## Good critical thinking about analogical reasoning and concept formation

**People** 



The number of analogies that are required to sufficiently describe an object depend on how complex the object is. For example, you may need to use one analogy to describe the object's appearance, but another analogy is necessary to describe the object's function. For most objects that we come across in real life, one or two analogies is usually sufficient to accurately portray them. An object such as a vase can be compared to one other object like a flower pot and that analogy is usually enough to explain the object's appearance and function.

One object that may need multiple analogies to be described is an atom. An analogy that people often use to describe an atom is our solar system. The nucleus of the atom can be compared to the sun at the center of the solar system, whereas the atom's electrons can be compared to the planets that orbit around the sun. This is a useful way to conceptualize an atom, but it is not entirely accurate. In reality, the electrons of an atom do not orbit around the nucleus. Rather, they surround the nucleus like a fog.

An analogy can also be used to describe actions as well as objects. One example is to say that a relationship begins to "thaw" when the people in the relationship start to become distant to one another.

An analogy that is commonly used to comfort a person after he or she has broken up with their partner is to say that there are "many fish in the sea." That means that there are a lot of people in the world and eventually, we all have a chance to find someone who is special enough to be in a romantic relationship with.