

MIND-AS-BODY AS A CROSS-LINGUISTIC CONCEPTUAL METAPHOR*

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1. PERCEPTION VERBS AND METAPHOR

The fact that certain verbs of perception could refer to other non-physical meanings has long been established in many etymological studies such as Bechtel (1879), Kurath (1921), and Buck (1949). These researchers provide us with a great deal of detailed information on the etymological origin of these verbs, but unfortunately they did not investigate the reasons why the meaning of these verbs evolved as they did.¹ At the end of the last century, Sweetser's (1990) –within the framework of Cognitive Linguistics– reanalyses some of the semantic extensions of perception verbs in English. Her main aim is to provide a motivated² explanation for the relationships between senses of a single morpheme or word and between diachronically earlier and later senses of a morpheme or word.

Sweetser proposes a semantic link-up to account for this pervasive tendency in the Indo-European languages to borrow concepts and vocabulary from the more accessible physical and social world to refer to the less accessible worlds of reasoning, emotion and conversational structure; what she calls the "MIND-AS-BODY" metaphor. This link-up between the vocabularies of the mind and body is not only rooted in certain psychosomatic reactions (Kurath 1921), though, as Sweetser argues, in some examples psychosomatic explanations may be enough to

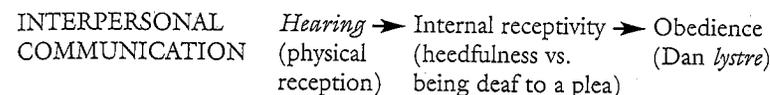
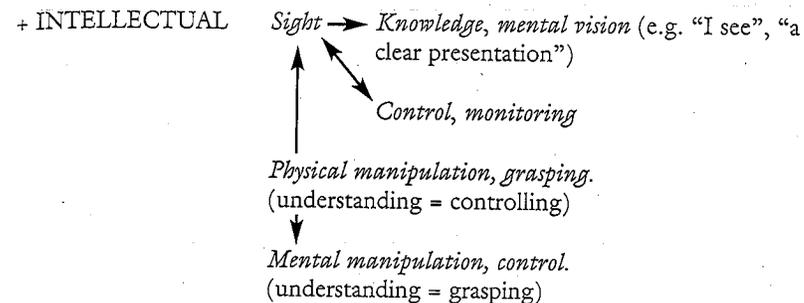
account for some cases: for instance, the fact that it is possible to have *emotional tension* or to *feel low* may be linked to the muscular states of tension and limpness that go with these mental states. However, other expressions such as *bitter anger* or *sweet revenge* cannot be linked to any direct physical taste response of bitterness or sweetness; they should be regarded as metaphorical.

This MIND-AS-BODY metaphor is motivated by correspondences between our external experience and our internal emotional and cognitive states. These correspondences are not isolated; they are parts of a larger system. This metaphor involves our conceptualising one whole area of experience (i.e. mind) in terms of another (i.e. body), and therefore, Sweetser suggests that MIND-AS-BODY can be considered as what Lakoff and Johnson (1980, 1999) regard as a "conceptual metaphor" (see also Lakoff 1993, 1996).

Another important point is that correspondences between these two domains of experience are unidirectional (Sweetser 1990: 30): from the vocabulary of bodily experience to the vocabulary of psychological states. In the case of 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. Figure 1 summarises the structure of English metaphors of perception (see next page).

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OBJECTIVE



SUBJECTIVE + EMOTIONAL FEEL → EMOTION

TASTE → PERSONAL PREFERENCE

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Figure 1: The structure of perception metaphors (After Sweetser 1990: 38).

Taking Sweetser's work on English perception verbs as the starting point, I will analyse in this paper the different semantic extensions that take place in this semantic field. I will focus on two main points: first, I will show how the metaphorical scope³ of these verbs is even larger than that proposed by Sweetser (see Figure 1) and second, I will provide further support for her claim that these mappings are cross-linguistic. The languages under investigation are two Indo-European languages, English (Germanic) and Spanish (Romance), and one non-Indo-European, Basque.

2. Cross-linguistic correspondences in the MIND-AS-BODY conceptual metaphor

In this section I analyse how the MIND-AS-BODY conceptual metaphor is present in the five perceptual modalities. These metaphorical mappings are only a portion of the group of extended meanings conveyed by perception verbs (see Ibarretxe-Antuñano 1999, for a detailed discussion).

The linguistic material used in this study comes from three different sources: (i) Monolingual and bilingual dictionaries; these examples are followed by an abbreviated reference within brackets. (ii) Corpora of written English, Basque and Spanish: the British National Corpus (BNC)⁴ is the corpus used for English; present-day Basque Reference Corpus (EEBS)⁵ is the corpus used for Basque; reference Corpus for Present-day Spanish (CREA)⁶ is the corpus used for Spanish. These examples are also followed by an abbreviated reference within brackets. (iii) Examples that occur without any bracketed indication of the source have for the most part been constructed by me, occasionally on the basis of an utterance that I have seen or heard used. In addition, some of them have been taken from other linguistic studies, and whenever I can straightforwardly pinpoint the origin of such specially invented examples, I shall do so either in a note or in the accompanying text. I have always consulted native speakers concerning the naturalness of these examples.

