Metaphysics

Philosophy is a very broad subject. Typically, it is divided into the following areas:

- **Metaphysics** – The study of reality, or what exists.
- **Epistemology** – The study of knowledge, or how we know things.
- **Ethics** – The study of morality, or what we ought to do.
- **Logic** – The study of how to reason properly about things.

We’ll be dealing with the first of these issues. When asking, ‘What exists?’, the first answer that comes to mind seems to be: Things! Things like tables, trees, cars, clouds, planets, and people. And furthermore, these things have properties, or attributes. There are rectangular tables, tall trees, loud cars, fluffy clouds, huge planets, and funny people. So, that’s where we’ll start; with things and properties.

Things

How do I know that there are tables? Do I observe tables? What DO I observe?

When I observe the table, I notice certain qualities. I see that it is rectangular and brown. When I rap my knuckles on it, I experience its solidity and hear a knocking sound. And so on. But, so far I have only listed some properties OF the table as the things I can experience. The question remains, how do I experience the table???

1. **Substratum Theory:** These two things seem true:

   (1) *Properties cannot exist on their own (uninstantiated).* If I said to you, “Go get me some redness”, what would you bring back? The best you could do is bring back red THINGS (red tomatoes, red rubies, red socks, and so on). Properties cannot exist on their own. It seems that they need to be ‘instantiated’ IN things.

   So, if there are a bunch of table-y properties in front of me, surely there has to be some THING that HAS these properties, right? THAT thing must be the table.

   (2) *An object can survive the loss of (some of?) its properties.* The brown table in front of me could be painted white (losing its brownness) and it would still be the same table.

   So, it stands to reason that something remains the same. Perhaps the table is the thing that SURVIVES this replacement of properties.
Consider an example from René Descartes:

- **The Wax Example**  Descartes examines a piece of wax, taken from a honeycomb. It tastes like honey, it smells like flowers; it has color, shape, size; it is hard, cold, and it makes a sound when he strikes it. But, then he puts it near the fire. The taste and smell go away. The color, shape, and size change; the wax becomes soft, hot, and no longer makes a sound when he strikes it. In short, every perceivable property that it formerly had goes away when heat is applied. Yet, somehow, it is still the same wax!

Descartes asks, if every perceivable attribute of the wax disappears, and yet we still think it is the SAME object, then WHAT is it that remains the same throughout the changes?

**Conclusion:** We are being driven to the conclusion that the table is some underlying THING which I cannot directly experience. This is called the **substratum** view.

But, what is this ‘substrate’ that underlies all of the properties?

We typically think that **matter** is the underlying substance or THING that possesses properties. But, what is matter? We may THINK we understand what matter is, but Descartes demonstrates that we really have no idea what the underlying thing that possesses properties is. We do not, in fact, ever even perceive matter! Therefore, material bodies are not something we *perceive* with the senses. Rather, they are something we *judge* to exist with the mind.

But, then, back to our question: **What IS the table?** Our suggestion so far seems to be that the table is a ‘substrate’ that is not brown, or rectangular, or hard, or four-legged, etc. For, we have said that the table itself is property-less. Rather, it is the thing that HAS the properties. But, then, the table is just some *bare, non-descript* thing.

Mumford likens this substratum to a pincushion (but an invisible, non-observable, quality-less pincushion). All of the pins stuck in it are properties, and the pincushion sort of holds them all together. If the brown-ness of the table is pushed into the corner, then so is the 4-leggedness, the hardness, and so on. But, what is the pincushion???

Descartes says that the substratum is “extension”. By this, he simply means something like “extended in space; has length, width, and height.” For, as he melts the wax, the one quality that the wax ALWAYS keeps is the property of being extended in space. Thus, perhaps the table, when stripped of all its properties, is mere extension?
Side note: Descartes thought that the nature of matter was to be extended in space. But, he went further and said that matter and extension were one and the same thing. This meant that, anywhere there is extension, it is absolutely filled with matter. There is no such thing as empty space on Descartes’ view.

2. Bundle Theory: The absurdities of the above have led many to suggest that there is no substratum at all. What is the point of this property-less, unobservable, unfathomable thing? Can an indescribable, property-less, unobservable thing even BE a thing? Or isn’t it, rather, NOTHING? If all we ever observe are an object’s properties, perhaps the object just IS a set of properties (a “bundle” of them).

On bundle theory, the table JUST IS the collection of the properties ‘brown’, ‘hard’, ‘rectangular’, ‘four-legged’, and so on.

Problem: If objects are just collections or sets of properties, then it doesn’t seem that they could survive changes like the wax clearly does when heated (or the table when painted). For instance, compare the following two sets:

\{1, 2, 3, 4\} \quad \{1, 2, 3, 5\}

Are they the same set? Of course not! They have different members. But, then, very few objects survive for any extended period of time. Consider: When you stand up, you will no longer have the property of ‘being seated’. Other properties of yours are often changing too. Sometimes you are fast, or slow, or heavier, or lighter, or happy, sad, tired, frightened, and so on. If the identity of a collection changes whenever its members change, then you are not the same “bundle” when you trade in the property of sitting for standing (and therefore not the same object).

Reply: Perhaps we could just say that what we perceive to be individual objects are really just a SERIES of bundles over time. If you paint the table white, the new bundle no longer includes the property of brownness, but it includes all of the other properties that the old bundle had. Similarly, if you stand up, the new bundle no longer includes the property of sitting, but it includes pretty much all of the properties that the old bundle included. Perhaps so long as there is a sort of continuity from one bundle to the next, we can consider it to be the same object? [We will discuss the topic of identity over time in more detail, later in the semester]

Another Problem: What about identical twins? It seems that they have exactly the same set of properties. That is, the bundle of twin-1 seems to be the bundle of twin-2. (or perhaps, consider two identical ball-bearings fresh off of an assembly line). [It’s true that
no two objects have EXACTLY the same properties—for instance, even two ball-bearings might differ ever so slightly in their atomic structures—but let us consider two objects whose properties ARE the same.]

Reply: Still, two twins or two ball-bearings will have different RELATIONAL properties. Relational properties are those like ‘taller than’, ‘next to’, ‘inside of’, and so on. For instance, one twin might have the property of ‘being 5 feet from the door’, while the other has the property of ‘being 6 feet from the door’. So, they are different bundles.

Objection: But, imagine a world containing ONLY the two ball-bearings and nothing else. Now it seems that the two balls do not even differ in their RELATIONAL properties (since there is nothing else to be related to). [We will discuss this last objection in much more detail later in the semester, when we read Max Black’s, “Identity of Indiscernibles”.]

In class, we performed this exercise: Imagine that we are observing two qualitatively identical forks:

If objects are merely bundles of properties, then the two objects here are:

**Bundle:**
- Fork-shape
- Shiny
- Metallic
- Solid
- On my left

**Bundle:**
- Fork-shape
- Shiny
- Metallic
- Solid
- On my right

But, now imagine that I swap the places of the forks, like this:
The two bundles in THIS pictur are:

**Bundle:**
Fork-shape
Shiny
Metallic
Solid
On my left

**Bundle:**
Fork-shape
Shiny
Metallic
Solid
On my right

But, these are the same bundles as before!!! Intuitively, the objects have swapped places. On bundle theory, however, it seems as if it is the same object on the left in both cases. The substratum view can account for this change easily. Sure, the object on the left has the same PROPERTIES in both sets of pictures—but the substrate of the first fork on the left is different than the substrate of the second fork on the left.

*Side note: But, if substrata have no properties, how can one substrate be “different” than another?? There seems to be no criteria with which we could individuate them.*