Is there a relationship between linguistic sounds and meaning?

Abstract

What connection is there between linguistic sounds and meaning? The present study claims that there is no such connection, and that linguistic sounds are the same as meaning. It is traditionally accepted that there is an arbitrary association between linguistic sounds and meaning. In the present paper, drawing from the concept of language authority for mind, I will talk about a distinction between live time of understanding - in which linguistic sounds are produced and understood - and non-live or historical time of understanding. Through making this distinction, I will show that in live time of understanding, assuming any relationship between the mental state of linguistic sounds and that of meaning is inadequate, and that the best way to explain why linguistic sounds are understood instantly and effortlessly as soon as they are heard is to imagine that linguistic sounds are the same as meaning or that at least we are only faced with a single sound-meaning mental state. In addition, making a comparison between hearing linguistic sounds and seeing objects helps us consider linguistic sounds the same as meaning in the context of live time of understanding.

Keywords: Linguistic sounds; Meaning; Arbitrary relationship; Live time of understanding; Language authority.

1. Introduction

Linguistic symbols can refer to meanings, and this way, a symbol that is usually considered neutral becomes alive. But, this referral power of language symbols creates a relationship between them and the meaning they refer to. It is clear that a linguistic symbol, such as a linguistic sound has some kind of relationship with the meaning it represents. In the modern literature of linguistics, an arbitrary association is considered between language sounds (or symbol) and their meaning. Here, arbitrary means that there is no essential relationship between linguistic sounds and their meaning or the semantic structure of language.

In the present paper, I challenge the argument that there is an arbitrary relationship between linguistic sounds and meaning, and maintain that linguistic sounds and meaning are the same phenomena. This claim and the arguments presented in its support are inspired by the works of Behin Arbabi (2007; 2010). In the first step, I will clarify the idea that there is an arbitrary association between linguistic sounds and meaning, and will argue in support of this idea. The arbitrary association between linguistic sounds and meaning seems obvious based on common sense. However, in the literature, this idea has been challenged by other arguments in favor of a non-arbitrary relationship between the two constructs. From a historical aspect, Cratylus argued in favor of a non-arbitrary association between linguistic sounds and meaning by formulating the naturalism theory. Naturalism in its excessive form is based on the idea that every name completely describes its object, so that a group of sounds that are less accurate in describing an object cannot be also its name (Sedley, 2018: 4$).

But, the most important challenge in considering an arbitrary association between linguistic sounds and meaning comes from the recent studies that increasingly show that in some cases, participants recognize a non-arbitrary association between linguistic sounds and their meaning. In the second part of the present paper, I will examine the findings of these studies, and will show that further evidence is needed to prove a non-arbitrary association between linguistic sounds and meaning.

Then, I will begin the main discussion. The present paper claims that there is no association between linguistic sounds and meaning; therefore, the main argument of the present paper is in contrast to arguments in favor of an arbitrary or a non-arbitrary association between linguistic sounds and meaning. In order to prove this point, first of all, I will argue in favor if the concept of language authority for mind; and in the third part of the paper, I will show the authority of meaning over mind. In discussion of authority of meaning, I will both talk about the inability of an individual or the society to change the meaning of a specific sound that has been described by Saussure (1916/1959), and discuss another kind of authority that includes the imposition of meaning when understanding a linguistic sound from a language we are familiar with. Authority of meaning alone cannot tell us anything about an arbitrary or non-arbitrary association between linguistic sounds and meaning; however, drawing from this discussion and using a mental experiment called "Takhi", I will make a distinction between live time of understanding - in which a linguistic sound is produced or understood and non-live time of understanding. In fact, the goal of this section is to draw the reader's attention to a historical aspect where a meaning is assigned to a linguistic sound, and how it differs from using linguistic sounds in the present moment.

With the help of this distinction and also through a comparison with visual perception (I maintain that there is no arbitrary or non-arbitrary association between seeing an object and understanding it), I will argue in favor of no association between linguistic sounds and meaning. Here, I will ask the following question: "What do we mean by a relationship between linguistic sounds and meaning?" Assuming an arbitrary or a non-arbitrary association necessarily means that linguistic sounds and meaning exist as two separate phenomena with a special connection. Sound is physical, while meaning is not; therefore, the question arises as to how there can be a connection between a physical and a non-physical construct. Even if we somehow consider a relationship between linguistic sounds and meaning, another question arises as to how an association between linguistic sounds and meaning can be formed in our mind. Therefore, I will show that we should either consider linguistic sounds and meaning a single mental state, or explain this issue differently.

In parts 1-4, I will examine the ideas provided by Wittgenstein (1953) and McDowell (1998) who do not consider meaning as mental state, and I will show that these kind of theories that usually emphasis the concept of "capacity or ability" cannot answer the questions as to why meaning has a subjective aspect or why we have a subjective experience when hearing linguistic sounds. Therefore, I will argue that meaning should be considered a mental state. But, as will be shown in the final section of the paper, if we suppose that meaning is a mental state, and linguistic sounds are also mental states, then any kind of association between two mental states would not be consistent with the concept of language authority over mind. Therefore, as claimed in the present paper, the best way to explain understating a phrase through a linguistic sound is to imagine that linguistic sounds and meaning are the same, just as we believe that perception of an

object is the same as the object itself, and to suppose that there is no association here, whether arbitrary or non-arbitrary.

2. Non-live symbols

Linguistic symbols of a language are meaningful for a person who knows the language. Meaning is something that makes a linguistic symbol alive. In an acceptable picture, symbols are non-live phenomena, and meaning is their soul. Wittgenstein (1953: 432$) writes: Every symbol alone is dead. Where does it get its soul from? A symbol becomes alive in application[1]. The relationship between a linguistic symbol (sound) and meaning is believed to be arbitrary. For example, there is no necessary association between "cheetah" and the four-legged animal that is represented by it. This principle has been formulated by Saussure (1916/ 1959: 67) who calls it the first principle of semiotics. The arbitrary association between linguistic sounds and meaning seems to be obvious, and conventional intuition also supports the idea that there is no necessary relationship between linguistic sounds and meaning.

