### Topic III.

#### Introduction

Through the course of this essay, we shall examine Frege's viewpoint. We will consider the domain of representations and the domain of the external world and examine how they differ with each other. We will then attempt to extend our argument to the domain of thoughts. We will connect this domain with the previous two domains and conclude by mentioning an unanswered question about thoughts, whose resolution may give us a better understanding of thoughts.

#### The domain of the external world and the domain of representation

Let us begin by investigating how humans get knowledge about the world around them.

Our most rudimentary "information-gathering devices" are our sense organs. Consider a small girl playing with her dog. She sees the dog with her eyes, i.e. her eyes gather visual information such as the wavelength and the intensity of the light waves reflected from the dog. Similarly, her other sense organs gather different kinds of information about the dog (like auditory - hearing, olfactory - smelling, tactile - touching). Thus, this girl used her **senses** to gather information about the **external world** (the dog). The nature of the external world is such that it can be **perceived by** the **senses**.

Now consider what would happen to the information gathered by our sense organs. The light waves gathered via our eyes would fall on our retina and form an "upside-down" image of the dog. Consequently, this "upside-down" image would be flipped and we would now have a "right-side up" image with us. Also, the source or the "spatial location" of the auditory information of the dog's barking would be integrated with the visual information of the dog moving its mouth, thus giving us the understanding that the sound of barking is coming from the dog's moving mouth. This **processing** and **integrating** of sensory information would give a mental image, i.e. a **representation** of the dog in front of us. Notice that this **representation** depends on sensory information of **the external world**. And that sensory information, in turn depends on the existence of some **external object** that is to be observed. Similarly, the representation also depends on the existence of an **observer**; a "supporting subject" in whose mind the representation is formed. The observer is aware of the representation, i.e. he is consciously holding it in his mind. Thus, the **representation cannot exist independently** of some concrete **external object** or **supporting subject**.

A natural question that arises from this discussion is that whether the **representation** can be perceived by the senses? Can we actually "see" this representation or observe it indirectly by modern technology like brain electrodes or brain scanning done via magnetic resonance imaging (MRI)? Or even if such "**external means of observation**" are not possible, can there be some other "**internal entity**" which can "see" the representation.

Some philosophers have responded that there exists such an internal entity – a *homunculus* (a "little man") who exists in our mind and observes our representations. But this possibility raises further questions. What happens after this homunculus observes our representations? How are *his* observations processed? Who/ what processes his observations? One response has been to consider the existence of another homunculus – a "homunculus within a homunculus" which does the processing. However, this just takes the question one step back, leading us to a infinite regression of "a homunculus within a homunculus within a..."

Another way to tackle this problem is to admit, as Frege has done, that the mental representation "*cannot be perceived by the senses*". We establish a separate domain of representations. The domain of representations **cannot be perceived by the senses**. Also, as discussed above, this domain of representations cannot exist independently of some **concrete external object** that is observed. It also depends on the observer who is consciously holding the representation in his mind, i.e. - a **supporting subject**, the **consciousness of which it depends** on.

Let us now consider the external world again. As previously discussed, we note that the **external world** can be **perceived by our senses**. But we still have one crucial question to deal with. Does this external world exist independent of some observer; some *supporting subject*, the *consciousness of which it depends* on? In short, is there an objective reality? Does a leaf fall down in the woods if there is no one there to observe it? Can we be sure of the existence of the external world if we aren't around to observe it?

Let us consider various approaches to this question. An idealist (maintaining a position similar to that of Descartes) considers the possibility that the entire world around us is an illusion. We may be fooled by a malevolent demon or this illusion is something that we have to overcome (like the ancient Indian concept of *Maya*). Or perhaps we are all "brains in a vat", i.e. we may be suspended in a jar and provided with electrochemical stimuli to fool us into thinking that the world around us exists. How would this idealist attempt to resolve this possibility that she is being fooled? She might accept that she is being fooled, but would bring attention to the fact that it is "**she**" that is being fooled. There exists "she", some conscious entity that can be fooled and the only thing whose existence that she can be sure of, is that conscious, thinking entity. This is what led Descartes to famously say – "*cogito ergo sum*" i.e. – "*I think, therefore I am*". An idealist holding this position might answer our origin question by admitting that an objective reality does not exist and the only thing whose existence one can be sure of, is oneself.

A realist would hold a differing view, admitting that an objective reality exists. He would claim that the leaf in the forest does indeed fall down, irrespective of the presence of an observer. He might respond to the doubt raised before, ("How can we know that we're not being fooled?") in the following way – He would say that while we don't know whether we **are** being fooled, we are equally unsure of whether we **are not** being fooled. We proceed to use Occam's razor (when confronted with two hypotheses that can explain the state of affairs in an equally

convincing manner, we chose the hypothesis having the least number of assumptions) and hold the existence of an objective reality. He could also say that the burden of proof rests on the person who is claiming that everything is an illusion (an objective reality does not exist).

