common sense for ordinary non-living objects to not exist.

2.2- Merricks and Emergentism:

If van Inwagen does not give an altogether convincing argument for the elimination of ordinary nonliving composite objects, then perhaps we might consider that of Trenton Merricks, who also attempts to eliminate non-living composite objects. Merricks' approach emphasizes what he calls the "overdetermination principle". If some x's cause an event, we shouldn't think that anything else causes that event (such as y's). The exception to this rule is where the x's and y's jointly cause the event, or where the x's cause the y's to cause the event. There are more immediate causes of events that are not worth referencing when we have access to the higher order causes. We can apply this notion to objects. Merricks gives the example of a baseball breaking a window. If we can say that the supposed baseball exists, then it is causally irrelevant to the breaking of the window. This is because we can already trace the breaking of the glass back to the causal powers of the atoms that make up the baseball. It seems as if the term "baseball" is unnecessary in explaining the cause of the broken window (Merricks 56). The same is true for all non-living composite objects: if they exist, they are merely overdeterminers of their effects, which can be traced back to their fundamental parts.

I am sympathetic with this idea of overdetermination. I agree that there is nothing especially wrong with using terms like "baseball" to describe some baseball-wise arrangement of x's. But Merricks wants to say that the baseball has no causal powers, and that only the fundamental parts do. What he neglects is the potential that the baseball has to produce a particular sensation in an observer, a sensation

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that no constituent x in that baseball could account for by itself. In Chapter 3, I'll go into much greater detail on what I mean by this "sensation".

As for Merricks' stance on living organisms, it should be noted that Merricks focuses on notions of personhood. He does not reject the existence of living organisms, but leaves open the question of their status as composite objects. It is human persons that Merricks defends in particular. How do human organisms escape overdetermination? Merricks' answer is that our constituent x 's do not account for all that we cause, making humans non-redundant in a way that is unlike a mere baseball. Our sensory experiences, he would say, are caused through some process that at the very least relies on "us" in some way, as opposed to merely the individual atoms of our bodies (Merricks 88). This sort of claim closely reflects a concept called emergence.

I think that both van Inwagen and Merricks are proposing views that are closely linked with what we would call "emergent properties", specifically in the context of ontological emergence. Those who propose ontological emergence claim that "some things which are fundamental are not ontologically independent" (Barnes 882). Ontological emergence involves something going beyond the scope of its parts. Under Merricks' reasoning, we don't want to refer to "baseballs" because we can trace all of the causal power of a baseball back to its constituent x 's. But what if the baseball had some property that could not be traced back to the x 's, something that went "beyond" those x 's? Would this property not be a good reason for considering those x 's as a single baseball? This is what we mean when we discuss emergent properties; they are properties that come about through the joint effort of

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x's without any single x having that property.

Although the existence of various emergent properties is often debated, there is one single property that appeals to most emergentists: consciousness. For some of these emergentists, there doesn't seem to be an obvious link between the individual bits of matter composing a human being, and the conscious experience had by that human. It's certainly a difficult task to describe how any single particle in the human brain could produce the rich experiences that humans have. But perhaps thought of together, the x's in a human could actually exert this phenomenon. In that sense, consciousness is a property that gives us a good reason to think of a group of x's arranged human-wise as a human being. This idea that consciousness lends objecthood seems to be a background motivation for mereologists such as van Inwagen and Merricks. With regards to this emergence-based approach, it is also important to consider the types of emergence that exist. Just as van Inwagen leaves the task of defining "life" to biologists, I leave the task of determining which properties are emergent to the emergentists.

In '*Downward Causation' and Emergence*, Jaegwon Kim brings up a major objection to this idea of ontological emergence. He objects to this view based on the implausibility of "downward causation" (Kim 120). If we want to consider the plausibility of something like ontological emergence, then we must also consider the implications for how we should think of causality in the world. Emergentists seem to think that emergent properties, such as consciousness, play a causal role in our explanations of events. When we consider that the world consists of numerous interactions among miniscule x's, emergentists would generally be inclined to say

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that emergent properties can act as causal explanations of those interactions. But at this point, a new question arises: how are the movements of these x's related to the higher-order explanations provided by emergence? Can 'consciousness', for example, fully explain the movement of atoms in the brain?

