MIND-AS-BODY Metaphor in Igbo

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Abstract

Polysemy and metaphor have been discussed by many linguists. It is generally agreed that polysemy arises from a general cognitive ability humans possess. Metaphor is seen as general and basic to humans in both thought and language. Uwalaka (1988) mentions the verbs of perception in Igbo with a focus on the argument structure and semantic roles associated with this class of verbs. However, no mention is made about the polysemous nature of this special class of verbs, as well as the cognitive basis for this phenomenon. Following the ways of semantic extension in English perception verbs in Sweetser (1990) and Ibarretxe-Antuñano (1999, 2002, 2008), this paper treats perception verbs in Igbo with a focus on two things. First, to find out the range of metaphorical extensions associated with these verbs in Igbo, and to establish the extent to which the language data supports the claim that these metaphorical mappings are cross-linguistic. Finally, it is observed that the MIND-AS-BODY metaphor is not only productive in Igbo, it also follows the pattern attested in the literature.

Key words: Igbo; Polysemy; Metaphor; Perception; Cognitive

1. INTRODUCTION

Polysemy is defined by Evans and Green (2006, p.36) as "the phenomenon where a single linguistic unit exhibits multiple distinct yet related meanings". Polysemy may be contrasted with homonymy, "where two words are pronounced (*soul* and *sole*) and/or spelt the same way (*bank* of a river and *bank* 'a financial institution') but have distinct meanings" (Evans and Green, p.2006, p.36). In homonymy the distinct meanings are "synchronically unrelated (unrelated in current usage)" and/or "historically unrelated" (Evans and Green, 2006, p.329), thus they are not polysemous. Furthermore, Taylor (2002, p.98) observes that polysemy is a very common phenomenon, especially for the most frequent words, which exhibit a range of different meanings that can be viewed as related to one another, e.g. the preposition *over*, as in the following example (from Evans and Green, 2006, p.36):

1. a.The picture is over the sofa ABOVE
   b.The picture is over the hole COVERING
   c.The ball is over the wall ON-THE-OTHER-SIDE-OF
   d. She has a strange power over me CONTROL
   e.The helicopter flew over the city PATH (Taylor, 1989, p.127)

Cognitive linguists generally agree that metaphor often accounts for polysemy. Hence, metaphor is seen, not only as a characteristic of poetic language, but on the contrary, as being pervasive in everyday life, both in thought and language. Lakoff and Johnson's (1980) work on polysemy and metaphor was a great contribution in cognitive linguistics. Here, they define polysemy as a systematic relation of meanings whereby related meanings are organised into categories based on family resemblance.

Recent studies in the field of cognitive semantics have tried to put forward the argument that perception verbs have a polysemous structure, motivated by our experience and understanding of the world. Metaphor represents one of the cognitive instruments structuring the variety of meanings of lexical items and is a part of everyday language that affects the way in which we think, perceive and act. Following the number of articles by linguists (Sweetser 1990, Viberg 1984, Ibarretxe-Antuñano 1999, 2002) that have analysed the polysemous structure of

perception verbs, as well as their semantic extensions, this paper intends to examine the structure of Igbo perception verbs and their semantic extensions. The paper is developed as follows: section 2 discusses the Cognitive Linguistics account of linguistic meaning with a focus on the relationship between polysemy and metaphor, and a brief review of the Conceptual Metaphor theory; some studies on verbs of perception, their semantics and meaning extensions are highlighted in section 3; consequently, the discussion on Igbo verbs of perception appears in section 4, while section 5 summarises and concludes the work.

2. THE RELATIONSHIP BETWEEN POLYSEMY AND METAPHOR

Traditionally, polysemy is seen as an instance of a word having multiple related meanings. However, the Cognitive Linguistics approach is of the view that these multiple meanings are not arbitrary but highly motivated through specific cognitive processes. This section goes into the traditional view of polysemy and its limitations, before going into the Cognitive Linguistics approach and solutions to the limitations of the traditional approach especially through the Conceptual Metaphor Theory,

2.1 The Traditional Approaches to Polysemy

In the discussion of polysemy, a familiar term 'homonymy' is unavoidable. The traditional distinction between polysemy and homonymy is based on whether there is one or two lexical terms involved. Lyons (1977, p.550) considers them as two types of lexical ambiguity and introduces some criteria for deciding when it is polysemy and when it is homonymy. One criterion is etymological information about the lexical item in question. Lexical items with the same origin are considered as polysemic, whereas if they have evolved from distinct lexemes in some earlier stage of the language then they are regarded as homonymous. This condition is neither satisfactory nor decisive because the history of the language does not always reflect its present state.

Another criterion is the unrelatedness vs. relatedness of meaning; i.e. the native speaker's feeling that certain meanings are connected and that others are not. One of the major drawbacks that Lyons states for this criterion is that relatedness of meaning appears to be a matter of degree, together with the fact that sometimes native speaker's intuitions are far from being the true interpretation.

A third way of attempting to establish polysemy is to search for a central or core meaning. Based on the classical definition of a category as a set of necessary and sufficient conditions for membership, Allerton (1979) proposes that when different senses of a lexeme share a core meaning, they are polysemous. On the other hand, cases when the core meaning cannot be extracted are to be considered as homonymous. For instance, the word *paper* can mean 'newspaper', 'document' and 'academic lecture'; all these senses share the core meaning of 'important written or printed material'. The disadvantage of this criterion criterion is again to decide what the core meaning is.

