

“MEANING AIN’T JUST IN THE HEAD”: FROM MEANING TO REFERENCE

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Abstract

The concept of ‘Reference’ in Hilary Putnam’s works bears critical conceptual importance. It certainly comes to the forefront in the second phase of his career, when he shifts from being an avowed ‘Realist’ to becoming its critic. This criticism phase is generally termed the internalist phase, wherein he proposed ‘Internal Realism’, which argued against the Metaphysical realist worldview or Realism with a capital R. One such criticism that Putnam posed against Metaphysical Realism is that ‘meanings in our head do not determine reference’ or the extension of a term. Instead, reference is determined by environmental as well as social factors. The environmental factor predominantly implies ‘facts’ or objectivity involving the nature of things, whereas the social factor involves the division of linguistic labour. Putnam’s remarkability as a philosopher and thinker comes full swing with his groundbreaking concept of ‘reference’ in his works such as Reason, Truth and History (1981), Representation and Reality (1989) and several essays. This academic paper aims to present a detailed trajectory of the concept of "reference" as found in the works of philosopher Hilary Putnam. The paper will initially endeavour to identify the specific contexts in which the term "reference" appears, focusing on Putnam's critique of the traditional theory of meaning. Subsequently, the paper will explore the intricate connections between the social and environmental dimensions of meaning articulated by Putnam.

Keywords: *Reference, Meaning, Division of Linguistic Labour, Environment, Internal Realism*

Introduction

Hilary Whitehall Putnam (1926-2016) stands as an intellectual colossus, a seminal philosopher whose career spanned an impressive six decades. Born in Chicago, Illinois, Putnam studied philosophy at the University of Pennsylvania and Harvard University, where he was a student of the renowned philosopher W.V. Quine. After teaching at several universities, Putnam eventually settled at Harvard, becoming a University Professor. During this time, he embarked on a remarkable journey of critical engagement and rethinking, constantly challenging and evolving his philosophical positions and queries. Indeed, the question of realism and the connection between

language and the world has remained constant in his variegated philosophical enquiries.¹ Putnam relentlessly explored this intricate question, examining the various facets of realism and its implications for our understanding of the world.

The present paper is solely concerned with Putnam's theory of reference, as developed in his internalist phase. It begins by identifying the specific contexts in which Putnam employs the term 'reference,' particularly in his critique of the traditional theory of meaning. It will examine Putnam's arguments against the correspondence theory of reference and his rejection of the idea that meaning is determined solely by the speaker's intentions. Subsequently, the paper will explain that reference is determined by social and environmental factors rather than what goes inside our heads.

The Traditionalist Account

One can locate Putnam's concern regarding the nature of 'reference', particularly in his disillusionment with the traditional theory of meaning and his subsequent criticism of 'Metaphysical Realism' in the mid-1970s. Let us briefly explain what Putnam means by the traditional theory of meaning and its implication on reference. The traditional theory of meaning states that reference is determined by what happens 'inside' or within our heads. Philosophers like Aristotle, Bertrand Russell, Gottlob Frege, and Rudolf Carnap, among others, have been identified by Putnam as traditionalists who carried forward this view in different forms and ways. Putnam identifies a severe problem with this theory, according to which meaning possesses the extension/intention ambiguity.² In one sense, meaning is equivalent to extension; in the other, meaning is equal to the intention of the term. Traditionalists also argue that understanding the words or knowing their meaning is a matter of being in an individual psychological state, i.e., meaning is private.

However, philosophers like Frege and Carnap have strongly disagreed with this form of psychologism. Instead, they argued that meanings are public rather than private, as different individuals can grasp the exact meaning of a term at different times and places. They also argued that meanings are 'abstract' entities. However, Putnam states that Frege and Carnap do not fully recover from the idea that grasping these abstract entities was still an individual psychological act, not a public or social affair.³

¹ Ben-Menahem, Yemima. *Hilary Putnam*. Cambridge University Press, 2005. 5

² Putnam, Hilary. "The Meaning of 'Meaning.'" *The Meaning of "Meaning"*, University of Minnesota Press, Minneapolis, 1 Jan. 1975, <https://conservancy.umn.edu/handle/11299/185225>. 145

³ Hilary Putnam, "The Meaning of 'Meaning,'" *The Meaning of "Meaning,"* January 1, 1975, <https://hdl.handle.net/11299/185225>, 134.

