

Writing Assignment 4: Dualism

1 What is Dualism?

Generally speaking, Dualism is idea that, in some particular domain, there are two fundamental kinds or categories of things or principles. What I am introducing today is within the domain that concerns the philosophy of mind. Dualism in the philosophy of mind is the theory that the mental and the physical, or mind and body, or mind and brain, are radically different kinds of thing [1].

In particular, mind-body dualism claims that neither the mind nor matter can be reduced to each other in any way, and thus is opposed to materialism in general, and reductive materialism in particular. Mind-body dualism can exist as substance dualism which claims that the mind and the body are composed of a distinct substance, and as property dualism which claims that there may not be a distinction in substance, but that mental and physical properties are still categorically distinct, and not reducible to each other. This type of dualism is sometimes referred to as "mind and body" and stands in contrast to philosophical monism, which views mind and matter as being ultimately the same kind of thing.

The mind-body dualism stems from the mind-body problem: what is the relationship between mind and body? Human beings, as a kind of intellectual creature, have both physical and mental properties. On the one side, human have physical properties like weight, shape or color. On the other side, they also have mental properties, which we do not attribute to typical physical objects. These properties involve consciousness (including perceptual experience, emotional experience, etc.), intentionality (including beliefs, desires, etc.), and one crucial point that mental properties are different from physical ones is that they are possessed by a subject or a self, by which I mean they are private while physical properties are public.

The mind-body problem concerns the relationship between these two sets of properties. The problem breaks down into a number of components, and different aspects of the problem arise for different aspects of the mental properties, such as consciousness, intentionality, the self.

The seemingly intractable nature of these problems have given rise to many different philosophical views:

- Materialist views state that, despite appearances to the contrary, mental states are just physical states. Especially, the computational theory of mind is one example of how materialists attempt to explain how this can be so.
- Idealist views state that physical states are really mental. This is because the physical world is an empirical world and, as such, it is the inter-subjective product of our collective experience.
- **Dualist** views state that the mental and the physical are both real and neither can be assimilated to the other.

2 Varieties of Dualism

There are mainly three ways of dividing up kinds of dualism. The most common categories lighted upon are substance and property, giving one substance dualism and property dualism. There is an important third category namely predicate dualism.

- **Predicate Dualism:** predicate dualism is the theory that psychological or mentalistic predicates are (a) essential for a full description of the world and (b) are not reducible to physicalistic predicates. One typical example is the Water and H_2O , I am going to discuss it in the next section.

- **Property Dualism:** Whereas property dualism says that there are two essential kinds of predicates in our language, property dualism says that there are two essentially different kinds of property out in the world. Specifically, in the case of mind, property dualism argues that the qualitative nature of consciousness is not merely another way of categorizing states of the brain or of behaviour, but a genuinely emergent phenomenon.
- **Substance Dualism:** this one is somewhat complicated and relates with two important concepts. A substance is characterized by its properties, but, according to those who believe in substances. it is more than the collection of the properties it possesses, it is the thing which possesses them. If one thinks that the owner of the immaterial states is something quite over and above the states themselves, and i immaterial, as they are , one will be a substance dualist.

Common sense tells us the mind and body interact, from where the dualism varies to another three, namely interactionism, epiphenomenalism and paralleism.

There exist a number of arguments for Dualism, and I am going to mention them briefly here. They are (1) The knowledge argument against Physicalism, (2) the argument from Predicate Dualism to Property Dualism, (3) The Modal Argument, (4) Arguments from personal identity, (5) the Aristotelian argument in a modern form. Several problems also accompanies with Dualism: (1) The Queerness of the mental and (2) the unity of the mind.

3 Dualism, and Yin Yang

From reading the mind-body Dualism materials, it is a quite philosophical heavy topic to me. However personally I think I am a Dualist who believes that everything in the world, has an opposite concept to it, due to the influence from the Chinese physical dualism (Yin and Yang) [2].

The opposition and combination of the universe's two basic principles of yin and yang is a large part of Chinese philosophy, and is an important feature of Taoism, both as a philosophy and as a religion. Yin and yang is also discussed in Confucianism, but to a lesser extent.