According to Jaegwon Kim, ontological emergentists face a serious dilemma regardless of the answer to this question. If emergent properties *can* fully explain the movement of micro-level x's, then Kim says that emergent properties must then be considered epiphenomenal; their explanations would be redundant. And if emergent properties *cannot* fully explain the movements of x's, then perhaps they do not possess causal powers as ontological emergentists claim they do.

Given Kim's account, I am inclined to reject emergence as a potential answer to the special composition question. Not only does ontological emergence lead to issues with causation, it also disagrees with my intuitions. The idea that some properties exist "over and above" matter seems to me to be too fantastic of a notion.

Up to this point, I have strongly hinted at my approach to the special composition question. Now, in Chapter 3, I will give an account of objecthood that focuses perception and practicality. Our conception of objecthood is closely tied with the observers, and the perceptual tendencies that have developed over the course of their evolution.

Chapter 3- Observers as the Providers of Objecthood

3.1- Perception, Composition, and Qualia:

It is here that I would like to go into greater detail with my approach to composition. There have been many answers to this question in the past, so there may be a lingering uncertainty as to why we need a good moderate approach. Why do we even attempt to make moderate views? Nihilism and universalism are at least somewhat compelling, after all. But the key issue I take with nihilism and universalism is that they both sacrifice our intuitions, albeit in different ways. My psychological approach emphasizes intuitions. I argue that our intuitions regarding ordinary objects are meaningful in the way we determine objecthood. I also feel that philosophy is at its best when it can work alongside the sciences. Interdisciplinary research is almost always mutually beneficial, and for philosophy, it can help to ground more abstract issues. In this context, a psychological approach allows us to analyze the physical processes involved in determining objecthood, and allow us to be more predictive in regards to what a given person will see as a composite object.

I'll begin again with special composition question: when do some x 's compose a y ? This is a question that focuses on composite objects; we want to know if they exist. And if they do actually exist, we want to know what conditions, if any, must be fulfilled for composition to occur. So when should we say that some x 's compose a y ? Under my view, the bottom line is that the x 's in question need to be sufficiently associated with one another, such that a given observer perceives the arrangement as an object. As I will explain shortly, observers play a key role in

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ascribing composite objecthood.

Think about the way observers look at the chaotic world around them, extracting the information they need to continue living with stability. We can perceive an abundance of information through observation: color, shape, texture. But as John Locke discusses in *An Essay Concerning Human Understanding*, there are distinctions to be made regarding this information as it exists in the mind and as it is reflected in the world. Locke distinguishes between ideas and qualities. Ideas are what the mind perceives within itself, whereas qualities are what have the power to produce ideas within us. A snowball, for example, has qualities such as roundness, coldness, and whiteness. These qualities produce their associated sensations within an observer (Locke 29-30).

Locke goes on to make a further distinction between two types of qualities. Primary qualities are inseparable from the body they are within. These include qualities such as motion, texture, and solidity; they are inherent in the matter itself. Secondary qualities are slightly different; they are expressible in terms of the primary qualities in the body of matter, but there is nothing in that matter itself that actually resembles the sensation within the observer. Secondary qualities may include various tastes and colors. The sensation of “sweetness”, for example, is not instantiated within by the matter that composes a piece of cake. We can explain cake in terms of primary qualities, but it takes a particular type of observer with the right configuration of taste receptors for this sweet sensation to be manifested.

I bring up this topic because there is a particular quality that is highly relevant to our special composition question. When we look upon an ordinary object such as a

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chair, we encounter a number of sensations that we would associate with the qualities of the chair, such as the chair's brownness or its solidity. In observing the chair, we also have the sense that all of the chair's parts are closely associated. The four legs of the chair, the seat of the chair, and the back of the chair: all of these visible parts seem to have an important relationship with one another. They seem united, as if they are all forming a single entity. This sensation is based off of the quality that I would call "unity".