According to Putnam, the other implication of the traditional theory is that two terms with the same extension can differ in their intentions. Still, the reverse is impossible: two terms cannot have different extensions and simultaneously have the same intention. But what does this mean? Let us use Putnam's example as expounded in his paper 'The Meaning of "Meaning"' (1975). He uses two compound words: 'creature with a heart' and 'creature with a kidney'. These compound words refer to the same object or entity in the actual world. Thus, words have the same extension, although these terms have two different intentions, according to the traditional account. It means that the meaning (in the sense of intention) of the compound words 'creature with a heart' and 'creature with a kidney' differ. But they refer to the same thing; hence, the extension is the same. Hence, the meaning of the words in the sense of extension is the same, assuming that every creature with a heart possesses a kidney and vice versa. We can find a similarity in the words 'the evening star' and 'the morning star,' which Frege elaborated on in his seminal paper 'Sense and Reference' (1948). In his paper, German philosopher Gottlob Frege suggested that the expressions "the evening star" and "the morning star" seem to refer to two distinct celestial objects visible in the sky at different times of the day. However, The compound words 'the evening star' and 'the morning star' have the same referent, i.e. the planet Venus, while they differ in their sense. 'Sense' is typically defined by Frege as the mode of presentation. He suggests that the sense of the term determines its reference. Putnam reads Frege's use of 'sense' as the intention of the term and 'reference' as its extension.

From the above discussion, Putnam poses two thoughts intrinsically associated with the traditionalist theory of meaning, which he thinks has yet to be adequately challenged prior to him. They are:

- (1) Firstly, they suggest that knowing the meaning of a term is being in a particular psychological state;
- (2) Secondly, they also maintain that the meaning of the word or the sign determines the extension of the term, suggesting that there is an equivalence or sameness between intention and extension.⁴

Going against the traditionalist account, Putnam provides a radical claim that meaning is not an individual psychological affair that determines the extension or

⁴ Putnam, Hilary. "Meaning and Reference - Volume 70, Issue 19, November 1973." *The Journal of Philosophy*, 9 Mar. 2021, https://www.pdcnet.org/jphil/content/jphil_1973_0070_0019_0699_0711.700.

reference of the term. Instead, reference (meaning in the sense of extension) is determined by myriad social, linguistic, cultural and environmental factors.⁵

Are Meanings Just in the Head?

Putnam provides us with the 'Twin Earth Hypothesis' to justify his criticism that the traditional concept of meaning and reference is false and has its basis in some sort of narrow psychologism. In this hypothesis, he asks us to suppose that somewhere there exists a Twin Earth, similar to Earth. Our twins or doppelgangers occupy Twin Earth. They speak the same English as we do on Earth and have similar mental or psychological states. The only difference between these two planets is that the substance they (Twin Earthians) refer to as water has a different chemical composition. It is more complex than H₂O and hence abbreviated as XYZ. He maintains that under similar conditions of pressure and temperature, water in Twin Earth and Earth behave similarly.

Also, in Twin Earth, XYZ fills all the lakes, rivers and rains XYZ. Then he supposes that a spaceship from Earth visits the Twin Earth. Initially, the crew would assume that water on Twin Earth and Earth has the same meaning. But later, upon further investigation, it would have been made pretty clear that "On Twin Earth, the word 'water' means XYZ."⁶ Similarly, when a spaceship arrives from Twin Earth to visit Earth, they would assume that water on Earth bears the chemical composition 'XYZ', but eventually understand that "On Earth, the word 'water' means H₂O."⁷ From the above situation, we can conclude that the meaning of water in the sense of extension is different. Therefore, whenever Earthians and Twin Earthians utter 'water', they refer to two different substances.