Some of the common associations with yang and yin, respectively, are: male and female, light and dark, active and passive, motion and stillness. The yin and yang symbol in actuality has very little to do with Western dualism; instead it represents the philosophy of balance, where two opposites co-exist in harmony and are able to transmute into each other. In the yin-yang symbol (Fig. 1 there is a dot of yin in yang and a dot of yang in yin. This symbolizes the inter-connectedness of the opposite forces as different aspects of Tao, the First Principle. Contrast is needed to create a distinguishable reality, without which we would experience nothingness. Therefore, the independent principles of yin and yang are actually dependent on one another for each other's distinguishable existence. The complementary dualistic concept in Taoism represents the reciprocal interaction throughout nature, related to a feedback loop, where opposing forces do not exchange in opposition but instead exchange reciprocally to promote stabilization similar to homeostasis. An underlying principle in Taoism states that within every independent entity lies a part of its opposite. Within sickness lies health and vice versa. This is because all opposites are manifestations of the single Tao, and are therefore not independent from one another, but rather a variation of the same unifying force throughout all of nature.

4 Dualism, as Related to My Research Topics

The research of Computer Vision relates to the computational theory of mind, which as I mentioned before, is a typical example of Materialism instead of Dualism. However, in some sense, the research conducted is somewhat different from the spirit of the computational theory of mind. People nowadays concerns more on the physical side of the perception problem, examples are what physical features distinguish object classes,



Figure 1: The yin and yang symbolizes the duality in nature and all things in the Taoist religion.

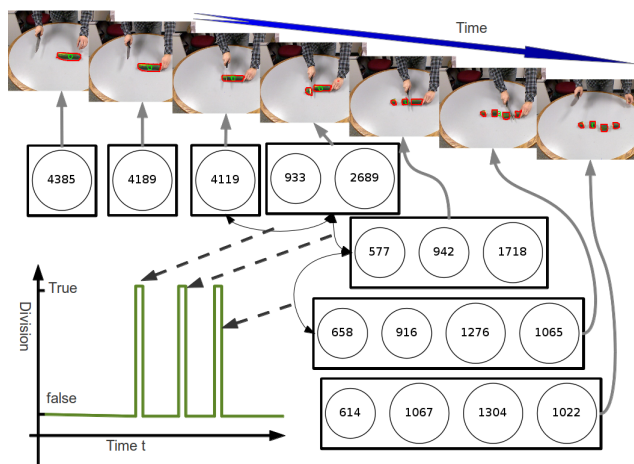


Figure 2: Understand the “Divided” concept.

what motion pattern characterize a specific action like waving, etc. However, they have mental side of meanings which is more complicated.

By reading the **Predicate Dualism**, especially the example of Water and H_2O , apparently perception is one example of the science that is not reducible in the why the term “Water” reduces to H_2O . What makes an apple an apple? You can say physically, it means that group of objects which normally have color green or red, and normally in round shape with a stem connects to it. However, the concept “Apple” in each individual’s mind is different. For example the flavor of an apple is a sensation that cannot be expressed by explicit physical properties, and it is private. Will you think an apple with pear flavor is still an apple? And how to define the flavor of apple?

Another example is action, especially the manipulation actions I am attempting to develop programs to understand. Apparently manipulation actions like “Cut”, there is no particular description, using the language of physics or chemistry, that would explain it like H_2O to water. Consider of what kind of movements involved, or what kind of tools used, or even what object is under the influence of the action “Cut”, are those physical terms defines the action “Cut”? The answer is NO. “Cut” is an action that “separate an object into pieces” from English dictionary, but how to define an object is separated? It again relates to mental status of the observer and thus irreducible to physical descriptions. However I am trying to find these properties of the manipulation action that has clear physical representations, like the consequence of “Cut”: Object Divided. Fig. 2 is an example of a program understanding “Division” by tracking and segmentation.

5 References

- [1] Robinson, Howard, “Dualism”, The Stanford Encyclopedia of Philosophy (Winter 2011 Edition), Edward N. Zalta (ed.), <http://plato.stanford.edu/archives/win2011/entries/dualism/>.
- [2] Muller, Charles. “Daode Jing”. Retrieved 2012-09-04.