What can we say about this sensation of "unity"? To start with, unity would seem to operate on a gradient. Bodies of matter can appear to us as more united or less united than one another. Furthermore, there seem to be a variety of factors that can influence our sensation of unity. We might first consider the relative spatial location among the x's; certainly they seem more united when they are closer to one another. We might also examine the appearance of the x's; when they look similar to one another, we perceive a stronger sense of unity from them. We might even look at the activity of the x's; whether they are all moving together in the same direction, for example. Given these considerations, I propose that unity should be defined as "the degree of association among any given x's".

In addition, I would argue that unity (at least in the compositional sense) is not a primary quality, but a secondary one. Locke says that primary qualities are "utterly inseparable from the body, whatever state it is in" (Locke 30). No matter how you act upon the body of matter in question, chopping it up or crushing it, the primary qualities are not disrupted; a brick maintains its solidity even if you break it. Unity, however, does not behave this way. It actually does seem as if you can

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disrupt the unity of a body. If I were to take a chair and remove its legs, the resulting body seems far less united than before. And if I then took the pieces of the chair and painted each a separate color, we might fail to see how those x's are associated at all. Unity much more closely resembles a secondary quality. Secondary qualities rely on the power of primary qualities in order to produce sensations in an observer. Think about the way "redness" works. The body of matter in question has a particular shape and texture (primary qualities) that give rise to the sensation of redness in an observer when interacted with by light. Doesn't unity work in the same way? Part of what makes x's seem united is their similar textures and motion. This type of reliance on primary qualities is indicative of a secondary quality.

One point of clarification here is that I mean to discuss unity in a compositional sense. If mereological simples exist, then we might say that a simple has the highest possible level of unity among its "parts". A simple's only part is itself, so its "parts" have reached the apex of association: oneness.

So how does this notion of unity tie back into the special composition question? As you may suspect by this point, arrangements of x's that give us a strong sense of unity are excellent candidates for objecthood. But there is still the question of how much is enough. To what degree do x's need to be associated for them to be considered a composite object? In the case of mereological simples, they surely would have enough unity to be considered an object; after all, you can't ask for more than oneness. If they exist, they would objectively have enough unity to be considered objects. But non-simples, in failing to achieve oneness, require the introduction of some evaluative component. That component is the observer.

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Because unity is a secondary quality, we cannot find it expressed in the physical matter of the world. But observers, on the other hand, are capable of experiencing the sensation of unity. They look upon some x's and are able to evaluate the associated sensation to determine objecthood. When do the x's pass the test? That will depend upon the thresholds of the observer in question. A given level of association among x's may be enough to convince one observer, but not another. Observers are not all alike in the way they are mentally wired; each observer can process perceptions differently from one another based on their evolutionary history and societal interactions. We see this reflected in the special composition question itself; there can often be some disagreement as to the ontological status of some given x's. This being said, a historical account of the development of human perceptions can give us a much better idea as to why humans are, in general, so alike in what they deem to be objects. With a clearer picture of how humans process the world, we can often make predictions as to what the typical human will call an object.

Before I delve into this historical account, I'll address one question that may have arisen by this point. I mentioned that objecthood is determined on a person-by-person basis, wherein the sensation of unity is matched against the individual's threshold for object determination. If this is in fact the case, then what happens in points of disagreement among observers? Can something be both a composite object and not a composite object? At this point the question becomes one of relative perspective. We have no objective reason to say any particular level of unity is enough, with the exception of oneness. Instead, looking at subjective reasons

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means allowing for occasional differences in outlook. If you really want to know what counts as a composite object, the best person to ask is yourself. Although the human evaluative criteria for objecthood are not objective, that is not to say that it lacks meaning. As I hope to get across with an evolutionary account of our perceptions, there are millions of years of human development that have gone into shaping our intuitions.

3.2- The Development of Perception:

People view the same stimuli in the environment around them, but may not perceive these stimuli in the same way as one another. And even when we do perceive things the same way, we may differ in the way these perceptions are processed. As previously mentioned, I place great importance upon such psychological underpinnings. While individual differences in outlook naturally arise, it can be said that there is an “average” way of looking at the world among humans. This is because of the shared perceptual tendencies that we have developed. In psychology, we often talk about the way observers organize the barrage of sensory inputs from the outside world. There is a constant flood of information streaming from our environment, yet we are able to sort through it all and extract the pieces that are relevant to us. This process of sorting through sensory information is evolutionarily advantageous; it allows us to pick up on patterns that are vital to survival and reproduction. In a sense, humans (and any other organisms capable of perception) could be considered pattern-recognition machines. For living things to survive and reproduce, they must be able to distinguish between different external