In the above scenario, Putnam assumed that the entire action occurred in 1950. Now, he shifts the whole scenario to 1750, when the chemical composition of water was yet to be discovered on Earth; likewise, the Twin Earthians were ignorant about the composition of their water as XYZ. He also introduces two characters, Oscar₁, who resides on Earth and Oscar₂, in Twin Earth. Furthermore, these two characters are doppelgangers with the same mental and physical qualities. They speak similarly and look precisely like copies. Putnam now asks if the utterance of 'water' refers to the same thing. Putnam states that no matter their psychological state, Oscar₁ and Oscar₂ refer to two different chemical compositions when they use or consider the term

⁵ Ben-Menahem, Y. (2005). *Hilary Putnam*. Cambridge University Press. 18.

⁶ Putnam, Hilary. "Meaning and Reference - Volume 70, Issue 19, November 1973." *The Journal of Philosophy*, 9 Mar. 2021, https://www.pdcnet.org/jphil/content/jphil_1973_0070_0019_0699_0711. 701.

⁷ *Ibid.*, 701.

‘water’. From this situation, Putnam infers that the extension of a term does not merely depend on the psychological state. To firmly ground his viewpoint against the traditionalists, he considers another instance.

Let us consider two different metals, aluminium and molybdenum, located quite disparately in the periodic table. These metals bear a strong resemblance; one cannot quickly tell them apart. Therefore, the chances of confusion are also high. We can correctly detect the difference between the two metals only with the help of an expert. Their major difference is that aluminium is a widely used and easily extracted metal found on the surface of Earth, while molybdenum is rare. Only a metallurgist can differentiate between them. On Twin Earth, however, the opposite situation prevails. Now, Putnam asks us to make two important assumptions. First, we must suppose that aluminium accessories and utensils are used on Earth, and the term ‘aluminium’ refers to the metal aluminium. Second, we must suppose that on Twin Earth, utensils are made of molybdenum, and the word ‘aluminium’ refers to the metal molybdenum. Thus, Putnam asks us to switch the reference/extension for the words ‘aluminium’ and ‘molybdenum’ on Twin Earth. When a spaceship visits Earth from Twin Earth, the Twin Earthians would presume that the metal pots are made of molybdenum, which they call ‘aluminium’.

On the other hand, upon reaching Twin Earth, Earthians would presume that the word ‘aluminium’ refers to utensils made of aluminium metal. However, this is not the case. Unlike the layman, an expert/metallurgist from Earth can easily prove that Twin Earth's ‘aluminium’ pots and pans are made of molybdenum and vice-versa. Similarly, if Oscar₁ and Oscar₂, who share similar psychological conditions, speak the same Earthian English, are neither expert chemically nor metallurgically, and are in a similar mental condition when they say the word ‘aluminium’. But what becomes apparent once again is that the extension of the term ‘aluminium’ in the idiolect of Oscar₁ is aluminium, whereas, for Oscar₂, it is molybdenum. With the help of this example, Putnam makes it clear that the speaker’s psychological state does not and cannot determine the extension of the word uttered by the speaker. More importantly, it showcases that meaning is just not in the head.

The Division of Linguistic Labour

To justify that the extension of a term does not depend on an individual's psychological state, Putnam puts forward his sociolinguistic hypothesis that the meaning of a term is collectively determined through actual interaction and use. He also uses the phrase ‘the division of linguistic labour’ to suggest the same. But what does the hypothesis mean? Let us further de-entangle this with the help of an example. Putnam uses the metal ‘gold’ to explain this hypothesis.