Although these traditional approaches to polysemy provide a more or less successful descriptive analysis of what polysemy and homonymy are; what lexical items are homonymous or polysemous, they however fail to address some fundamental issues: the reasons why these lexical items have several senses attached to them in the first place; how these meanings are structured: are these senses grouped under the same lexical item by chance or is there any motivation for the lexical item to convey specific meanings?

These issues, neglected by traditional approaches, are at the core of investigation in Cognitive Semantics (a branch of Cognitive Linguistics). In the following section, I present the explanations that this model provides for these questions.

2.2 The Cognitive Linguistics Approach to Polysemy

Cognitive Linguistics is an approach to language which emerged in the 1970s as a reaction against the dominant generative approach which maintains an autonomous view of language. Cognitive Linguistics argues that both the design features of languages, and our ability to learn and use them are accounted for by general cognitive abilities, kinaesthetic abilities, our visual and sensorimotor skills, and our human categorisation strategies, together with our cultural, contextual, and functional parameters (Barcelona, 1997, p.8). Unlike other approaches such as the Modularity Hypothesis (cf. Chomsky, 1986; Fodor, 1983) that view the ability to learn one's first language as a unique faculty, as a special innate mental module; in Cognitive Linguistics, language is understood as a product of general cognitive abilities. An offshoot of this is termed the 'cognitive commitment', which emphasizes the fact that linguistic theory and methodology must be consistent with what is empirically known about cognition, the brain and language (Lakoff 1990, p.40). The notion of 'embodiment' is one of the most fundamental tenets in the Cognitive Linguistics enterprise (Lakoff and Johnson 1980, 1999). This implies that mental categories are not disembodied, abstract and human independent categories. Instead, they are created on the basis of our concrete experiences and under the constraints imposed by our bodies. Johnson (1992, p.347) asserts that "they are motivated and grounded more or less directly in experience, in our bodily, physical, social and cultural experiences, because after all, we are beings of the flesh". The implication of this is that Semantic structure reflects the mental categories which people have formed from their experience and understanding of the world. The process of building our semantic structure is through a process termed 'categorisation'.

Human categorisation is usually unconscious and automatic. This process involves the formation of categories. Categories are the basic unit of thought and language. A category is the conceptualisation of a collection of similar experiences that are meaningful and relevant to us. Categories are formed for things that "matter" in a community (Radden and Dirven 2007: 3ff). Our conceptual categories are also laid down in language as linguistic categories through categorization. The process of establishing categories within an ecological system is known as categorisation. Categorisation means drawing "conceptual boundaries" and giving structure to an unstructured world around us. The dominant view in Cognitive linguistics is that categories (lexical categories like 'car' and grammatical categories like 'nouns' and 'verbs') have an internal structure of membership with a central member termed the 'prototype' and the non-central members termed the 'periphery'. For a lexical category like 'car', the prototype (the best type or exemplar of a category) is a 'saloon car'. Peripheral members of the category 'car' includes 'van', 'truck', 'estate', 'jeep', etc. A grammatical category like a transitive verb, the prototypical ones can be used in the passive voice, whereas the less prototypical transitive verbs can only marginally form a passive. This is shown in (2) below:

2.   Active   Passive
  a.Sally *bought* the book.   a'.The book was *bought* by Sally.
  b. Sally *liked* the book.   b'. ?The book was *liked* by Sally.
  c.Sally *had* the book.   c'. *The book was *had* by Sally.
             (cf. Radden and Dirven, 2007, p.8)

In the example above, it can be seen that sentences with prototypical transitive verbs can be freely passivised as in (2a), sentences with less prototypical transitive verbs can only marginally form a passive (2b), and sentences with peripheral transitive verbs do not allow the passive at all (2c).

Having briefly discussed categorization, we return to the issue of polysemy which Sweetser (1986, p.528) describes as "referring to a grouping of related senses of a single lexical item; often there is observable direction to the relationship between these senses, one being more central than, or prior to, others." From this statement, polysemy involves a process of categorization and this is made possible by a cognitive process called 'metaphor'. In the next section we briefly discuss the phenomenon of metaphor as well as the Conceptual Metaphor Theory by Lakoff and Johnson (1980).

2.2.1 Conceptual Metaphor Theory

Evans (2019, p.306) opines that for over 2,000 years, metaphor was studied within the discipline known as 'rhetoric'. Furthermore, due to its central importance as one of the rhetorical devices called 'tropes', metaphor came to be known as the 'master trope'. Within this traditional view of metaphor, metaphor was characterised by the schematic form:

3. A is B, as in *Achilles is a lion*

Evans (2019, p.306), following Grady (1999) calls metaphors of this kind 'resemblance metaphors.' In this case, the resemblance is not physical but perceived: Achilles does not actually look like a lion. Instead, due to cultural knowledge which holds that lions are courageous, by virtue of describing Achilles as a lion, we associate a lion's qualities of courage and ferocity with Achilles. Evans goes on to note that although resemblance metaphors have received considerable attention within Cognitive Linguistics, the primary focus has been on the kind of everyday language called 'conceptual metaphors' which are found in the following examples:

4. a. Look *how far* we've *come*.
  b.We can't *turn* back now.
  c. It's been *a long, bumpy road*.
  d. We'll just have to *go our separate ways*.
  e.This relationship is *a dead-end street*.(cf. Evans, 2019, p.307)

The above examples represent common ways of referring to particular experiences of relationships such as marriage. Again, unlike resemblance metaphors, they do not make use of the linguistic formula 'A is B'.