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stimuli. There is a huge difference between encountering a mate and encountering a predator. And which would survive longer: the human who goes around eating apples, or the one who goes around eating sharp rocks? Misidentifying a predator as a mate or a rock as an apple can mean certain death in an unstable and competitive environment. The organisms that survive are the ones that can properly distinguish between these vital stimuli. Over time evolution has lead organisms to become progressively more efficient at recognizing how different patterns could be relevant to themselves. The point here is that only specific patterns in the environment have been reinforced; in particular those that have proven useful and self-relevant. These would primarily include patterns of simples that can easily be interacted with and would explain why humans today most readily identify objects that can be handled and manipulated in some way.

James Gibson gives a particularly compelling account of the development of human perceptions. His “Theory of Affordances” says that humans came to identify and distinguish particular ‘objects’ in their environment based on what certain features of the environment *afford* the observer. A flame, for example, affords warmth to the observer. A wide, flat surface affords support. In this way, observers start to perceptually break down the surfaces they observe into meaningful chunks (i.e. this chunk provides warmth, while this chunk does not).

One feature of this approach is particularly important for our questions regarding composition. Although affordances are based off of physical properties (“support” is based off of wideness, flatness, and extendedness), the affordance itself is something that will differ from one animal to the next. Gibson gives the example

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of a water bug. To a water bug, which can tread along the surface of water, there is an affordance of support that comes from water (Gibson 120). Humans do not receive this same affordance of support from water. This difference in affordances is a strong motivation for me to emphasize a somewhat subjective aspect to objecthood. Across different members of the same species, I attempt to account for potential differences in observers with regard to unity.

Our perceptual processes have developed to such a degree that we are far more likely to identify self-relevant patterns as objects. Of course, not every pattern we encounter can be accounted for in evolution. As is often the case in psychology, nature is paired with nurture. There are ways in which society influences the way we perceive stimuli, including those that we have no evolutionary account of (such as cars or fire extinguishers). Consider what goes on in the first few years of a child's education. A parent, teacher, or mentor will show the child a picture with an associated word. This is a common method of teaching reading, but when we consider it in the context of the special composition question, it can mean quite a bit more. When an authority figure holds up a picture of a cow, they are reinforcing the child's ability to recognize that arrangement as a single object. While the child is likely to see it that way anyway (due to their selected-for perceptual intuition), the social influences solidify their subjective understanding of such arrangements. These social factors serve to fine-tune our perceptions, not only preparing us for the challenges of modern life, but also making us more alike in the way we analyze the world around us.

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Another important point here is that I am referencing observers, not necessarily humans. Throughout this piece I have generally argued for my view using humans. These serve merely as convenient examples observers that we are intimately familiar with. Objecthood can, however, be lent to an arrangement by any variety of observer. Just as humans have been naturally selected to recognize patterns in nature, so too have the majority of living things. An eagle soaring above the treetops can quickly identify its prey far below and swoop in for the kill. The way an eagle identifies its prey mirrors the way we humans recognize objects. That is not to say that I would extend this privilege to any living organism. At a bare minimum, the organism must be able to observe and process the world around them to some extent. This disqualifies some living things such as plants, fungi, certain microscopic organisms, and even extends to more complex organisms such as humans and animals if they are rendered incapable of observation.

Furthermore, observation does not imply a purely visual medium. Although humans gain most of their information through visual sensory data, there are many other methods by which observers can come to recognize arrangements as objects. If you reach out and feel something that is solid and cohesive, you may be inclined to regard it as a single composite object. This feeling would be all the greater if you felt the same exact texture across the surface of the object. Even something like taste or smell can be used in this way; each bite of an orange comes with the same distinct tangy flavor and citrusy smell, so we believe these must have come from the same object. The fact that this is possible is especially important for observers that lack other senses. Of course, if you have no way to perceive the world around you,

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whether through natural inability or through severe injury, you have no way to evaluate the associations between x's.

