The Identity of Indiscernibles

1. Numerical vs. Qualitative Identity: The word 'identity' is used in a very specific way in philosophy—and it's a little different than the way that people use it elsewhere.

We often use the word 'identical' to simply mean 'looks the same.' For instance:

- Ashley and Mary Kate are identical twins.
- Your iphone is identical to mine.
- The look on your two faces is identical right now.

That's not how WE are going to use the term 'identical.' In philosophy, 'identical' means 'is one and the same object'. For instance:

- Mark Twain is identical to Samuel Clemens.
- The actual capitol of Virginia is identical to Richmond.
- The man who actually invented the bifocals is identical to Benjamin Franklin.

Here, when we say **identical**, we mean, e.g., that Mark Twain is **one and the same individual** as Samuel Clemens. To differentiate these two uses, philosophers often say that Ashley and Mary Kate (two twins) are QUALITATIVELY identical, while Mark Twain and Samuel Clemens are NUMERICALLY identical.

From here on, when I use the term 'identical', I will mean **numerically identical**.

2. The Identity of Indiscernibles: One of the foundational principles of philosophy is that no two objects can have all and only exactly the same properties. So, for any two objects, there must be at least one difference between them. No two individuals are exactly alike. This principle is generally credited to the philosopher, Leibniz. He writes,

> **The Identity of Indiscernibles:** "In nature, there cannot be two individual things that differ in number alone. For it certainly must be possible to explain why they are different, and that explanation must derive from some difference they contain." From *Primary Truths* (1686). In other words:

If "two" things are absolutely indiscernible, then they are numerically identical.

It is impossible for two numerically distinct objects to have all and only exactly the same properties as one another.

If there is no difference in properties, then there is no difference in identity.

For instance, if you provide me with a complete description of Richmond, and then you provide me with a complete description of the capitol of Virginia, and your descriptions do not differ any way whatsoever, I must conclude that Richmond IS (numerically identical to; one and the same city as) the capitol of Virginia.

[*Note that this was the intuition that drove us to think that there could be TWO things present when you look at a statue—**the statue AND the lump of clay**. For, how can the statue be a distinct object from the clay if they share all and only exactly the same matter, arranged in exactly the same way, and exist in exactly the same place, at the same time? To suggest that BOTH objects exist would seemingly entail that there are TWO objects present which are absolutely indiscernible—a suggestion which we deemed an Absurdity.*]

[Side Note: A related (but distinct) principle is *The Indiscernibility of Identicals*:

If "two" things are numerically identical, then they are absolutely indiscernible.

If there is no difference in identity, then there is no difference in properties.

For instance, if you tell me that Samuel Clemens IS Mark Twain, then I can automatically infer that, if Mark Twain is 6' tall, then so is Samuel Clemens. If Mark Twain wrote Huckleberry Finn, then so did Samuel Clemens. And so on. If they really are one and the same person, then the "two" of them must share ALL of their properties in common.]

This latter principle (the Indiscernibility of Identicals) is uncontroversial. However, the Identity of Indiscernibles is very controversial. Let's see why.

3. Max Black's Balls: Is it logically possible for two distinct things to have all of their properties in common? Max Black pens a dialogue between A and B (I'll call them Argle and Bargle, following Lewis's dialogue on holes), to explore this question.

Argle would say 'No'. Thus, Argle is in favor of the Identity of Indiscernibles; i.e., Argle believes that any "two" objects which have all of their properties in common would necessarily be really just ONE single object. So, for any two (numerically distinct) objects, there must ALWAYS be at least one difference between them—i.e., some property which one has, but the other lacks.

Bargle disagrees. So, throughout the dialogue, Bargle is trying to demonstrate that there COULD be two numerically distinct objects which have all of their properties in common. If such a scenario is logically possible, then the Identity of Indiscernibles is false. Here's a brief synopsis of their discussion:

Imagine two iron spheres, two miles apart. Each has a diameter of one mile, they are the same temperature, same color, and so on. Is it possible for them to have all and only EXACTLY the same properties as one another while remaining TWO distinct things?