Several arguments can be provided in support of the idea that language symbols are non-live. One argument is based on polysemy words. For example, "prune" has different meanings in different contexts. In one context, it refers to a kind of plum, while it means "to trim" in another. This shows that a symbol in itself is not important, but what makes it important is meaning, according to which the symbol is used to convey something.

Another argument is based on different linguistic sounds in different languages to express a single meaning. This shows that there is no particular reason to use a linguistic sound for a special meaning. A certain animal is called "horse" in English, "asb" in Persian, "pferd" in German, "cheval" in French, and "misatim" in Hindi. If there was a necessary relationship between linguistic sounds and meaning, it would be clear beyond language differences.

Common sense also supports the lack of a necessary association between linguistic sounds and meaning. For example, it can be imagined that instead of "chair", another symbol like "cheir" represent the actual object that is used for sitting on; therefore, there is no necessary association between "chair" as a symbol and its meaning. But, it is not possible to see something else and perceive it as a chair. For example, we cannot see a refrigerator, but perceive it as a chair.

Therefore, although a linguistic symbol is a physical object like other physical objects, it has an arbitrary relationship with meaning; therefore, it is in itself a non-live symbol that becomes alive through its meaning. However, some empirical studies have challenged the idea that linguistic symbols are neutral or non-live in relation to meaning.

3. A non-arbitrary relationship between linguistic sounds and meaning

[1] However, in contrast to the idea that a symbol becomes alive in application, it can be argued that linguistic symbols become alive not in application but in something subjective, objective, or abstract (ideas). What is clear is that a symbol is a non-living thing.

Today, a growing body of literature suggests that a non-arbitrary association between sounds structure and semantic aspects of language also exit. This literature suggests that those who hear a non-familiar language are sensitive to correspondence between linguistic sounds and linguistic category, and that we can talk about a relationship between sounds and semantic properties of what we hear (Köhler, 1929/1947; D'Anselmo, et. al., 2019; Tzeng et. al., 2017).

For example, D'Anselmo, e. al. (2019) asked their 215 Polish and Italian participants to listen to words from four non-Indo-European languages (Finnish, Japanese, Swahili, and Tamil), and try to guess the best meaning for each word by choosing from three alternatives shown on the computer screen. The alternative words were defined for the participants in their native language, and the three words were in the form of verbs, nouns, and adjectives. According to the results, the participants performed well in guessing the meaning of words based on auditory symbols for Finnish and Japanese words and also for nouns and verbs; the results were statistically significant. Because there was no significant difference between the performance of Polish and Italian participants, the authors concluded that auditory symbols act independent of one's native language.

Dingemanse, et al. (2015) talk about two types of non-arbitrary relationship between sounds and meaning: iconic and systematic. In the iconic relationship, there is an association between the form of a word and its meaning. Onomatopoeic words are the most famous examples of this type of non-arbitrary relationship between sounds and meaning. These words directly imitate the sounds they describe, such as meows describing a cat's sound in English etc. In these words, sounds imitate the actual meaning, and here, there is maximum perceptual similarity between sounds and meaning.

Ramachandran and Hubbard (2001) reported that participants who were not familiar with picture-sound simulation, matched words like "maluma" and "bouba" with curved shapes, and matched words like "takete" and "kiki" with shapes with acute angels. According to these studies, there is some sort of correspondence between the auditory structure of a word and the perceptual properties of what is described by it. In a study among English-speaking adults, Thompson and Estes (2011) found that a word like "wodolo" was more likely to be matched with bigger objects and a word like "kiete" was more likely to be matched with smaller objects.

Another type of non-arbitrary relationship between sounds and meaning is systematic. It refers to a meaningful association between patterns of sound for a group of words and their meaning. For example, vowel quality, syllable duration, and stress those help to distinguish between nouns and verbs in the English language (Dingemanse, et al. 2015). Another type of such relationship is statistical similarity between sounds and meaning, such as "sl" that usually referring to negative or repellent properties, like slum, slur, slow, or slime (Monaghan, et. al, 2014), or "gl" that often refers to bright things, such as glisten, gleam, glitter, or glow (Bergen 2004; Hutchins, 1999).

Results of the aforementioned studies refer to a non-arbitrary association between sounds and meaning, or at least indicate that in a group of words, this association is less arbitrary and sounds are not just a neutral symbol, but having a semantic quality.

The non-arbitrary association between linguistic sounds and meaning can have different explanations; for example, due to a common mental/brain structure, speakers of a particular

language may consider a group of linguistic sounds related to a group of meanings, while this relationship may not be observed in another language. In other words, the association between linguistic sounds and meaning in a particular language may be due to the common mental structure of speakers of that language. It can be argued that this association is not related to the mental structure of language speakers, but the phonological structure of a particular language has created a specific semantic structure or vice versa. The aforementioned studies seem to be more based on this type of association; however, more research is needed on this subject. It must be noted that the results of these studies about the relationship between linguistic sounds and meaning apply to a limited number of sound groups, and do not indicate a non-arbitrary relationship between most words. In fact, we are still in early stages of research on the relationship between linguistic sounds and meaning, and showing that a few words have a non-arbitrary relationship with meaning does not necessarily indicate that there is a general non-arbitrary relationship between linguistic sounds and meaning.

4. Authority of meaning

According to authority of meaning, when we see a linguistic symbol or hear a linguistic sound, it seems that the meaning is attached to it and the symbol cannot be perceived independent of its meaning. Here, two different types of authority of meaning should be distinguished from each other. The first type is when a person or the society as a whole is not able to attach a special meaning to a sound. It is similar to a point made by Humpty Dumpty, a character in a novel by Lewis Carroll (1917), tilted “Through the Looking-Glass”:

“When I use a word,” Humpty Dumpty says scornfully, “it means just what I choose it to mean—neither more nor less.” Alice responds, “The question is whether you can make words mean so many different things.” Humpty Dumpty answers, “The question is which is to be master—that's all.”