Given what we have learned about human perception, we have the proper tools to predict whether the average human will perceive an object or an arrangement for a given stimulus. We can look at the perceptual tendencies that humans have developed, since those tendencies will hold major influence over the observer's threshold for object determination. I think that the arrangements that are most likely to be called objects are the ones that conform to the broad perceptual tendencies that we call "Gestalt Laws". *Gestalt* is a German term that psychologists use to refer to unified wholes in perception. The idea is that the human mind has particular tendencies by which it organizes sense data, leading to the extraction meaningful information from an otherwise chaotic environment. A gestalt law is the name we give to those particular perceptual tendencies. We might consider, for example, the Gestalt law of similarity. The law of similarity states that we are more likely to perceptually group visual stimuli that are similar to one another. If we look at an assorted pile of chess pieces, we'll mentally associate the white pieces with one another, separating them from the black pieces based on their level of similarity.

Another principle we might consider is the Gestalt law of *continuity*. We are more likely to view certain visual stimuli together if their orientation gives the impression of a continuous extension, following a path or series.

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A dotted line (as shown below) serves as an excellent example of this principle of continuity:



Immediately our eyes trace a dotted line from one end to the other, viewing it as a single continuous entity, rather than the series of individual lines that make it up. There is a sense in which this process is automatic and effortless; without even really meaning to, we consider these dashes of ink together. Furthermore there is a particular *way* we view the image. We are inclined to follow the looped portions as part of the path itself, rather than as some separate portion coming off of the main line.

This idea becomes all the more interesting when we imagine replacing our dashes of ink with x's or mereological simples. A dotted line of simples would be much more likely to be seen as a single object than in most other arrangements. Though the simples themselves can hardly be called a composite object under most definitions; after all, there is no particular connectedness involved, merely orientation. Simples can be arranged in ways that give us these same automatic intuitions of relatedness that would ultimately result in the sensation of unity that I have in mind.

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This situation becomes even stranger when we imagine a dotted line that forms an outline to a familiar shape, such as a person. We still don't quite want to say that the dashes of ink (or simples / x's) are composing something; they are clearly separated from one another in a noticeable way. But we cannot deny that our perceptions pick out certain arrangements as meaningful. We've been hardwired to more readily make these perceptions.



We have quite a few of these hardwired tendencies, and they all impact our experience of external stimuli to some degree. A lot of these principles may seem obvious at a glance, perhaps even common sense. But they have major implications when we apply them to the special composition question, and are more than merely visual stimuli. If we look at a "dotted line" as a singular entity, then why not a dotted line made of x's or mereological simples? Or better yet, we could apply a number of gestalt principles to the same situation, just as they would in reality. Imagine a series of objects that are similar to one another, positioned extremely close to one another, and are oriented in a continuous fashion. Isn't this exactly what we observe with supposed objects? All the pieces that compose a solid object seem to conform to these rules.

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Framed in terms of perception, this psychological approach to the special composition question should now make a lot more sense. But there are a few special cases that don't quite have their answer yet. The first is this: what is the ontological status of some given x 's in the absence of observers? If there is no one observing the x 's (or more extremely, if there are no observers at all), then there is no way to evaluate the unity of those x 's, and they cannot be granted objecthood. In short, if there are no observers, then there are no composite objects. The other case I want to mention involves odd claims to objecthood that are not derived from evolutionary tendencies, nor from society. It is imaginable that someone could, through some mental effort, raise or lower their own threshold for objecthood, thus allowing them to consider incredibly disjointed arrangements as objects (as one might observe among philosophers). There is admittedly some question as to the validity of these "forced" claims that go against the ordinarily automatic process of perception. Perhaps some universalists would argue that this process allows unconventional composite objects with extremely low unity to exist. I'll leave that as an open question for the time being.

Chapter 4: Objections and Clarifications

1. How does universalism fit into this view? Is there a limit to what can be considered an object?

For any given x 's, there is at least some level of association between them. That association might be incredibly weak, but there is always some degree in which x 's can be considered together. With this in mind, we can imagine that for any x 's, there can possibly exist an observer with a low enough threshold that they would see those x 's as an object. In this sense, it is technically true that any arrangement of x 's can be an object.