George Lakoff and Mark Johnson first introduced the conceptual metaphor theory in 1980. The theory has been developed in a number of subsequent publications. It is also one of the earliest theoretical frameworks within the cognitive linguistics enterprise. In conceptual metaphor theory, the basic idea is that figurative language (especially metaphor and metonymy) is not just a stylistic feature of language; instead, thought itself is basically metaphorical in nature. In this light, our conceptual structure is organised by virtue of cross-domain mappings which give rise to what we call 'conceptual metaphors', also described as correspondences between conceptual domains. The expressions in (4a-e) above have something in common. In addition to describing our experiences of relationships, they also rely upon expressions that relate to the conceptual domain JOURNEYS. Evans (2019) affirms that our ability to describe relationships in terms of journeys appears to be highly productive.

A (conceptual) domain is described by Radden and Dirven (2007, p.11) as "the general field to which a category or frame belongs in a given situation." For example, a knife belongs to the domain of 'eating' when used for cutting bread on the breakfast table, but to the domain of 'fighting' when used as a weapon. According to Lakoff and Johnson, a conceptual metaphor is the conventional association of one domain with another. These two domains are called the 'target' (the domain being described) and the 'source' (the domain in terms of which the target is described). In (4a-e), JOURNEYS is the source domain, while RELATIONSHIPS is the target domain. Evans (2019) adds that metaphors are 'conceptual' (rather than purely linguistic) because the motivation

for metaphor resides at the level of conceptual domains. Lakoff and Johnson argue that not only do we speak in metaphorical terms, but we also think in metaphorical terms. From this point of view, linguistic expressions that are metaphorical in nature are simply reflections of an underlying conceptual organisation (Evans, 2019, p.308).

Conceptual metaphors are unidirectional. This implies that metaphors map structure from a source domain to a target domain but not the other way round. For example, while we can conceptualise RELATIONSHIPS in terms of JOURNEYS, we cannot conventionally structure JOURNEYS in terms of relationships. Kövecses (2002) carries out an extensive survey to find the pattern of conceptual domain mappings and the motivation behind such a pattern. Kövecses observes that the most common source domains for metaphorical mappings include domains relating to the HUMAN BODY (e,g. the heart of the problem), ANIMALS (a sly fox), FOOD (he cooked up a story) and FORCES (don't push me!). On the other hand, the most common target domains include conceptual categories such as EMOTION (she was deeply moved), MORALITY (she resisted the temptation), THOUGHT (I see your point), HUMAN RELATIONSHIPS (they built a strong marriage) and TIME (time flies) (cf. Evans, 2019, p.311). An example of the conceptualisation of the TIME domain in terms of SPACE and MOTION is shown in (5) below:

> 5. a. Christmas is *coming.*
> b.The relationship lasted a *long time.*
> c. The time for a decision *has come.*
> d. *We're approaching* my favourite time of the year. (cf. Evans, 2019, p.311)

One of the assumptions within the conceptual metaphor theory is that the conceptual associations between source and target domains are usually considered universal, since they are grounded on an experiential bodily basis, i.e. embodied human experience. For example, it has been shown that the target domain of emotions is usually conceptualised by means of the source domain of physiological changes in the body (Kövecses, 2000). A typical example of such a conceptual correspondence is the metaphor ANGER IS A HOT FLUID IN A PRESSURISED CONTAINER. This metaphor is based not only on our knowledge of the behaviour of liquid substances in pressurised containers but also on our physical experience when we are angry, that is, an increase in skin temperature, blood pressure and other activities in the nervous system (Ekman, Levenson and Friesen, 1983; Gibbs *et al.*, 1997; Levenson, Ekman and Friesen, 1990; Levenson *et al.*, 1992; Valenzuela and Soriano, 2007; cited in Ibarretxe-Antuñano, 2008, p.15ff).

After its introduction in 1980, Conceptual Metaphor Theory (CMT) has been criticized for a number of reasons namely:

> i. the issue of methodology

> ii. the issue of direction of analysis
> iii. the issue of schematicity
> iv. the issue of embodiment
> v. the issue of the relationship between metaphor and culture

We briefly highlight a few of these issues, as well as the responses by supporters of CMT. On the issue of methodology, the critics of CMT argue that most researchers in CMT set up conceptual metaphors on the basis of intuitive and unsystematically found linguistic metaphors. That is, many CMT researchers examine their own mental lexicons or the data found in dictionaries and thesauri, and on the basis of some linguistic examples they arrive at and suggest conceptual metaphors. Kövecses (2008, pp.168-170), responds that "the goal of cognitive linguists working within the original Lakoff-Johnson framework is to postulate certain conceptual metaphors at the supraindividual level, whereas the critics' major goal is to identify linguistic metaphors systematically at the individual level (and then arrive at hypothetical conceptual metaphors). Both goals are valid but only on their respective levels of metaphor analysis. In addition, the different goals complement each other.

Another criticism against CMT concerns the direction of metaphor analysis. Here, there are two competing approaches: the *top-down approach* and the *bottom-up approach*. In the top-down approach, conceptual metaphors are postulated on the basis of a small number of decontextualized examples. This approach is practiced by researchers in CMT. Critics propose the bottom-up approach based on the assumption that metaphors at the linguistic level are characterized by a great deal more irregularity than those who work top-down care to admit. Kövecses (2008: 170ff) maintains that if the goal of conceptual metaphor analysis is to reveal the nature and structure of abstract concepts in as much detail and depth as possible, quantitative metaphor analysis needs to be supplemented by intuitive qualitative analysis.