Argle says: Sure! Call them 'a' and 'b'. At the very least, a would have the property of being identical to a, and being NOT identical to b. Similarly, b would have the properties of being identical to b, and NOT identical to a—both properties that a lacks.

<u>Problem:</u> This seems no more interesting than to say that one sphere is identical to itself and non-identical to the other. But, BOTH have these properties. We can't IMPOSE little labels on them, 'a' and 'b'. It's not as if they have some markings on them which label them in these ways.

Argle: Well, they'd also have different RELATIONAL properties. For instance, for instance, perhaps one sphere has the property of being 10 miles from the Eiffel Tower, while the other has the property of being 12 miles from it.

<u>Problem:</u> But, imagine that the two spheres are the ONLY things that exist. In that case, each one would only have the property of being two miles from an iron sphere, etc. In this possible world, they'd have exactly the SAME relational properties!

Argle: But, call one sphere 'Castor' and the other 'Pollux'. Castor has the relational property of being two miles from Pollux, while Pollux has the relational property of being two miles from Castor.

<u>Problem:</u> No. We can't smuggle in these names for the two spheres. There are no observers in this imagined world, and no names or labels. Sure, I can imagine an observer ENTERING the imagined scenario, and POINTING to one and calling it 'Castor', or perhaps even putting a little mark on one to distinguish it from the other. But, the moment you've done that, you are no longer imagining a scenario where there are ONLY the two spheres and nothing else.

[*Note: They don't explicitly explore the following, but they hint at these options.*]

Argle: Okay, but this entails that they have different MODAL properties. For, IF an observer WERE to enter, then the two objects WOULD be distinguished by that observer. For instance, one would be on his left, and the other would be on his right.

<u>Problem:</u> But, BOTH spheres have exactly the same modal properties too. (For instance, there is a possible world where an observer enters and sees one on his right and the other on his left. But, there is ALSO a possible world where the REVERSE happens.)

Argle: Ah, but, this highlights the fact that the two spheres occupy two distinct regions of space. (For, in one of those two possibilities, the observer would need to observe them from ONE side of the two spheres, and in the other possibility, he'd need to observe from the OTHER side of them.) So, perhaps one sphere has the property of occupying spatial region R_1, while the other has the property of occupying R_2.

Problem: That would only work if spatial regions were THINGS. Perhaps space is merely relational. But, even if spatial regions were THINGS, this would only push the question back one level. For, now we seem to be suggesting that there are two numerically distinct things, spatial regions R_1 and R_2, and these two things seem to be indiscernible. So, unless you can identify some property that R_1 has which R_2 does not, the point still stands: It is logically possible for there to be two things that are absolutely indiscernible.

Conclusion: As you can see, defending the Identity of Indiscernibles is rather difficult. If the two-sphere world is logically possible (i.e., we can conceive of a world where there are TWO objects that have ALL AND ONLY EXACTLY THE SAME PROPERTIES), then it seems that the Identity of Indiscernibles is false.

[*Good news for the statue and the clay? Perhaps this is good news. If the Identity of Indiscernibles is false, then it IS possible for two numerically distinct objects to have all and only exactly the same properties. In which case, it is NOT absurd to suggest that the statue AND the lump of clay BOTH exist—or at least, saying so does not violate this axiom.*

Bad news? On the other hand, we might insist that, while the principle is not a NECESSARY truth, it nevertheless holds true in the ACTUAL world, because the actual world lacks the sort of perfect symmetry imagined in Black's thought experiment.

Good news? On the other hand, if we allow MODAL properties to count, then perhaps the statue and the lump of clay can be numerically distinct WITHOUT violating the Identity of Indiscernibles—because, for instance, the statue has the modal property of not possibly surviving a squashing, while the lump of clay lacks this property. What do you think?]