Here, authority of meaning indicates that we cannot be master of words. Saussure who has formulated the principle of arbitrary relationship between sounds and meaning also pays attention to this point, and maintains that the principle of arbitrary relationship does not mean that an individual or even the society as a whole can arbitrarily attach a different symbol to a particular meaning. We know that neither individuals nor societies can change linguistic symbols freely. For example, we cannot use “tree” instead of “sky” in the following sentence, and perceive it the same as before: “Sky is blue”. Saussure (1916/ 1959: 71) writes: Although a symbol (signifier) is considered a free choice in relation to the concept it reveals, it is not freely chosen in the language community that uses it, but it is imposed. The public is not involved in choosing linguistic symbols at all, and cannot replace a symbol with the one that language has chosen. This seems to include a paradox that can be called colloquially "the stacked deck." “We say to language: "Choose!" but we add: "It must be this sign and no other."… Neither an individual nor the society can change the existing symbols and have total authority over them”.

Therefore, the idea that there is an arbitrary relationship between linguistic sounds and meaning does not mean that an individual or a society can freely change the meaning of linguistic symbols. The fact that the relationship between linguistic sounds and meaning cannot be changed does not necessarily mean that there is a non-arbitrary association, but authority of

meaning in this sense indicates that when a word finds its application, the application cannot be easily changed by the user. However, this does not show a necessary association leading to assignment of a certain meaning to a linguistic sound.

Another type of authority of meaning can be call "authority of words". Smith (2012) maintains that when we talk rapidly and effortlessly, we understand the meaning attached to our words, and we have no authority over the meaning of what we hear. We discover the meaning of what we hear through what has been said, and only understand what has been said. Elsewhere, I (2013) defended the idea that the meaning of words is imposed on the mind. The power of words is beyond imposing meaning, and hearing of a word or phrase can lead to different emotions, such as shame, excitement, happiness, anger etc. Everyone can be excited by words, and the listener has no control over this. In other words, it appears that words and phrases are imposed on the listener, and people have no authority over the meaning of what they hear. For example, the sentence "Pay more attention" implies blame or criticism in some contexts, and upon hearing this sentence, the listener may feel ashamed. This indicates that the meaning of the sentence has been imposed on the person. All words and phrases have such a quality.

Therefore, a language user has no control over the meaning of what they hear: for example, one cannot understand "apple" while hearing the word "refrigerator". In "Modularity of Mind" and drawing from Marslen-Wilson and Tyler (1981), Fodor (1983) tries to explain such phenomenon. In a discussion on word recognition, Marslen-Wilson and Tyler (1981) state: Even when participants are asked to pay attention to phonological properties, they seem not to be able to avoid recognizing words… this indicates that some sort of processing is involved in word recognition that is done through automatic processes that function in an involuntary manner (Fodor, 1983: 53).

However, authority of language over mind is not in contrast with the idea that language is conventional. Because it can be argued that words are conventionally attached to meanings, so that when we hear a world or a linguistic symbol, its meaning comes to our mind. Therefore, authority of words is not related to conventionality or non-conventionality of linguistic symbols, but it is related to the performance of mind when facing linguistic symbols. For example, when we hear a word like "chair", its meaning is automatically represented in our mind. Therefore, under certain conditions, linguistic symbols activate meaning in our mind. However, authority of meaning can be shown that there is no arbitrary association between linguistic sounds and meaning, at least *when* we hear or see a word, and that linguistic sounds have meaning that has been attached to them conventionally.

4-1. Authority of words, live time of understanding, and arbitrary association as a historical association

Distinguishing between live and non-live time of understanding can help in understanding authority of language and association between linguistic sounds and meaning. Read the following fiction story:

"Once upon a time, there was a city surrounded by the enemy's army that wanted to capture it. The city was protected by long walls; but, a small group of people in the city conspired with

the enemy with the hope of ruling the city. This small group that made up only 5% of the city's population, betrayed their own people and let the enemy in, but the residents of the city protected it effectively, and finally defeated the enemy. After defeating the enemy, the residents decided to separate the traitors from other residents. They agreed on attaching a symbol, like an orange cotton, to traitors' clothes. From then on, the traitors wore that sign on their clothes. At first, the sign was just artificial, i.e. residents of the city and people from other cities knew the story, considered every person with an orange sign attached to their clothes a traitor. Over time, the traitors had children, and their children also wore the orange sign. After some time, this became a tradition, and people perceived treason as soon as they saw the orange sign. In other words, the orange sign no longer reminded people of the actual story of treason, but it was treason itself. It can be imagined that residents of city even forget where the orange sign has come from and the story behind it, but the orange sign still brings treason to their mind. In other words, they may wonder, "There is an orange sign, so he/she is a traitor" becomes "orange sign is equal to treason". In fact, treason becomes part of the identity of the orange sign. In other words, "{being a traitor}; …; and/or {having the orange sign}; become more or less equivalents (Arbabi, 2007: 69-73).

It made no difference if another thing like a necklace or a completely orange suit was used instead of the orange cotton. Traitors could have been distinguished by a sign on their foreheads, or they and all their children could have been distinguished by an orange skin made by genetic modification.

All these signs are like the original orange cotton sign, i.e. at first, the orange color is meant to show treason, but after some time, even when the story behind the treason is forgotten, it brings treason to mind; in other words, treason has become part of the identity of orange skin.

Instead of these signs, traitors can be called by a specific name. For example, we can call them "Takhi". In other words, there could be no external sign to indicate treason, and traitors could be known as "Takhi". In that case, every time someone hears the word "Takhi", they will think about treason, and after a while, treason becomes part of the identity of the word "Takhi".