With varying levels of unity, however, it seems as though some arrangements of x 's are more likely to be viewed as composite objects than others. We can make sense of this in terms of "possible worlds", as well as the relative proportion of people who are willing to assign objecthood to some given x 's. In our world, collections of animals (i.e., flocks of birds, herds of cattle, schools of fish, etc.) are not generally seen as singular composite objects in the same way that we might view a chair or a table. But we can imagine a possible world where the typical person looks at a flock of birds and sees it as a single composite object flying in the sky, one that is just as much a single object as a wooden table. All that this change would require is a slight adjustment of the observer's threshold for objecthood. On the other hand, we might imagine a possible world where the typical person is compelled to say that there is an object composed of the upper half of every national monument (but not

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the lower half!) and the hair of every goat. Such an object would have a vastly lower level of unity than what would be generally acceptable in our world. We would say that the former possible world is “closer” to our own than the latter possible world. Furthermore, we would say that something with a high level of unity, such as an apple, is considered an object in a greater number of possible worlds than our patchwork of monuments and goat hairs.

Going along with this idea, any given x 's has the potential to be an object, and actually is one in some possible world. But in any of these possible worlds, the objects rely on appropriate observers, whose can regard the x 's in the way that the potential object requires.

2. We can think of some ways that x 's can be associated that would not increase unity, such as the association between cats and dogs or between salt and pepper. How should we think of “association”?

Recall that back in chapter 3, I previously referred to unity as “the degree of association among x 's”. This definition can be a bit troubling when we start to use the term association too liberally and misinterpret our definition. There are many associations that do not contribute to unity and can sometimes even detract from it. Consider the association between fire and ice. Yes, we might think of one in response to the other, but this type of association does not contribute positively towards unity. It comes about because of more complex notions we have developed.

The key distinction about our definition is that we are not merely talking

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about association in general. We are looking at association among x's. That is, associations between objective physical masses. These are the types of association that contribute positively to unity; ones that deal with bodies of matter. Sure, we might say there is some sort of linguistic association between an apple and an aardvark in that they start with the same letter in English, but this is not truly an association between an aardvark and an apple, but rather an association between two words.

When we talk about opposites such as fire and ice, what we are actually associating are not x's, but concepts of x's. In a physical sense, there is relatively little unity between a flame and a chunk of ice. The same is true of the association between a baseball and a baseball bat. The two are associated, but this only seems to be true at a more conceptual level. I would consider these associations among ideas and concepts "second-order associations" and they are not included in the definition of unity.

3. What constitutes an observer's "threshold" for objecthood? And can an observer alter their own threshold for objecthood?

When I discuss an observer's "threshold", I mean to refer to the sum of the various factors that set the bar for the observer's subjective standards of objecthood. The factors can be quite numerous, and I do not claim to know of them all. In general, though, we might think of an individual's threshold as being composed of their perception-related genetic predispositions and societally-

instilled ways of thinking.

Usually the object determination process is automatic, and involves very little personal input. But there are surely people we can think of who have bizarre ideas of what counts as an object, especially where philosophers are concerned. Part of how this might happen is through some sort of self-conditioning. It is imaginable that, through repeated trial and error, you could train yourself to automatically identify a flock of birds as a single object. This would result in the observer immediately having the intuition of seeing an object when looking at a flock of birds. There is some question as to whether this is actually possible; perhaps the process works as normal and you have the intuition that the flock is not an object, but you feel like you can come up for an argument to explain why your intuitions are wrong. And perhaps this trial and error has not truly altered your threshold, but merely given you a conditioned response. If it is possible to alter one's own threshold for objecthood, then we might need to raise further questions as to the validity of such objects. As it stands, it is unclear whether someone can directly tamper with their own object determination.

4. Is there some objective sense in which unity, as a secondary property, is grounded in matter?

Insofar as they exist within the object, Locke says that secondary qualities are “nothing but powers to produce various sensations in us by their primary qualities” (Locke 30). This is to say that secondary qualia come packaged inside the

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matter in some way; within the x's there is an objective power to produce the sensation of a secondary quality in an observer. This power comes in the form of primary qualia that are associated with the secondary quality.