On the issue of schematicity, some critics claim that in real discourse, metaphors can be found at the basic level, and not at the superordinate level. He argues that if they were on the superordinate level, then the words that belong to the same physical domain and that have similar meanings would have to have the same metaphorical meaning. But since this is not so, mappings occur not at the superordinate level but at the more specific basic level. Kövecses (2008) explains that the the concepts belonging to a source domain ((e.g., the CONTAINER domain may have the meaning foci of "pressure" and "quantity") may participate in different mappings. The different meanings arise naturally from this account, and they are not anomalies within the theory. Most of the criticisms against CMT have been adequately addressed (see Kövecses 2008).

In the next section, we shall examine the MIND AS BODY metaphor which is considered as universal, and how it relates to perception verbs in language.

3. THE SEMANTIC FIELD OF PERCEPTION

In this section, we look at the semantic field of perception and the verbs that lexicalize the notion of perception, as well as the polysemy that exists in this field. Subsequently, we discuss the motivation behind the polysemy of the verbs.

3.1 Perception

The word "perception" comes from the Latin words *perceptio*, *percipio*, and means "receiving, collecting, action of taking possession, and apprehension with the mind or senses."

In common terminology, perception is defined by Longman Dictionary of Contemporary English as "a) the way you think about something and your idea of what it is like; b) the way that you notice things with your senses of sight, hearing etc.; c) the natural ability to understand or notice things quickly." In philosophy, psychology, and cognitive science, perception is the process of attaining awareness or understanding of sensory information.

Ou (2017) explains that the perception process consists of three stages: selection, organization, and interpretation. Selection is the first stage in the process of perception. In daily life there are countless stimuli arriving at our sensory organs simultaneously and waiting to be processed. However, we cannot perceive all the information available to us. Instead, we only pay attention to those stimuli which we are familiar with or interested in through the selective process of perception. So, we perceive only part of the information from the environment through a selective process. An analogy of this process is the making of maps, whereby only important information is marked in the map. Otherwise, it would be impossible to draw a map

The second stage in the perception process is organization. Ou (2017, p.19) relates that After selecting information from the outside world, we need to organize it in some way by finding certain meaningful patterns. This organization stage is accomplished by putting things or people into categories, and that is why it is also termed categorization by some researchers.

Ou adds that perception at this stage enjoys two characteristics. First, the organizing process gives human perception structure. We always put raw stimuli from the outside world into structured meaningful experience. Second, the process shows that human perception possesses stability. That is to say, after we select stimuli and put them into categories, the selected stimuli become durable.

Interpretation is the third stage in the perception process. This stage refers to the process of assigning meaning to the selected stimuli. However, different people may give different interpretations of the same stimuli. Ou (2017, p.16) following Samovar et al (2000) reveals that such interpretation differences arise because of the influence of our individual cultures on our perceptual lens. Ou (2017, p.20) notes that these 3 stages of the perception process fall under the physical dimension of

perception. He goes further to state a second dimension of perception: the psychological dimension. Ou adds that the psychological dimension of perception results in difficulties in intercultural communication due to the difference in the cultures of the speakers.

For the purpose of this work, we shall focus on the physical dimension of perception physical differences that exist between one person and another are inconsequential when compared with psychological ones.

The structure of a semantic field may be looked upon as the outcome of the interaction of a set of more or less field-specific semantic components and a number of general field-independent components that cut across all verbal semantic fields (Viberg, 1984, p.123ff). As for the field of perception, the most important field-specific components are the five sense modalities: *sight, hearing, touch, taste,* and *smell.* Hence, verbs which denote these five sense modalities are collectively termed 'perception verbs. Hence, verbs which denote these five sense modalities are collectively termed 'perception verbs. A number of studies have been carried out in this field, partly due to the wide range of syntactic and constructional alternatives characteristic of the verbs in this field. We highlight some of the studies in the field as well as the issue of polysemy of the verbs of perception in the next section.

3.2 Polysemy and Metaphor in Verbs of Perception

The polysemous character reflected into a wide range of syntactic and constructional alternatives makes perception verbs a highly interesting semantic field to approach. A diversity of papers analysing the polysemous structure of perception verbs namely their semantic extensions has been drawn up by various linguists (Rojo and Valenzuela, 2004-2005; Sweetser, 1990; Viberg, 1984; Ibarretxe-Antuñano, 1999, 2002, 2008; van Putten, 2020, e.t.c.). Their comments on polysemy and metaphor of perception verbs are in a chronological order.

Van Putten (2020) affirms that typological linguistic work investigating the encoding of the sensory modalities in verbs was pioneered by Viberg (1984). Viberg (1984) studied verbs of perception in fifty-three languages belonging to fourteen linguistic families. This represents the first largest cross–linguistic study conducted in the field of semantic change. In his study of the polysemy patterns, he limits his analysis only to passive verbs which are more polysemous than active or copulative verbs. In the case of English, the first conclusion emerging consists of the strong polysemy within this semantic field with nine verbs sharing fifteen possible meanings. He observes that languages differ in their number of basic perception verbs. Whereas some languages, like English, have a verb for each of the five senses (vision, hearing, touch, taste, smell), other languages combine multiple sensory modalities in a single verb. Viberg assumes that

such conflations of multiple sensory modalities come into existence through meaning extensions, where a verb that originally refers to a single sensory modality acquires additional meanings. He observes that all languages have polysemy patterns whose semantic changes correspond to the scheme shown in Fig (1).
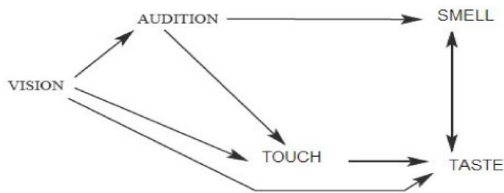