I would also like to point out that the main aim of this study is not to show how frequent or salient the meanings presented are in each language, but rather to show that it is possible to infer them. Therefore, I have not included any data on frequencies.

2.1. Vision

Vision is by far the most studied sense of the five. The semantic field of sight has been analysed not only from the point of view of polysemy (Alm-Arvius 1993; Baker 1999; Bauer 1949; García Hernández 1976; Prévot 1935) but also from the language acquisition perspective (C. Johnson 1999; Landau and Gleitman 1985). These studies have shown that verbs of sight can convey a vast number of senses. Ibarretxe-Antuñano (1999: ch. 2) 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 one, can be considered sub-cases of the metaphor MIND-AS-BODY metaphor. Let us analyse them in more detail.

The verbs used for the following analysis are *see* and *look* in English, *ikusi* and *begiratu* in Basque, and *ver* and *mirar* in Spanish.

2.1.1. Intellect and mental activity

In this group the mapping takes place between the domain of physical visual perception and the domain of mental processing.⁷ There are different types of mental processes: "to understand", "to foresee", "to visualise", "to regard", "to imagine", "to revise", and "to meditate". On this basis the following metaphorical sub-mappings may be set up:

UNDERSTANDING IS SEEING in the mapping illustrated in (1), (2) and (3) below:

- (1) *I explained the problem but he could not see it* (COL)
- (2) *Orduan (nik) ez nuen ikusi (berak) zer esan nahi zuen*
then I.ERG neg aux.1SG see he.ERG what say want
aux.COMP.3SG
"I didn't see at the time what he wanted to say" (ELH)
- (3) *Es una manera apresurada de ver las cosas*
is a way hasty of see the things
"It's a very hasty way to see things" (CREA)

Another case in this group is FORESEEING IS SEEING as in (4), (5) and (6).

- (4) *I can see what will happen if you don't help* (COL)
- (5) *Peiori gertatu zaiona aurretik ikusi nuen nik*
peter.DAT happen AUX.REL.ABS before.ABL see aux.1SG I.ERG
"I already foresaw what has happened to Peter"
- (6) *Estoy viendo que mi hermano llega sin avisar*
am seeing COMP my brother arrives without notify
"I can see he is going to come without letting us know" (RAE)

In these three examples we foresee what is going to happen before it actually takes place. In the case of Basque, it is necessary to add the word *aurretik* "before" in order to infer this meaning. Otherwise the verb takes the physical meaning "to witness".⁸

IMAGINING IS SEEING is another example of this group. In this case, we visualise a counterfactual situation which has already taken place or might take place in the future.

(7) *Do all your people see themselves as having a selling role* (BNC)

(8) *Geure buruak galdurik ikusi genituen*
our head.ABS.PL lost see.PER aux.1PL
“We saw ourselves lost” (IS)

(9) *Esta chica ya se ve estrella de cine*
this girl already she.REFL sees star of cinema
“This girl already imagines herself a film star” (LAR)

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 (10), (11) and (12).

(10) *She thinks it is soft of him to see them as belonging to a universal latent hostility* (BNC)

(11) *Nola ikusten duzu gure arazoa?*
how see.HAB aux.2SG our problem.ABS
“How do you see our problem?” (ELH)

(13) *No le veo nada malo*
neg he.DAT see.1.SG nothing bad
“I can't see anything wrong with it” (OSD)

Finally, in the last mapping in this group, vision is understood as the faculty that enables one to revise or examine a situation or study a case, that is, STUDYING/EXAMINING IS SEEING.

(14) *I have to see how I fix it* (OSD)

(15) *Zuk ekarritako dokumentuak ikusten ari naiz*
you.ERG bring.REL document.ABS.PL see.HAB be.busy aux.1SG
“I'm revising the documents you brought”

(16) *No vimos ese tema en clase*
neg saw.1PL that topic in class
“We didn't look at that topic in class” (OSD)

2.1.2. Reliability and Assurance

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” as in (17), (18) and (19), “to make sure” as in (20), and (21), and “to take care” as in (22), (23) and (24).

In these three examples, the mapping takes place between the activity of seeing something and the activity of discovering something, i.e. FINDING OUT IS SEEING.

(17) *Please see who's knocking* (AM)

(18) *Mendiaren gailurrera iritsita bebean zegoen herri hura ikusi zuen*
mountain.GEN top.ALL arrive.PART down.LOC was.REL town
that.ABS see aux.3SG
“When he reached the top of the mountain he discovered the town that was down there” (ELH)

(19) *Mira a ver quién llama a la puerta*
look to see who calls to the door
“See who's at the door”

Another mapping included in this group is MAKING SURE IS SEEING.

(20) *See that it gets done right away* (AM)

(21) *Mira que los niños hagan los deberes*
look.IMP COMP the children do.SUBJ.3PL the homeworks
“See that the children do their homework”

Finally the mapping TAKING CARE OF SOMETHING IS SEEING SOMETHING is also included in this group.