Therefore, at first, the word "Takhi" or an orange sign is selected to refer to traitors; but, after a while, when the sign has been heard or seen many times, it automatically brings treason to mind. When the sound "Takhi" finds its application, neither an individual nor the society can change the relationship between it and its meaning. In addition, when this sound finds its application, we understand its meaning instantly and effortlessly, even if we are unaware of why it had been selected in the first place.

Here, when we say or hear the word "Takhi" and understand it, that is when we understand or produce this sound we are in live time of understanding, and when it is assigned to a specific meaning or when we discuss it, for example talking about its history, why it has been named that way etc. we are in non-live time of understanding. It is worthwhile to note that this distinction is only used to show our point, and un-live time of understanding is not found in the real word. When we use words, whether understand them or produce them, we are in live time of understanding; in other words, un-live time of understanding is only a matter of discussion.

In the example of "Takhi", it can be observed that the arbitrary association between a sign and its meaning is not limited to language, and can be used for anything else. Orange colored

cotton, a necklace, or even color of skin all can be a sign referring to a specific meaning. For example, if orange colored skin was assigned to mean treason, residents of the city would instantly consider every person with an orange colored skin a traitor. It can be even imagined that next generations of orange skin people are marginalized due to being rejected by the society and lack of access to education and money; therefore, poverty and crime rates will be higher in people with an orange skin. This leads to some sort of discrimination against orange skin people, while this discrimination or bias is not clearly related to treason anymore. The word "Takhi" can undergo the same process. As soon as one realizes that someone is from the "Takhi" tribe, they form a negative attitude towards them in the live time of understanding. Here, it is not important where the word "Takhi" has come from, and it acts like an orange skin. In other words, the word "Takhi" gains authority over people's minds.

Therefore, although live time understanding and authority of meaning do not provide any evidence of a necessary relationship between linguistic sounds and meaning, it should be noted the idea that there is an arbitrary association between linguistic sounds and meaning is based on the fact that at a certain point in history, a specific meaning has been assigned to a specific word. In other words, one reason why a non-arbitrary association between linguistic sounds and meaning cannot be understood from live time of understanding and authority of meaning is that we intuitively know that a different world could have been assigned to a specific meaning. Because of the historical aspect of this relationship, when we are in the live time of understanding and when words have authority over mind, we still talk about an arbitrary relationship between linguistic sounds and meaning.

To put it more clearly, when we see an object like a chair, we see and perceive it as a chair. Here, there is no reasonable reason to suppose that our visual perception of chair has an arbitrary relationship with the external object. In fact, such an assumption is in contrast to our conventional understanding of visual perception. The performance of our auditory perception in live time of understanding is similar to that of our visual perception. That is when we hear a linguistic sound, we understand it the same way we see and perceive a visual object. We consider an arbitrary association between a word and its meaning because of the historical aspect of this relationship, but due to lack of such a historical aspect, we do not consider an arbitrary association between visual objects and their meaning.

However, a powerful intuition supports the idea that even if we accept a distinction between live time of understanding and arbitrary association as a historical association, we should still suppose that there is no necessary association between linguistic sounds and meaning. The fact that we can talk about an arbitrary association between linguistic sounds and meaning in the non-live time of understanding shows that a relationship could be imagined between two different phenomena, i.e. meaning and linguistic sounds, and because such a relationship is not necessary, it should be arbitrary. In the following, I will try to challenge the idea that there is a relationship between linguistic sounds and meaning in order to show that even selecting a meaning for a sound does not indicate an arbitrary association between them.

5. Sound, meaning, and mental state

When we talk about a relationship between linguistic sounds and meaning, we suppose that we are faced with two different things. Supposing an arbitrary association between linguistic sounds and meaning is based on the same logic; in other words, it is supposed that a sound is not meaningful in itself, and because no aspect of a sound represents a specific meaning, it must have an arbitrary association with meaning. When we hear a sound, our sense of hearing is activated, and the sound represents a specific meaning. Such a process is not found in visual or tactile perception. In other words, when we see an object, the related region in our brain is activated, and we understand the object; but, here, there is no association similar to what is seen between linguistic sounds and meaning.

In other words, when seeing, touching, smelling, or tasting things, or even when hear a sound in the nature, we can talk about an association between our perception and what is perceived; but, not a relationship like what is found between linguistic sounds and meaning that can be arbitrary or non-arbitrary. A linguistic symbol is a sign with a relationship with its meaning that is based on referring, but when we see a tree, we do not talk about a symbol referring to something else. In all types of perception, there is a relationship between what occurring in the brain and what has caused it, and such a relationship is also present when hearing a linguistic sound. However, seeing, tasting etc. are occur in the brain; therefore, here we cannot talk about a relationship with an external object, or at least we should imagine that the association between an external object and our perception is different from that between linguistic sounds and their meaning. Something independent from perception (that occurs in the brain) is found in the association between linguistic sounds and meaning that is in an arbitrary or even non-arbitrary association with linguistic sounds.

Therefore, On the one hand, there is a linguistic symbol that is perceived by our auditory perception, and on the other hand, there is something called "meaning". Now, if there is an association between these two, they must be of a material that allows this relationship. For example, in substance dualism, the question is asked as to how a physical thing like brain can have a relationship with mind as a non-physical thing. In other words, if we talk about an association between two things, we should be able to explain how such an association (supposing that the two things are of different types) occurs. Therefore, today, the mind-body relationship is called "the hard problem of consciousness". This problem asks "How can a physical phenomenon like a neurological process have a conscious experience?" Therefore, it can also be asked "How can a sound as a physical thing have a relationship with meaning that is supposedly a non-physical thing?"

An answer to this question is that the association between a linguistic sound and its meaning is not a relationship between a physical and a non-physical thing, but here, we talk about a relationship between a mental or brain state with meaning. In live time of understanding, i.e. when we hear some linguistic sounds, we have a mental experience of hearing the sound, and meaning, by any definition, is a mental state that forms a relationship with the mental state of linguistic sounds. In other words, because sound and meaning should be of the same material in order to have a relationship with each other, and also because everyone can experience such a relationship, when a linguistic sound is heard, both the sound and its meaning should be of the same material as the mind or the brain.