Frege maintains that an objective reality (the external world) exists. He establishes an independent domain of the external world. This domain is such that it "*needs no supporting subject, on the consciousness of which it depends*". This is supplemented with our previous discussion where we noted that the domain of the external world can be **perceived by the senses**.

We can summarize our discussion of Frege's argument as follows -

- 1. The domain of representations is such that
  - a. It cannot be perceived by the senses (of an observer)
  - b. It cannot exist independently of an conscious observer (a supporting subject, the consciousness of which it depends on)
- 2. The domain of the external world is such that
  - a. It can be perceived by the senses (of an observer)
  - b. It can exist independently of an observer, conscious or otherwise (it does not need a supporting subject, the consciousness of which it depends on)

Now that we have dealt with the domain of representations and the domain of the external world, let us come to the third domain that Frege mentions – the domain of thoughts.

### The domain of thoughts

We ask the question - how does our mind deal with the thousands of representations that it forms on a daily basis? How does it connect different representations together? We will attempt to answer these doubts by continuing with our previous example of the girl playing with her dog. When we left the girl, she had formed a representation of the dog her mind. She was aware of that representation, consciously holding it in her mind. She observed that her dog has certain features like a wagging tail, hairy skin, a deep bark, etc. Over a period of time this girl would grow up and see various dogs around her. She would see dalmations, labradors, pugs, etc. She would form representations of these dogs in her mind. She would observe that all of these dogs have certain **common** features like a wagging tail, hairy skin, a deep bark, etc. This girl would now **abstract** these **concrete** common features to form the **concept** of a dog. All of these individual entities (the labrador, the dalmations, the pug, etc) would be united under a single **identity**, a concept called "dog". This concept would enable her to recognize a poodle as a "dog", even if she hadn't seen a poodle before. She had never formed a conscious representation of a poodle in her mind before. Yet, she was able to relate her abstract concept called "dog" with a concrete entity (the poodle in front of her), even though she hadn't ever formed a conscious representation of that entity before.

Now that we dealt with how representations are connected to form concepts, let us deal with thinking. Consider the case where our girl holds the following sentence in her mind – "Dogs eat bones". In this case, she is not referring to a particular dog or a particular bone. She is not referring to the specific representations of dogs or bones. She is connecting the concept of a dog with the concept of a bone. Now consider the case of when we suddenly think of something or when an idea "clicks" us or when something goes on at the "back of mind". For example, the girl suddenly thinks of a pink bone. Again in this case, she has connected the concept of pink with the concept of bone. However, this connection is not done **consciously.** The girl is not aware of this connection. In other words, this connection occurs in her subconscious mind. A similar situation may occur when she is dreaming. The above example let us to see how thoughts may occur via the connection of concepts. However, unlike representations, the person who is having those thoughts may or may not be conscious about them. Thoughts, unlike representations are not restricted to our conscious mind. We may or may not be explicitly aware of them. This is what might have prompted Frege to say that thoughts do not need "*any supporting subject, on the consciousness of which (they) depend*".

We can summarize our above discussion as follows -

1. Specific representations are connected and integrated to form concepts

2. Unlike representations, concepts do not require the immediate presence of a concrete external entity

3. We are aware of our representations, i.e. representations occur in the conscious mind

4. Thoughts involve the connection of concepts

5. Thoughts may or may not occur in our conscious minds. The domain of thoughts does not need a *supporting subject* i.e. an observer who is conscious about his thoughts. This could explain the phenomenon of dreaming or "sudden" thoughts.

Now that we dealt with how the domain of thoughts is different from the domain of representations, we recall our previous argument of how representations cannot be perceived by our sensations. We can extrapolate that argument by saying that since thoughts are formed by the connection of concepts, which have in turn been formed by the connection of representations, the **domain of thoughts cannot be perceived by the senses**.

However, "Can thoughts be perceived by senses?" remains an open question of modern cognitive science which is best illustrated in by the following analogy. Consider a large building which you are observing from the outside. All you can see is that when a meeting is going on, a certain room lights up. When it's lunch time, a different room – the cafeteria lights up and so on. You also know that the people in the office can communicate via a certain language. Now consider the building as an analogy to the brain. The different rooms as different brain regions. The different people as the neurons. The language of the people as the

electrochemical signals and the neurotransmitters. But what we're still investigating today is how thoughts (a connectivity of concepts) emerges from the electrochemical signals are neurotransmitters.

Exploring this possibility will give an insight into whether thoughts can be perceived by our senses. We shall leave this question as an exciting and unanswered possibility to be tackled by the scientists and philosophers of this century.

#### Conclusion

Through the course of this essay, we examined Frege's viewpoint. We considered the domain of representations and the domain of the external world and examined how the differed with each other. We considered two main points of interest – perception by senses and existence independent of a conscious observer. We then attempted to extend our argument to the domain of thoughts. We connected this domain with the previous two domains and concluded by mentioning an unanswered question about thoughts, whose resolution may give us a better insight into what thoughts really are.