If we want to give an objective account of "redness", for example, we would want to reference a certain kind of surface structure in the matter that, under the correct observation conditions, lends us the red sensation that we are familiar with in our experiences. That surface structure can be described in terms of primary qualities. The surface of a rose petal has the correct combination of solidity, texture, and motion of subatomic particles that provide the potential for the sensation 'redness' when all the proper conditions are fulfilled (i.e. there is light interacting with the petal and there is an observer present to receive the reflected light bouncing off the petal).

This works the same way for unity; we can describe unity based on the primary qualities it uses in the x's. Unity can consist of a vast variety of primary qualia; there are a myriad of ways x's can be associated with one another. I won't attempt to list them all. Instead I'll highlight a few examples to illustrate how all of this is supposed to work.

Consider an oak tree. An oak tree has a high level of unity, and most people should at least have the intuition that a tree is a unified entity (whether or not they are in favor of that intuition). Among the parts that compose this oak tree, there are primary qualities that are influential toward producing this unified sensation. The oak tree has a particular texture stretching across it, for example. All along its trunk is the same rough wooden texture of bark. Parts of the tree also have the right kind

of motion that would lend unity; the heavy base is mostly immobile with gradual movement among branches the further they get from the base. These are all primary qualities that contribute to the sensation of unity emanating from an oak tree. If we think of secondary qualities in terms of the object and its primary qualities, we can have the objective account we are looking for. This is not to say that secondary properties are *reducible* to primary qualities.

5. If unity can be objectively grounded in matter, then why do we even need to reference observers in establishing objecthood?

When taking an objective approach, it's true that we refer to unity in terms of its associated primary qualities. But this type of reference is done out of necessity; we do not have any other recourse when we remove observers from our discussion. Secondary qualities, such as unity, are not fully accounted for unless we reference the sensation that is had by an observer. Consider the color red. Redness, as we refer to it, is not merely a surface structure that has the potential to give observers the sensation of a particular color. The sensation aspect seems to be a meaningful part of what redness refers to; we often talk about redness in terms of the way our senses respond, such as with heat, passion, or anger. On the other hand, we wouldn't necessarily want to say redness is merely a sensation. Surely some aspect of redness is embedded in the objective world. Perhaps secondary qualities ought to be thought of on the basis of a dyad between observer and observed; neither is sufficient by itself for instantiating the secondary property.

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Even once we can determine the level of unity that is associated with the x's, this is still not quite enough to determine objecthood. X's can only be seen together as an object if their unity is above a certain threshold of the observer. A higher level of unity is certainly more likely to imply objecthood, but by no means guarantees this status.

6. Can there be instances of composition that do not meet the observer's standards? And can x's that *do* meet the standards fail to be an object?

In making evaluations of objecthood, the observer automatically compares their own threshold for objecthood to the level of unity observed among x's. In most circumstances, any x's with a level of unity above this threshold will be regarded as a composite object. This being said, however, it is not unimaginable that someone might view a lump of sand as an object, but not a table. Under what circumstances might someone fail to lend objecthood to x's that successfully meet the threshold's requirements?

In order for such an oddity to be instantiated, an error would have to occur somewhere within this process. The most likely culprit is perception. If the observer's perceptions fail to accurately reflect the unity of the x's being observed, then the evaluation may result in objecthood when it should fail to do so, or vice versa. This type of perceptual error can be either internal or external to the observer. An external perceptual error would involve environmental conditions, such as fog or heat distortion, that give a false impression of the x's being observed.

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If the perceptual error is internal, it is likely due to some issue with the observer's senses, such as blurred vision, though this could also be due to an error in processing at some level. Any of these errors could result in inconsistencies in ascribing objecthood.

7. How does this view account for flawed perceptions? If I forget to wear my glasses, my blurred vision might make me more likely to see a pile of garbage, for example, as a single unified object.

I understand the concern that is brought up here; we might think that if the observer's perceptions are flawed, then any account of objecthood we might receive from that observer is compromised. Although this answer may run contrary to expectations, flawed perceptions do not invalidate object determination. Flawed perceptions can still produce valid assessments of objecthood.

Think of the situation this way: an eagle's eyesight is many times stronger than that of the normal human. It can identify miniscule animals to prey upon, even from high altitudes. When we consider this amazing feat of eyesight, we might say that the eyesight of any given human is deficient in comparison. We would not, however, want to invalidate the account of a human with 20:20 vision simply because they cannot compete with a bird of prey.