For example, when we see the symbol "  " in a restaurant that means not smoking, this does not mean that this symbol is of the same material as understanding the concept of not smoking,

but when we see this symbol, we experience a mental state that is related to "not smoking". The relationship between linguistic sounds and meaning also refers to a relationship between the mental state of hearing a sound and the mental state of meaning. But the problem is that when we hear a linguistic sound in live time of understanding, there is nothing in our mind (at least consciously) as mental state of meaning. That is it is not the case that we hear a sound, and then relate to a meaning that is been assigned to it. Even if there is an un-arbitrary relationship between linguistic sounds and meaning, there is still no mental state of "meaning" that can be regarded as having a non-arbitrary association with a sound. When we are faced with linguistic sounds in the language we are familiar with, we understand them instantly, effortlessly, and without the mediation of words and phrases (Wright, 2001; 177), and hearing a sound can be regarded some sort of auditory experience (Smith, 2009; Pettit, 2002; O'Callaghan, 2010) that is a mental state[2]. Therefore, we should either suppose that there is no such a thing as mental state of meaning and there are only linguistic sounds in which case we must explain what we mean by the relationship between sounds and meaning, or that we are faced with two different mental states, and mental state of meaning as an unconscious state is automatically attached to linguistic sounds.

Therefore, we are faced with two different explanations. One indicates that there is no such a thing as mental state of meaning; if we accept this idea, then we must show how a neutral symbol can be assigned to a specific meaning in the first place. The other explanation argues in favor of a mental state for meaning; if we accept this idea, then we must explain the role of this mental state in the mind and its relationship with linguistic sounds, in a way that is compatible with our description of hearing linguistic sounds and instantly understanding their meaning. In the following parts, I will argue in favor of the first explanation, i.e. lack of a mental state of "meaning". In the existing literature, at least two views can be identified in support of the idea that there is no mental state of meaning. In the next section, I will review the two views, and then examine what relationships a mental state of meaning could have with linguistics sounds, if such a mental state existed. Finally, as the main claim of the present paper, I will explain the view that there is no mental state of meaning.

5-1. Meaning as a mental state

[2] In order to show that a linguistic sound is some sort of experience, Smith (2009) asks us to intuitively consider the difference between hearing a sound from a familiar language compared to hearing a sound from an unfamiliar language. Hearing words and phrases from a familiar language is totally different from hearing those from an unfamiliar language. He also maintains that the experience of hearing a sound from an unfamiliar language is different from hearing a non-linguistic sound. For example, we can intuitively guess that when we hear a linguistic sound (such as a sound from the Chinese language that we are not familiar with), we know that the sound we hear is linguistic, especially if we consider this experience compared to when we only hear sounds from the environment that are not experienced as linguistic sounds. O'Callaghan (2010: 4) is also among the researchers who consider hearing linguistic sounds as a kind of auditory perception. He maintains that the difference between hearing a linguistic sound from a familiar language compared to hearing a sound form a non-familiar language is related to the type of experience. According to him, experience refers to any specific mental phenomenon, including emotions, bodily sensations, or imaginations. Prinz (2006: 452) also maintains that when a monolingual English-speaking individual hears "Hund" that is a German word meaning dog, they have a totally different experience compared to a German-speaking person who hears "Hund" and understands its meaning.

In "Philosophical Investigations" at § 138, Wittgenstein explains a paradox: "…We understand the meaning of a word when we hear or say it: we grasp it in a flash and what we understand this way is surely different from its "use" that is continued over time!" From § 143 to § 197, he explores what understanding is and what it is not. In these paragraphs, he tries to explain that "use" as the main aspect of word meaningfulness, is not a mental experience, nor a mental process, nor a mental state, nor a dispositional state of brain or mind. The point of his argument is that if there is a mental state or process involved in hearing and understanding linguistic sounds, then we should suppose that there is a mental state behind all our correct uses of words and phrases that is considered their unifying aspect (§ 146). Therefore, if we consider meaning a mental state involved in word understanding, then this understanding that occurs instantly seems to have all the correct uses of the word that is understood, and as pointed out by McDowell (2009: 85), understanding is believed to have a quasi-magical effect. According to Wittgenstein, understanding does not have such a characteristic; that is, it is not a mental state, and it must be understood in relation to the concept of ability (Baker & Hacker, 1983/ 2005, part I: 380-385).

Specifically, Wittgenstein maintains that meaning cannot be a mental state, and that we cannot even have a mental experience of it. In *Philosophical Grammar* (1974: 49-50), he talks about different experiences of two people who are watching a chess game. They have different experiences because one of them knows the rules, while the other one does not. But this does not mean that cognition is some sort of experience. Therefore, it can be argued that if language understanding is considered equal to knowing the meaning of what is said, we cannot still consider language understanding some sort of mental experience, even if it brings to mind a specific experience.

Wittgenstein's view on this subject is in contrast with conventional intuition according to which when we hear a word or phrase and understand its meaning, we are in specific mental state. As pointed out in the previous paragraphs, the experience of hearing a word or phrase from a familiar language is completely different from that of hearing a word or phrase from an unfamiliar language; this shows that understanding words and phrases is a mental experience, therefore a mental state. Rejecting Wittgenstein's view on this matter, Goldfarb (1992) also writes: "The argument that there is no specific mental state or process constitutive of understanding, remembering etc. is something that needs more clarification, because surely when we understand a word, phrase, sentence, or a series of algebraic formula, we are in a specific mental state, i.e. the state of understanding.

In addition, it was previously stated that it is generally believed that linguistic sounds and meaning are two different things, and that there is an arbitrary or non-arbitrary association between them. Now, if meaning is considered the same as usage or even some sort of ability that is not a mental state, then it cannot be of the same material as linguistic sounds that are considered either a physical or a mental state (when a linguistic sounds are heard and transformed into a mental state); therefore, Wittgenstein's view on this subject cannot explain the relationship between linguistic sounds and meaning. I will further explain this issue at the end of this section.