First and foremost, Putnam assumes the sociolinguistic community to be a 'factory'. The factory is used as a metaphor. In this factory or community, 'gold' is considered a precious metal with financial and cultural significance. He then assumes that in this factory setup, one group's job is to wear gold, the other group sells the gold, and the third group determines whether the metal is gold. The first group possibly denotes the common man who wears gold, the second group are the jewellers, whereas the third could be referred to as the experts who can detect gold. Every group in this factory "acquires" the word gold in their vocabulary, but not everyone is liable to know the "method of recognising" gold⁸. These people who wear or sell gold can simply rely on the expert or the subset of speakers who have acquired the method to recognise gold.

From the above scenario, Putnam implies that each group acquires the word 'gold' and associates it with a contextual meaning depending on their use of the metal. They do not know the whole meaning of what gold stands for; they only know the 'meaning' in part, which is also true. Knowing 'part meaning' does not suggest these groups do not have any role to play in determining reference. This very division of meaning, or the labour employed by these groups, collectively helps us refer to the term 'gold', which Putnam terms 'the division of linguistic labour'. The division of labour means the labour given by these groups in knowing these features of gold through their interaction with gold. Hence, Putnam writes that the features that we consider present or contained in relation to a name, the necessary and sufficient conditions for the name 'gold' to be part of the extension, are present in the socio-linguistic community. This community is the body that collectively divides the labour of being able to know and employ different 'parts' or 'uses' of the "meaning" of the term 'gold'.

As such, according to Putnam's hypothesis, it becomes evident that, in a growing technologically advanced community, certain words carry relevant criteria that only a certain number of people can know, for example, steamship. This term is, therefore, subject to the division of linguistic labour, just like the term water or gold. The other speakers recognise these criteria only in a well-formulated, cooperative way. We can argue that the average speaker does not acquire the necessary methods to fix the extension of a term. Most importantly, Putnam states that individual psychological states do not determine the extension. Indeed, we come to understand that the speaker's community, which behaves as a collective linguistic body, determines or fixes the extension of a term. Let us consider the other factor involved in determining the reference of the term, namely, 'environment'.

⁸ Ibid., 705.

The Contribution of the Environment

The term 'environment' is used by Putnam in a specific way to denote the way things are or the raw facts of our nature, which plays a vital role in determining the reference. Putnam emphasises that the 'objective' reality exists independently of the thinking mind. This objectivity partly determines the reference. Take, for instance, the substance water. Ancient and mediaeval scholars believed water to be a pure substance of only one type of atom or molecule. This means that any bit of a pure substance will have the same chemical properties as any other. For instance, if we have a pure sample of water distributed in different containers, these samples will exhibit the same chemical properties.

Consequently, people two hundred years back and two thousand years ago expected the same behaviour from water as they expect now, after the development of modern science or the discovery of the molecular structure of water. People from different times or places will refer to the same substance, i.e., water when they talk about the word 'water' as it exhibits the same behaviour. Putnam writes, "The belief that any sample of a pure substance will exhibit the same behaviour as any other sample of the same substance is only one of the beliefs which help us to fix the reference of terms which refer to such substances..."⁹

If this is so, Putnam argues, we may suggest that in the Twin Earth thought experiment, the extension of the term 'water' in 1750 on Earth and Twin Earth was different even before the discovery of their microstructures, as water on both planets was made of different substances. Putnam writes, "Twin Earth water violates (and always violated) two conditions for being called "real" water: it neither has the same ultimate constitution as "our" water nor exhibits the same behaviour."¹⁰ We were simply unaware of water's extension as H₂O on Earth and XYZ on Twin Earth, prior to the discovery or presence of the experts. Therefore, without any inhibition, we may justifiably conclude that on both planets, the extension of the substance was different in 1750, and it was different in 1950 as well. The difference lies in the substance, i.e. water being a pure substance. This is the phenomenon that Putnam referred to as the contribution of the environment in his seminal work *Representation and Reality*.

We can similarly pick other natural kind terms to illustrate the same principle. Suppose the Earthians and Twin Earthians used the word 'cat' to refer to some sort of animal in 1750. Putnam writes that it could very well be possible that the mental representation of Twin Earthians when they utter the word 'cat' is similar to the mental

⁹ Putnam, Hilary. *Representation and Reality*. (Cambridge: MIT Press, 1988), 34.