Figure 1
Viberg's field of perception and paths of extension (cf. Viberg, 1984, p.147)

This scheme should be interpreted as follows: if initially, a verb expresses the visual modality, then the allowed extensions are directed towards audition, touch and taste. If the original meaning expresses audition, the possible extensions could be touch and smell. If initially the tactile modality is expressed, taste and smell represent the only possible semantic extensions. Finally, the verbs denoting taste and smell can extend their meanings towards smell respectively taste. However, it is important to observe that Viberg's work focuses only polysemy of this class of verbs. He makes no mention of the conceptual basis for the polysemy in perception verbs.
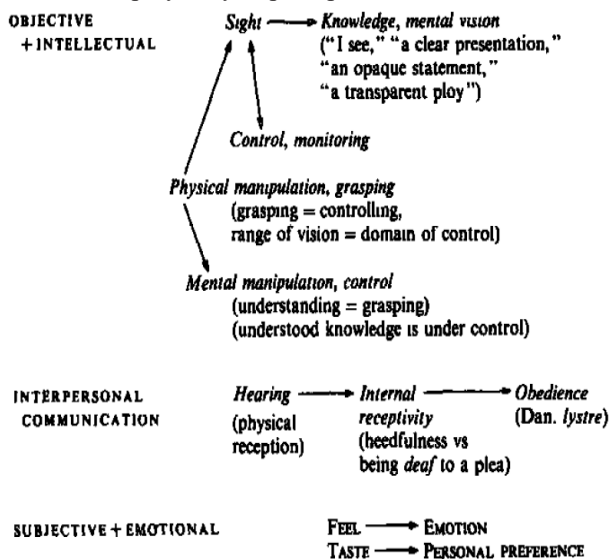

Figure 2
Sweetser's (1990) ways of semantic extension in English perception verbs (cf. Sweetser, 1990, p.38).

Sweetser (1990) fills the gap left by Viberg by treating the additional meanings of perception verbs outside the domain of perception in English. She advances the concept of MIND AS BODY metaphor implying the conceptualization of one type of experience (the mind) in terms of another (the body). This metaphor could be considered the equivalent of Lakoff and Johnson's

conceptual metaphor. Applying the MIND–AS–BODY conceptual metaphor to English perception verbs, "the metaphorical mappings take place between two domains of experience: the vocabulary of physical perception as the source domain and the vocabulary of the internal self and sensations as the target domain." According to Sweetser these correspondences go in a specific direction that is from the domain of bodily experience to that of cognitive and emotional states. This applies to English perception verbs whose metaphorical extensions cover two domains of experience: the source domain represented by the vocabulary of physical perception and the target domain expressed by the vocabulary of internal feelings.

Sweetser considers vision to be the main source of collecting objective information due to its capacity to select the prominent trait of one stimulus. This is one of the reasons she associates vision with the objective and cerebral part of our mental existence.

Ibarretxe-Antuñano (2002) enriches the list of English perception metaphors proposed by Sweetser (1990) with new semantic extensions in the case of the five types of perception. Her list is relevant to the polysemous character of perception verbs. Also, it raises the issue of the motivated or arbitrary nature of the semantic extensions as in the case of verbs like *see* and *hear* used with the meaning of *understand* in (6) and (7) respectively:

6. I *see* what you mean by that.
7. If I have *heard* well, they want to say that I have no chance. (cf Manasia 2016, p.59)

The Table 1 presents the list of the conceptual metaphors in perception verbs proposed by Ibarretxe-Antuñano (2002).

Table 1
Ibarretxe-Antuñano's (2002) metaphors in the perceptual domain (adapted from Ibarretxe-Antuñano, 2002, p.116)

Sense	Metaphor	English example
Vision	Understanding is seeing	I explained the problem but he could not see it.
	Foreseeing is seeing	I can see what will happen if you don't help.
	Imagining is seeing	Do all your people see themselves as having a selling role?
	Considering is seeing	She thinks it is soft of him to see them as belonging to a universal latent hostility.
	Studying/ Examining is seeing	I have to see how I fix it.
	Finding out is seeing	Please see who's knocking.
	Making sure is seeing	See that it gets done right away.
	Taking care is seeing/ looking after is seeing	He looked after his younger brother.
	Witnessing is seeing	He has seen much unhappiness in this life.
	Suffering is seeing	
	Obeying is seeing	
	Refraining is seeing	
	Being involved is having to see	

Sense	Metaphor	English example
Hearing	Paying attention is hearing	*Do not listen to the tempting voices.*
	Obeying is hearing	*They didn't listen to advice and instruction.*
	Being told/ knowing is hearing	*I heard you are in catering these days*
	Understanding is hearing	*If I have heard well, you want to say that there is no solution.*
	Being trained is being heard	
	Having an agreement is having a hearing	
Touch	Affecting is touching	*An appeal that touches us deeply.*
	Dealing with is touching	*I wouldn't touch that business.*
	Considering is touching	
	Persuading is touching	
Smell	Suspecting is smelling	*If a case smelt, Sherlock Holmes would smell it.*
	Sensing/guessing is smelling	*Mary can smell money.*
	Investigating is smelling/sniffing around	*The police have been sniffing around here again.*
	Showing contempt is sniffing	*The critics sniffed at the adaptation of the novel to film*
	Corrupting is smelling	
	Not to get wind of something is not to smell	
	Prophesying is smelling	
Taste	Experiencing something is tasting	*He has tasted the frustration of defeat*
	Producing a feeling is tasting	
	Knowing is tasting	

Note that in Table 1, some of the metaphors are not attested in English. As such, they are left blank. However, these metaphors are possible in Spanish and Basque (Ibarretxe-Antuñano 2002). We shall use Ibarretxe-Antuñano's (2002) list of metaphors in the domain of perception as a basis for the discussion on Igbo perception verbs in the next section.