The second view that belongs to McDowell maintains that meaning is not a mental state. According to him (1998b: 315), others' statements are nothing but accessible facts that we can know about others' linguistic behavior. He (1998b: 99) also argues that when we understand a statement, it is not like that we hear some linguistic sounds and then infer a meaning from what

we have heard, but meaning is something present in words themselves, something in words that can be heard or seen by the person who perceive them. According to McDowell, in order to explain why we understand words and phrases as soon as we encounter linguistic sounds, we must accept that at the language level, meanings are present in our language behavior, not that they are hidden behind our linguistic sounds. He argues that our language behavior is meaningful only when we are part of a language community. In other words, our language behavior is a report of what our language community knows. He writes (1998a: 253) being part of a language community is not important because it explains the external dimensions of our language behavior or our observable behaviors, but because it enables us to make our mind accessible to others. Utilizing language and being part of a language community allow us to reveal our mind to others through what is found outside. The key point of McDowell's argument is that a language community is not just a community consisted of people who speak the same language, but it makes us ready for meeting of minds (McDowell, 1998a: 253), something that occurs by language behavior through linguistic sounds.

McDowell also maintains that meaning exists at the language level, but not as a physical entity like sounds. In other words, although it is present as the language level, it is not a mental entity; here, the question arises as to how the relationship between linguistic sounds and meanings can be explained. When we hear a linguistic sound and understand its meaning, we are in a mental state. According to McDowell, the language capacity that is acquired through being a member of a language community enables us to understand words and phrases we hear. Therefore, when a language user understands a word or phrase, they have only one mental state, i.e. the sound-meaning state. In other words, here, we are not faced with two different states occurring outside the mind; therefore, when we understand something, there are only meaningful sounds, not two different mental states as sounds and meaning.

Therefore, both Wittgenstein and McDowell relate language understanding through linguistic sounds to our understanding capacity. According to Wittgenstein, this capacity is created as a result of having a specific form of life, and according to McDowell, it is a result of living in a language community. By rejecting the idea that meaning is a mental state, both of these views can show that when we hear and understand a word, we only hear meaningful sounds; therefore, they both provide an explanation for the sound-meaning relationship in live time of understanding. Despite providing good explanations of the concept of capacity, how it works, and its relationship with the mind, these theories do not answer the question as to how a sound-meaning relationship is possible outside the mind, considering that sound is a physical entity, while meaning is not.

6- Sound-meaning relationship

If meaning is a mental state, then it should be supposed that the relationship between linguistic sounds and meaning is a relationship between two different mental states, and the type of relationship between them should be explained. Here, I only explore possible sound-meaning relationships and the question whether there is an arbitrary or a non-arbitrary relationship between them will be explored in the next section. In order to examine the sound-meaning relationship, it is first explored in relation to live time of understanding, i.e. when hearing

linguistic sounds and understanding their meaning. The present examination of different types of sound-meaning relationship is based on Arbabi's works (2007).

When we hear a sound, even if we do not understand its meaning, for example a word from a non-familiar language, we still have a mental experience of hearing it. As I previously stated, based on our experience of hearing linguistic sounds from a familiar language compared to that of hearing those from an unfamiliar language, some philosophers (Smith, 2009; O'Callaghan, 2010; Prinz: 2006; Siegel, 2006; Strawson, 1994; Block, 1995; & Tye, 2002) conclude that understanding a word or phrase is a mental experience or a mental state. Therefore, sounds from an unfamiliar language and even meaningless sounds constitute a mental state, because we can compare them to mental states of familiar words. Therefore, when hearing a sound like "Takhi" that is meaningless to us, we still have a mental state.

A possible explanation of sound-meaning relationship is that a mental state like "Takhi" is synonym of another mental state that is familiar to us like "treason", where the former mental state is a sound and the latter is its meaning. Therefore, here we are faced with two mental states that we connect to each other consciously. This is a synonym relationship. Therefore, the sound-meaning relationship can be like the relationship between two synonyms. This synonym relationship can also be between sounds and any other mental state. For example, the sound of "chair" is a synonym for the mental state of chair that is based on imagining its picture. However, this cannot explain the sound-meaning relationship in live time of understanding. The main reason for this is that when we hear linguistic sounds, we understand them instantly and without any conscious effort. While, if there is a synonym relationship between sounds and meaning, linguistic sounds must be consciously connected to another mental state in the process of hearing a linguistic sound and understanding its meaning, but we know that such a relationship is not found.

The relationship between the mental state of linguistic sounds and that of meaning may also be unconscious. In other words, the two mental states are associated with each other automatically. By association, we mean a relationship between two mental states that are automatically connected to each other according to one's personal experience. In other words, being in a mental state consistent with one's personal experience and environment automatically evokes another mental state. In the episode of the madeleine in the first section of the last volume of his novel "In Search of Lost Time", Marcel Proust has provided one of the most brilliant descriptions of association, where the narrator is suddenly and involuntarily thrown into past memories after tasting madeleine's biscuits[3]. In this type of sound-meaning relationship, one involuntarily goes from one mental state to another consistent with their personal experience and by being in a specific situation. Because the sound-meaning relationship is not consistent with

[3] No sooner had the warm liquid mixed with the crumbs touched my palate than a shudder ran through me and I stopped, intent upon the extraordinary thing that was happening to me. An exquisite pleasure had invaded my senses, something isolated, detached, with no suggestion of its origin. And at once the vicissitudes of life had become indifferent to me, its disasters innocuous, its brevity illusory—this new sensation having had on me the effect which love has of filling me with a precious essence; or rather this essence was not in me it was me. ... Whence did it come? What did it mean? How could I seize and apprehend it? ... And suddenly the memory revealed itself. The taste was that of the little piece of madeleine which on Sunday mornings at Combray (because on those mornings I did not go out before mass), when I went to say good morning to her in her bedroom, my aunt Léonie used to give me, dipping it first in her own cup of tea or tisane. The sight of the little madeleine had recalled nothing to my mind before I tasted it. And all from my cup of tea.

personal experiences or environments, this relationship must be a general one that is the same for every person.