¹⁰ *Ibid.*, 35.

representation of the Earthians when they talk about ‘cat’ although biologically they are different species. The mental representation is the same as that of the people who do not possess any knowledge about the biology of Earth and Twin Earth. But if we visit Twin Earth and realise that Earth cats cannot produce fertile offspring after mating with cats out there, then the average people, as well as experts, could easily identify that ‘cat’ does not have the same extension on both the planets. After scientific investigation, it can be more clearly demonstrated that Twin Earth cats and Earth cats do not have a standard line of ancestry, that perhaps the Twin Earth cats evolved from pandas whereas Earth cats are from felines. For Twin Earthians, cats found on Earth are not cats, and vice-versa.

We can also suppose that cats on Twin Earth are simply not any kind of animal, although they accurately resemble cats found on Earth. Their shape, behaviour and form are entirely the same. However, someone who is an expert confirms that Twin Earth cats are robots with artificial intelligence, being controlled by people from a different galaxy through sophisticated technology. Following this, we may satisfactorily confirm that the so-called ‘cats’ on Twin Earth are not cats that we Earthians recognise as cats. Neither can they be classified as what Earthians refer to as ‘animals’, as they are simply machines for us. However, Twin Earthians may argue that the term ‘animal’ refers to remotely controlled robots. Dogs, cats, lions, tigers, rabbits, and other animals are simply automatons without any intelligence of themselves or organic quality. Consequently, Earthians will realise that the term ‘animal’ does not mean the same species on both the Planets; on Earth, animals are natural inhabitants (biological species), whereas on Twin Earth ‘animals’ are non-living automatons.

In the preceding examples, it has been illustrated that the mental representation of the word ‘cat’ on Earth and Twin Earth can be qualitatively the same. Still, upon scientific investigation, it will be apparent that the extension is entirely different. This difference is brought about by the difference in substance itself and, in the case of biological species, the constituents of these species itself. Putnam writes,

The description given by both the Earthians and the Twin Earthians of X, where X is gold, or cats, or water, or milk, or whatever, maybe the same; the mental representations may be qualitatively the same; the description given by the experts at a given stage of scientific development may be the same; but it may turn out, because of the difference between the Earth and Twin Earth environments, that the referents are so different that Earth speakers would not regard the Twin Earth gold as gold at all, or regard the Twin Earth water as water at all, or regard the Twin Earth cats as cats at

all, etc. Meaning is interactional. The environment itself plays a role in determining what a speaker's words, or a community's words, refer to.¹¹

Thus, we can conclusively argue that Putnam through his various thought experiments and hypothesis has harboured a strong criticism against the traditionalist account of meaning and reference. Thus, stating, what goes on inside our head does not determine the reference of the term. Simply put, Putnam showcases, that intention does not fix the extension of the term.

Conclusion

It is clear from the following paper that Putnam privileges 'reference' which has a central part in understanding the world around us. Indeed, reference gains a critical conceptual importance in his internalist phase. And his later works subscribe to the view that reference quite substantially determines meaning (intention), rather than the other way round. Putnam's understanding of reference, in particular, supplements the theory of meaning, thus helping us to locate the importance of the other factors that contribute to the meaning of objects, such as the 'environment'. By reiterating that meanings are not 'just' in the head, Putnam undertakes an important task at hand, namely the criticism of the traditionalist theory, that has not been adequately challenged prior to Putnam. He suggests a ingenious way to overcome narrow mentalism. I end with the philosophical insights that Putnam not only finds an alternative theory of Frege's semantics by bringing the contexts of the division of linguistic labour and the relevance of the 'social', he even injects or brings back, I do also reckon, the insights of later Wittgenstein's philosophical concepts of forms of life in some sense or other.

¹¹ Ibid., 36.