4. IGBO VERBS OF PERCEPTION

Uwalaka (1988) uses the Case Grammar approach to discuss the Igbo verb. In her work, she attempts to explore the semantic and syntactic characteristics of the different classes of the Igbo verb. One of such classes is what she terms *experiential verbs*. She explains that the experiential verbs are ones which refer to an entity's perception, cognition, sensation and reaction. She distinguishes the experiential verbs from action verbs which focus on what an entity does, verbs of occurrence which focus on an observable phenomenon which, in the case of process verbs, affects an entity. On the other hand, experiential verbs centre on an entity's inner experience. Uwalaka (1988, p.149) goes further to list the main sub-groups of experiential verbs in Igbo as shown below:

8. i. Verbs of perception
   ii. Verbs of cognition
   iii. Verbs of sensation
   iv. Verbs of reaction which are further sub-divided into:
   a. Emotional-response verbs
   b. Stimulus-response verbs
   c. Verbs of verbalization

As stated earlier, our focus shall be the verbs of perception in the Igbo. Uwalaka defines perception verbs as those which designate the ways an experiencer NP becomes consciously aware of the external world. The verbs in this sub-group therefore relate to the five senses and they include the following:

9.	ịhụ̄	to see'
	ịnụ̄	to hear'
	ịnụ̄ ishi'	to perceive smell'
	ịnụ̄ ụ̄tọ'	to taste'
	imēsa/imētu'	to touch/ feel (of hand)'

Uwalaka also mentions that the above listed Igbo verbs of perception have semantically related action verb counterparts except for *imēsa/imētu 'to touch/ feel (of hand)'* which is more or less an action verb as seen in Table 2.

Table 2
Igbo verbs of perception and their action verb counterparts (adapted from Uwalaka, 1988, p.150)

Experiential verbs of perception		Action verb counterparts	
ịhụ̄	'to see'	ilē (anya)	'to look'
ịnụ̄	'to hear'	igè ntị̄	'to listen'
ịnụ̄ ishi	'to smell'	ishì n'imi	'to smell'
ịnụ̄ ụ̄tọ	'to taste'	igwū ọnụ / īdē ọnụ	'to taste'

In the table above, Uwalakas distinction between experiential and action verbs of perception is similar to Viberg's components of *activity* and *experience*. *Activity* refers to an unbounded process that is consciously controlled by a human agent, whereas *experience* refers to a state (or inchoative achievement) that is not controlled (Viberg, 1984, p.123ff).

It is also important to observe that the verb for hearing in Igbo is also used to denote the sense of smell and taste (with a difference in the complements they take). Apparently, this is a case of polysemy which also conforms to the pattern attested by Viberg (see Fig. 1).

4.1 Igbo Correspondences in the MIND-AS-Body Conceptual Metaphor

In this section, using Ibarretxe-Antuñano's (2002) list of metaphors in the domain of perception, I analyse how the MIND-AS-BODY conceptual metaphor is present in the five perceptual modalities of Igbo. The materials for the study includes three bilingual dictionaries (Williamson, 2013. Igwe, 1999, and Echeruo, 1998).

Most of the data examples arose from consultations with native speakers. Being that the aim of this study is to show that the meanings of the metaphors can be inferred in Igbo, there is no comment on their respective frequency of usage or occurrence.

Finally, the Green and Igwe's (1964) tone-marking convention is employed. Here, only the low tone (`) and the downstep (-) are marked, while all high tones remain unmarked. Also, in the glossing of the Igbo sentences, the following approach is adopted: the first line is the raw language data, the second line is the gloss, the third is the literal meaning of the Igbo sentence, while the fourth is the English equivalent.

4.1.1 Vision

Ibarretxe-Antuñano (2002) reveals that verbs of sight can convey a vast number of senses. She organises them into four different categories according to the mappings between the domain of physical visual perception and other domains of experience. These categories are (i) intellect and mental activity ("understand", "foresee"…); (ii) social relationships ("meet", "visit"…); (iii) reliability and assurance ("find out", "make sure"…), and (iv) miscellany ("to witness", "to refer"…). All these groups, except for the social relationships, can be considered sub-cases of the MIND-AS-BODY metaphor. We analyse the Igbo verbs of sight in more detail. The verbs used are *ịhụ̄* *'to see'* and *ilē (anya)* *'to look'*.

4.1.1.1 Intellect and Mental Activity

Here, the mapping takes place between the domain of physical visual perception and the domain of mental processing. The following metaphorical sub-mappings are possible in Igbo:

(a) FORESEEING IS SEEING:

10. M na-ahụ̄   na ajọ   ihe   gà-ème   Ya mà ọ bụrụ
nà ò kwụ̀ghị ugwọ o   ji
   1SG PROG-see COMP bad thing PROG-happen 3SG if
3SG pay-NEG debt 3SG hold
Me seeing that bad thing will do him if that he not pay debt he owe
'I can see that something bad will happen to him if he does not pay his debts'

In (10) we foresee what is going to happen before it actually takes place.

(b) UNDERSTANDING IS SEEING:

11. A   hụla   m   nà   I   nweghi
ǹsọpụrụ.
   IMP   see-PERF   ISG   COMP   2SG   have-NEG respect
Seen me that you have not respect
'Now I understand that you have no respect'

(c) IMAGINING IS SEEING:
Here, we visualize a counterfactual situation which has already taken place or might take place in the future as shown in (12) and (13).