A possible explanation for such a relationship is that every time we hear a sound like "chair", the picture of a chair automatically comes to our mind. This relationship must be fast and automatic. However, we intuitively know that we instantly understand words and phrases without necessarily imagining their picture. In contrast to the synonym relationship that is voluntary, such a mental state that is based on imagination can be involuntary. In addition, it does not apply to many words and phrases; for example, there is no commonly-accepted picture for the verb "to be".

In order to explain the sound-meaning relationship based on association, it should be supposed that there is a mental state of meaning that is unconscious, because when we hear a linguistic sound, we understand it instantly while experiencing no mental state other than that of understanding. In addition, this unconscious mental state, i.e. meaning must have an automatic and necessary relationship with the mental state of linguistic sounds.

The concept of synaesthesia can help us imagine such a relationship. In synaesthesia, experiencing a sensation automatically leads to another sensation. For example, when a specific sound is heard, a sense of color is experienced, or a certain color, like green is experienced as result of seeing a particular number, like 5 or 6 (Ramachandran & Hubbard, 2001). Although in synaesthesia we talk about a relationship between two different sensations, this relationship can be seen in a wider context. For example, Aryani et al. (2020) speak about relationships between some phonemes and emotions. Motoki et al. (2020) also referred to associations between some words and tastes. We can clearly see the relationship between linguistic sounds and the written system in our native language. When we see a text, at the same time, we experience the related sounds in our mind, and it can be argued that there is a non-voluntary or even unconscious relationship between our visual perception of written symbols and our auditory perception of linguistic sounds[4].

Now, it can be argued that the sound-meaning relationship is similar to those described above. In other words, we experience the mental state of meaning as a result of experiencing the mental state of linguistic sounds. In synaesthesia, there is an association between two sensations, but based on this relationship, it can be argued that we have a mental state of linguistic sounds and another mental state of meaning that are connected to each other in live time of understanding in an involuntary, automatic, or unconscious manner.

In showing a relationship between linguistic sounds and meanings, whether voluntary or non-voluntary, this explanation is faced with some objections. The most important objection is that in both association and synaesthesia, we are faced with two mental states that are automatically and non-voluntarily related to each other, but every mental state can be sensed or come to awareness in any other situation. For example, when one hears the number 5 and at the same time feels the color green, the feeling of color green is also experienced in other situations. However, this does not apply to meaning. In other words, we have no understanding of the pure form of meaning, i.e. without an accompanying sound, image etc. In addition, if there is a mental state of

[4] Whether synaesthesia or the relationship between linguistic sounds and sensations is an association-like function or another brain function is still a matter of debate. To get more information, see Arbabi (2007, 2010).

“meaning”, the question arises as to how meaning can be automatically attached to linguistic sounds in our mind, while we do not even recognize that we have achieved the “meaning” in the first place.

In addition, if we suppose that there is a mental state of “meaning” that has been attached to a sound, and is un-voluntarily related to some linguistic sounds in its current use, we should suppose that we consciously have the mental state of “meaning”, or that we have something as “meaning” at the start of learning. For example, when the sound “Takhi” was attached to treason, the meaning of “Takhi” must have been a mental state. It is clear that “treason” cannot be considered a synonym of “Takhi”, and “treason” can only act as something that defines or gives meaning to the sound “Takhi”. If “Treason” has the same meaning as “Takhi”, we are faced with two different linguistic sounds that exactly mean the same, while when “Takhi” is used as a linguistic word, it is nothing more than a synonym for “treason”, like other synonyms that have different mental states. If synonyms had exactly the same meaning, it would be meaningless to assign new synonyms. Regarding synonyms, it can only be argued that they have similar meanings.

Therefore, if meaning is a different mental state than linguistic sounds, the question arises as to how the two constructs can be connected. In fact, if we suppose any type of association other than those described above, we need to believe in a mental state of meaning that we do not even know how it has been acquired and that we can never access it independent of the linguistic sounds we hear. Even if we try to become aware of the mental state of meaning independent of linguistic sounds, we will be still unable to do that.

7. Sound is the same as meaning

As shown earlier, the sound-meaning association cannot be explained based on different types of relationship, and even we cannot imagine “meaning” a mental state. However, we can suppose that linguistic sounds and meaning are the same as each other, or that we are faced with a single phenomenon, i.e. sound-meaning. In addition, the ideas of Wittgenstein and McDowell indicating no mental state of “meaning” finally lead to the same conclusion.

But the idea that linguistic sounds are the same as meaning seems unusual. Auditory symbols are inanimate because, as previously described, different symbols in different languages can have the same meaning, and new words can be assigned to a specific meaning, like “Takhi” that was assigned to mean “treason”; this shows that meaning is something different form linguistics sounds.

In addition to these, some neurological disorders can show a distinction between linguistic sounds and meaning. For example, a disorder called “word-meaning deafness” may show that linguistic sounds and meaning are different mental states. In this disorder, the patient is unable to understand a word when it is spoken, but they can repeat and understand it when reading it (Kohn & Friedman, 1986). In other words, the patient’s linguistic knowledge is not disturbed, because they can hear linguistic sounds and repeat them (Pettit, 2010), and are only unable to understand the meaning of the sounds they hear. This disorder can show a distinction between linguistic sounds and meaning.

Therefore, here, we are faced with two ideas that are in contrast to each other. On the one hand, meaning and linguistic sounds are clearly different phenomena. On the other hand, when using language or in live time of understanding, it cannot be shown that we are faced with two different mental states as meaning and linguistic sounds.