If we are willing to allow for this level of imperfection among basic human senses, then perhaps we should also be willing to allow for more traditional flaws, such as blurry vision. In either case, there is simply an instance of less-than-perfect

perception.

It is also worth noting that decisions of object determination are not set in stone. If the individual with blurred vision later views the same x's, he might, having acquired a pair of glasses, receive an entirely different impression. If this is in fact the case, the ontological status of the x's may be updated for that observer as its circumstances change.

8. If John sees an apple as an object, but George does not, who is right? What is the ontological status of some given x's when there is conflict among observers?

First, I'll clarify one point: there does not need to be unanimity among observers for some given x's to count as a composite object. Objecthood is granted on a person-by-person basis in response to the observer's particular threshold. The result is relativistic; if the unity of x's is enough to pass the threshold, then the x's are an object for that particular observer.

To answer our question, both John and George are correct in their assessment. The apple is in fact an object to John. To George, there is no such object. In their disagreement, however, the two have made the error of assuming that the other shares the exact same standards of objecthood. This is an understandable mistake; most of the time humans, especially those raised under the same conditions, will be remarkably similar. Seeing others repeatedly share the same intuitions regarding given objects, we might come to assume that notions of

objecthood are universal. But this assumption can be misleading.

Is there a more general and objective answer to the question “is an apple an object?”. Unfortunately, no. We can speak of likelihoods for what most observers of a given kind will agree upon, but we can’t give an answer that will apply to any observer. If, however, you really want to know if there is an object composed of certain x’s, then there is no better authority on the matter than yourself. At a personal level, any observer should be able to answer the question “are there apples?”.

9. Can we speak of “collections” or “arrangements” of simples without reifying them, counting them among objects?

This is a point where language becomes tricky; in referring to x’s as collections or arrangements, there could possibly be an implication that these arrangements exist. Yet the words themselves are innocent enough. If we want to discuss some given x’s, those x’s will invariably be arranged in some way based on their position in space. Can we not call this an “arrangement”? And if we merely want to consider the group of x’s as a whole, is this not a “collection”? X’s do not just become objects the moment they are referenced together; there are other factors involved, such as the previously discussed unity and thresholds. I think the terms have their use when we are looking to refer to multiple x’s which are either presently ontological undetermined, or which have failed to meet the standards of objecthood. Having said all of this, I still take great caution in using the terms to

avoid misunderstanding among those who have not yet understood my reasoning on the matter.

10. Does objecthood require continuous observation? What happens to previously confirmed composite objects once we stop observing them?

Once we have confirmed that some given x's form an object, the observation of those x's needs to be ongoing in order to maintain the status of an object. We can imagine a scenario where an observer judges some x's to form a chair. Satisfied, our observer leaves the room and ceases observation of those x's. In our observer's absence, the chair collapses into nothing more than a pile of saw dust that is then swept out the window and scattered. If we were to allow objecthood to persist among x's without some ongoing observation, it could end up that the x's cease to have their original degree of association, yet would still be called an object in the absence of an observer. This is not the sort of claim that I am trying to make.

But our judgements of objecthood do have a way of sticking around; they are not entirely trapped in the present. Upon viewing some x's as an object, we "set the bar", so to speak, for future encounters with that type of stimulus. Observing chair-wise x's and viewing them as an object will start to form an idea of "chairs-in-general" (a chair *schema*) in our minds. Given an idea of chair-like stimuli that involves objecthood, we will be more likely to make consistent judgements regarding

these stimuli; if in the past we assigned the label of an object, then we will likely do so again in the future.

11. What about before observers existed? Before observers came into being, were there any composite objects?

Before there were observers in the universe, there were not any composite objects. The only objects that could be said to exist were mereologically simple, because there did not yet exist observers that could act as evaluative components for the unity of given x's. I'll reiterate that I do not mean for the term *observer* to be synonymous with *human*, nor do I even mean that the observer need be particularly intelligent in any way. All that is required for observation (and thereby the existence of composite objects) is the barest sense of observation; some level of identification of stimuli.

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