12. Kà   ọ̀   nà-èhi   ụra, ọ   `hụ̀rụ   onwe
ya n'òbòdo   òyibo.
   While 3SG PROG-eat sleep, 3SG see-rV(PAST) self
3SG in land Foreign
When he sleeping sleep, he saw himself in land foreign
'While he was asleep, he thought/imagined himself abroad.'

13. M nà-àhụ   ya kà   ezigbo mmadù
1SG PROG-see 3SG COMP   good person
I am seeing him like good person
'I think he is a decent person.'

Seeing is also related to the ability to form an opinion about something, to regard a certain thing in a certain way. Here we have the metaphor CONSIDERING IS SEEING as illustrated in (14)

14. Kedu ka   I   si   hụ akwa o   yi?
   How COMP 2SG from see cloth 3SG wear
How do you see the cloth he/she is wearing?
'What do you think about what he/she wore?'

One could argue, that (13) is also an instance of the metaphor CONSIDERING IS SEEING as it could be construed as involving the formation of an opinion about someone.

(d)   EXAMINING IS SEEING:
Here, vision is understood as as the faculty that enables one to revise or examine a situation or study a case

15. I   gà-èje   ùlọ̀ ogwụ̀   ka   dokita hụ
gi   anya
   3SG   FUT-go   house medicine   COMP doctor see
2SG   eye
You will go to the hospital let doctor see you
'You'll have to visit the hospital so that the doctor can examine you.'

4.1.1.2 Reliability and Assurance

Ibarretxe-Antuñano (2002) notes that human beings regard sight as the most reliable sense when it comes to gathering information. This is the reason why sight verbs can convey meanings such as "to ascertain, to find out", "to make sure", and "to take care".

(e) FINDING OUT IS SEEING
Here, the mapping takes place between the activity of seeing something and the activity of discovering something as seen in (16).

16. Bìko,   lèe   anya n'azụ ùlọ̀,   m   nụ̀rụ̀ olu
mmadù,
   Please   look eye   in back house, 1SG   hear   voice
person
   Please look eye behind house, I hear voice person
 'Please, take a look behind the house, I heard someone's voice.'

(f) TAKING CARE OF SOMETHING IS SEEING SOMETHING

17. O   nèdò   nwannē   ya   nwokè anya
   3SG look-keep sibling 3SG male   eye
S/he looked after sibling her male eye
'S/he took care of his/her brother'

It is important to note that in this sub-group of metaphors, only the active counterpart of the verb for vision (ilē anya 'to look') is used.

4.1.1.3 Miscellany: "to witness"

Ibarretxe-Antuñano explains that in the metaphor WITNESSING IS SEEING (To witness is to experience) the emphasis is on the person that is looking, who acts as a "passive witness" of the events that happen, i.e. does not personally take part in what is going on as shown in (18).

18. Nwokè ahụ̀ afụgokwa   ifve na ndù ya (Awka variety)
    Man   that ART-see-PERF-DEF thing in life 3SG
That man has seen things in his life.
'That man has experienced a lot (hardships) in his life.'

Apart from the cross-linguistic meaning expressed above, Igbo also expresses a further meaning of SUFFERING IS SEEING as seen in (19).

19. I   ga-afu   ihe!
    2SG   FUT-see   thing!
    You will see something
    You will suffer!

The expression in (19) is usually used as a threat.

4.1.2 Hearing

Ibarretxe-Antuñano (2002) explains that 'hearing' is said to be the sense of linguistic communication in both the concrete and abstract meanings. The verbs analysed here are the Igbo equivalents of the verbs *hear* and *listen* (ịnụ̄ and *igè ntị̄* respectively)

(a) PAYING ATTENTION IS HEARING:

20. I   kwèsìrì igè ntị̄ ma ụkọ̀Chukwū nà-ekwu okwu.
    2SG should listen ear while priest AUX-speak word
    You should hear what the priest is saying
    'You ought to listen when the priest is preaching.'

In example (20) the person that utters the sentence is not just asking the hearer to hear him, but demanding attention from him. A further development of this meaning is the case of the metaphor OBEYING IS HEARING, where the speaker, apart from demanding attention, is also asking the hearer to do what he is asked to do. This is seen in (21).

21. Nwa ahụ̀ adịghị   à-nụ   ihe
    Child that is-NEG ART-hear thing
    That child does not hear anything
    'That child is stubborn (disobedient)'

(b) BEING TOLD/KNOWING IS HEARING:

This is another extended meaning of hearing verbs. When we use hearing verbs in this sense, we are not simply saying that we heard somebody saying something, we imply that we "know" something, and that the information that we have is second hand, although the informant does not necessarily have to be mentioned as seen in (22).

22. M nụ̀rụ̀   `na nwùnyè gi mụ̀rụ̀ nwa.
    1SG hear-PAST COMP wife 2SG give birth-PST child
    I heard that your wife gave birth
'I learnt your wife put to bed.'

(c) UNDERSTANDING IS HEARING

Just like with vision verbs, verbs of hearing can also be mapped with mental activities like "understanding" with this metaphor. This is seen in (23).

23. Ì nụ̀rụ̀   ifve   m kwùrù? E kwu-cha-go m!
(Awka variety)
    2SG hear-PAST thing 1SG say-PAST IMP say-complete-PERF 1SG
Did you hear me? I'm done talking!
'Do you understand me? I have nothing left to say.'