In the Takhi story that was described earlier, residents of the city assigned the word "Takhi" to a treacherous minority group, and from then on, they used this word to call them. Years later, even when the main reason for calling the minority group "Takhi" had been forgotten, people still used it to call them. We argued that when we talk about "Takhi" and why or when it has been adopted, we are in non-live time of understanding; and when we talk about the uses of Takhi, i.e. when we hear and understand it, or when we are producing it, we are in live time of understanding. There is a clear distinction between linguistic sounds and meaning in non-live time of understanding; therefore, when we talk about an arbitrary association between linguistic sounds and meaning, we are in fact in non-live time of understanding. But as stated earlier, when we hear the sound "Takhi" in live time of understanding, we cannot talk about a separate mental state of "meaning", because this word has authority over us. In other words, we are faced with a single understanding or mental state, i.e. sound-meaning. Therefore, in live time of understanding, we cannot talk about linguistic sounds and meaning as separate mental states.

In other words, when we talk about a relationship between linguistic sounds and meaning and consider it arbitrary, we are in non-live time of understanding. New research indicating a non-arbitrary association between linguistic sounds and meanings, speak about sound and meaning as two different phenomena connected by a non-arbitrary relationship. I also maintain that this association is non-arbitrary, but not because of a meaningful relationship between the symbolic system and the semantic system, but, as previously stated, because it is impossible to have two separate mental states in live time of understanding.

To put it more clearly, in non-live time of understanding, we are only faced with linguistic sounds that we hear and understand as meaningful sounds, not because a meaning has been attached to them or because there is an automatic sound-meaning relationship, but because in the live time of understanding, linguistics sounds are the same as meaning. Here, the question arises as to where the meaning is. As mentioned earlier, a meaning has been assigned to some linguistic sounds in non-live time of understanding; therefore, there must be a meaning. Now, if linguistic sounds are the same as meaning, the question is, where is the meaning?

All the reasons mentioned here for neutrality of linguistic sounds, such as the idea that a linguistic sound does not necessarily refer to a meaning are applicable to non-live time of understanding, and none of them is applicable to live time of understanding. In addition, we intuitively know that in live time of understanding, there is no meaning independent form linguistic sound. In fact, a meaning assigned to some linguistic sounds is in fact another sound or something else that gives meaning to the respective sounds, not a meaning independent form them. Everything that is initially assigned to some linguist sounds is in fact their synonym not their meaning.

Imagine a man form 1000 years ago comes to the present using a time machine, and sees a car. We give him some information about the car, describe its function and how it works, and even teach him how to drive it. After a while, every time he sees a car does not perceive it as a large piece of metal. As a result of our descriptions and also the functions of the car he has

personally experienced, car has become a meaningful thing for him. Therefore, when he sees a car, we do not say that he saw the car and then the meaning of what he saw was attached to the image of the car, or that another mental state is activated before he recognizes the car.

The same is true for linguistic sounds. It is of no use to say what meaning has been assigned to certain linguistic sounds, because it is not in fact their meaning but it is something that causes them to have meaning; and when we hear linguistic sounds, we hear the sounds themselves, like the example of a person from the past who sees a car not a large piece of metal. Now if we maintain that there is a distinction between seeing a car and meaning of the car, and that we are faced with two different mental states as car and its meaning, the same can be argued about linguistic sounds, but if we do not consider an association between seeing a car and meaning of the car, the same should be applied to linguistic sounds in live time of understanding; in other words, here, we only hear a sound that is in itself meaningful.

Such an explanation can show why words have authority over mind, because they are real like other things that we can see, and it is not the case that they become meaningful through their relationship with something else like meaning. In other words, they are not neutral symbols, but they are alive symbols in live time of understanding. In addition, we can explain why there is a non-arbitrary association between linguistic sounds and meaning: there is no such an association at all. In other words, linguistic sounds and meaning are the same as each other.

However, as stated earlier, word-meaning deafness can show the existence of meaning and linguistic sounds and a distinction between them. The fact that there is a semantic system on the one hand and a system for linguistic sounds on the other hand is not the only explanation for this disorder, and other explanations can be provided that do not require two separate mental states. Here, I cannot provide such an explanation, but I can introduce a similar disorder of visual perception.

One form of agnosia is associative agnosia in which the patient can perceive what they see, for example they can draw it, but they cannot recognize it (Kumar & Wroten, 2019). Now if we consider, based on this disorder, a duality between seeing things and perceiving their meaning, or a distinction between seeing something and understanding it, then we can apply the same argument to the relationship between linguistic sounds and meaning. But if we cannot conclude that there is a duality between seeing and understanding things, the same argument is applicable to linguistic sounds and meanings. In other words, we cannot conclude a duality between sounds and meanings based on the word-meaning deafness disorder.

8. Conclusion

I started the present paper by mentioning relatively obvious reasons for considering an arbitrary association between linguistic sounds and meaning, and finally, I tried to show that there is no relationship between linguistic sounds and meaning, at least in the mind of the person who hears some linguistic sounds. In fact, the main focus of the present paper in terms of the sound-meaning relationship was on the relationship between mental states of linguistic sounds and meaning. Therefore, I did not discuss the nature of meaning, and I finally concluded that if there is meaning, when grasping it we are in a mental state that meaning is its content.

In this paper, I examined possible associations between mental states of linguistic sounds and meaning, and I showed that any relationship between them is unable to explain either why we instantly and effortlessly recognize and understand linguistic sounds in the languages we know, or how the mental state of meaning, i.e. a pure mental state of meaning can exist independent of linguistic sounds.

One of the main focuses of the present paper was to show similarities between hearing a sound and seeing an object. Linguistic sounds are real things, but their relationship with meaning has caused us to have different views on auditory perception of linguistic sounds and visual perception of objects. In the present paper, I tried to talk about similarities between these two. If this claim is true, then we can have a different view on linguistic sounds and meanings, and instead of focusing on the nature of meaning, we can talk about loading of a sound when it is understood; this way, we can further our understanding of linguistic sounds and even language and meaning.

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