4.1.3 Touch

Ibarretxe-Antuñano (2002) following Kurath (1921) reveals that the sense of touch has always been related to the field of emotions, with expressions such as *I'm deeply touched* or *Touching words* widely used in English. She goes further to outline four subcases of the MIND-AS-BODY metaphor here: AFFECTING IS TOUCHING, DEALING WITH IS TOUCHING, CONSIDERING IS TOUCHING, and TEMPTING IS TOUCHING.

(a) AFFECTING IS TOUCHING:

Here, what is affected is the emotional side of the person in question as shown in (24)

24. Okwu ọgọ̀ m nwokè metụ-rụ   m n' obì.
    Talk in-law 1SG male touch-PAST 1SG in heart
My in-laws words touched me in my heart
'I was moved (deeply touched) by my in-laws words'

In (24) my in-laws speech caused me to react emotionally; I could not remain with the same feelings or ideas that I had before hearing it.

(b) DEALING WITH SOMETHING IS TOUCHING:

This is another metaphorical mapping in the sense of touch as seen in the English example (25).

25. I wouldn't touch that business (cf. Ibarretxe-Antuñano 2002, p.105)

In Igbo, this metaphor is expressed by the verbs *bì (aka) 'to lay hands upon'*, and *kpa (aka) 'to move with hand' (Awka variety)* instead of *imēsa/imētu 'to touch/ feel (of hand)'*. This is shown in in (26) and (27).

26. M bìe   gi aka, i nọ̀rọ̀   wayọ̀.
    1SG lay-IMP 2SG hand 2SG stay-APPL calm
If I lay my hands on you, you will stay quiet.
'You will behave yourself when I lay my hands on you (deal with you)'

27. M kpa   gi aka i nọ̀rọ̀   wayọ̀.
    1SG lay-IMP 2SG hand 2SG stay-APPL calm
'If I lay my hands on you, you will behave yourself.'

The metaphors CONSIDERING IS TOUCHING and TEMPTING IS TOUCHING are not attested in Igbo.

4.1.4 Smell

Ibarretxe-Antuñano (2002) following Viberg (1984) and Sweetser (1990) maintains that the sense of smell is generally considered a weaker source domain for

metaphorical meanings in comparison with the other senses. The verb analysed here is *iṇụ̄ ishi 'to perceive a smell'*. Ibarretxe-Antuñano (2002) lists four cross-linguistic metaphorical extensions of the verb of smelling with the verbs *smell* and *sniff*: SUSPECTING IS SMELLING (e.g. *Things… wouldn't always get past the sharp-eyed QC. If a case smelt, he would smell it*), GUESSING/SENSING INTUITIVELY IS SMELLING (e.g. *Mary can smell money*), INVESTIGATING IS SNIFFING AROUND (e.g. *The police have been sniffing around here again*), and SHOWING CONTEMPT IS SNIFFING (*The critics sniffed at the adaptation of the novel to film*). In Igbo, only one metaphor: GUESSING/SENSING INTUITIVELY IS SMELLING is possible as shown in (28).

28. I   hụ ọ̀yị̀   m nwokè, I nụ isi   ego.
    2SG see friend 1SG male, 2SG hear smell money
    If you see my friend, you will perceive the smell of money
    'When you see my friend, you'll know he is wealthy.'

The meaning in sentence (28) is that the people involved can sense, recognise something intuitively. Also, particularly interesting is the fact that the verb *iṇụ̄ (to hear)* is used to represent the sense of smelling and tasting.

4.1.5 Taste

Ibarretxe-Antuñano (2002) states that the physical sense of taste is generally linked to personal likes and dislikes in the mental world. She goes further to note that one of the main metaphorical mappings that taste verbs have cross-linguistically is EXPERIENCING SOMETHING IS TASTING as in (29).

29. He has tasted the frustration of defeat

She argues that this metaphor can also be mapped as ENJOYING IS TASTING. This sense is possible in Igbo as seen in (30).

30. Mgbe ọ na-lacha   oloma, ọ nụghị   ùtọ ya.
    Time 3SG PROG-lick orange, 3SG hear-PAST taste 3SG
    She did not hear the taste of the orange when S/he ate it.
    'S/he did not enjoy the orange when S/he ate it.'

5. SUMMARY AND CONCLUSION

The paper started with the discussion of polysemy as a phenomenon where words have two or more similar meanings. It was also shown how this similarity between the meanings of words are due to a general cognitive process known as metaphor. Metaphor is a way of "construing new concepts from old concepts" (Bartsch 2002: 73). As a conceptual and linguistic device, it allows us to talk in a very precise way about the world around us, including things that are for certain reasons difficult to talk about, being for example more abstract or less cognitively accessible. Since they do not involve the

formation of new lexical, morphological or syntactical units, but exploit existing linguistic resources, the use of metaphor frequently results in polysemy.

Consequently, both phenomena were discussed before observing the polysemous nature of perception verbs and some studies on the MIND-AS-BODY metaphor. The MIND-AS-BODY is a conceptual metaphor whereby the mental processes or sensations is conceptualised in bodily terms. In other words, the mind is understood as a separate person, with its own bodily functions and necessities. One of these bodily functions is perception (a biological process wherein the brain derives descriptions of objects and events in the world, using the information gathered by the senses).

Finally, it is observed that just like in English, Spanish and Basque (the 3 languages used in Ibarretxe-Antuñano's (2002) study), Igbo exhibits an almost identical mapping pattern, especially in the verbs of vision and hearing. Furthermore, being that Igbo is typologically different from the languages used in Ibarretxe-Antuñano's (2002) study, the Igbo language gives support to Sweetser's (1990) claim that the MIND-AS-BODY metaphorical extensions are a cross-linguistic phenomenon.

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