(22) *He looked⁹ after his younger brother* (AM)

(23) *Begiraiezadazu umea kanpoan nagoen bitartean*
look aux.IMP.1SG.2SG child.ABS outside.LOC am.COMP while
“Look after the child while I'm away” (IS)

(24) *Mira por tí misma, los demás que se las arreglen*
look.IMP for you.DAT REFL the others that they.REFL the
fix.SUBJ.3PL
“Just take care of yourself, and let the others sort out their own problems” (OSD)

Although in these examples "to take care" refers to the protection of human beings (brothers, children, oneself...) from some potential external agent, this meaning also applies to other situations where no human being is implied such as those depicted in the following Basque examples:

- (25) *Harresi handiak begiratzen zuen Txina mongoliarren erasoetik*
 wall big.ERG see.HAB aux.2SG china.ABS mongol.POSS
 attach.PL.ABL
 "The Great Wall protected China from Mongol attacks"
 (MMO)

- (26) *Euskara begiratzeko eta zaintzeko erakunde bat*
 basque.ABS see.NOM.ADN and take.care.NOM.ADN organisation
 one
 "An institution to preserve and protect Basque" (MM)

2.1.3. Miscellany: "to witness"

In the metaphor WITNESSING IS SEEING 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.

- (27) *He has seen much unhappiness in this life*¹⁰ (COL)

- (28) *Vieron confirmadas sus sospechas*
 saw.3.PL confirmed.PL their suspicions
 "They saw their suspicions confirmed" (OSD)

Apart from the cross-linguistic extended meanings just mentioned, each language has developed further meanings. For instance, in Basque, there is the mapping SUFFERING IS SEEING with the verb *ikus* "to see"¹¹ as in (29).

- (29) *Hark istilu gorriak ikusi zituen*
 he.ERG difficulty red.ABS.PL see aux.3SG
 "He suffered a great deal" (ELH)

It can be argued that the meaning "to suffer" in (29) is realized by the direct object *istilu gorriak*, not only in the word *istiluak* "difficulties", but also in the word *gorri* "red", which metaphorically means "terrible, awful, extreme".¹² However, *ikusita* in (30) conveys this meaning without the need to rely on any other element in the sentence.

- (30) *Neureak ikusita nago*
 mine.ABS.PL see.PART am
 "I've suffered a lot" (AR)

Two other mappings are possible in Basque, OBEYING IS SEEING as in (31), and REFRAINING IS SEEING as in (32).

- (31) *Agindua erraz bazen ere, ez zuen begiratu, hautsi egin zuen*
 command.ABS easy.INSTR if.aux.3SG also neg aux.3SG see.PER
 break.PER make.PER aux.3SG
 "Even though the commandment was simple, she did not keep it, she broke it" (MMO)

- (32) *Inori gaitz egiterik begiratzen zen*
 anyone.DAT evil make.NOM.PART see.HAB aux.3SG
 "He refrained from doing evil to anyone" (MMO)

Finally, in Spanish we can find another metaphorical mapping in BEING INVOLVED OR RELATED IS HAVING TO SEE as in (33).¹³

- (33) *Y Schneider, ¿qué tenía que ver con la obra?*
 and scheider what had.3SG COMP see with the play
 "And what did Scheider have to do with the play?" (CREA)

2.2. Hearing

Hearing is said to be the sense of linguistic communication and in fact in all the meanings, both concrete and abstract, it seems to be so. There are always two elements involved in this sense: the hearer and the speaker. The latter could be a person or an object, known or unknown, but the fact is that it is always present.

The verbs analysed in this sense are *hear* and *listen* in English, *entzun* and *aditu* in Basque, and *oír* and *escuchar* in Spanish.

The first metaphorical mapping in this sense is PAYING ATTENTION IS HEARING¹⁴ as in (34), (35), and (36).

- (34) *Do not listen to the tempting voices* (BNC)

- (35) *Aitari entzun, eta Haren erakutsiak ikasten dituená,*
Niregana dator
 father.DAT listen and he.POSS show.PART.ABS.PL learn.HAB
 aux.3sg.REL.ABS I.ALL come.3SG
 "Listen to our Lord, and the one who learns what he teaches,
 could come to me" (EEBS)

(36) *Escucha lo que otros le dicen sobre las formas de reaccionar que tiene su piel*

listen.IMP it.ACC that others he.DAT say.3PL about the ways of react that has.3SG his skin

"Listen to what others say about the way his skin may react"

(CREA)

In these three examples 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 says him to. This is true in sentences (37), (38), and (39).

(37) *He said: "They hadn't organised themselves and didn't listen to advice and instruction"* (BNC)

(38) *Seme batak ez eukan entzunik*

son one.ERG neg had listen.PART

"One of the sons was not obedient" (AR)

(39) *Te he dicho que escuches a tu madre*

you.DAT have said COMP listen to your mother

"I told you to listen to your mother"

The condition of hearing as an interpersonal relation is said to have caused the semantic shifts that the sense has undergone. In a way it makes sense and in the case of the shift, hear → heed → obey, it is true. The verbs of hearing in themselves do not mean "obey"¹⁵ or "pay attention". It is in the context of a conversation, hence interpersonal relation, that they acquire that meaning. Expressions such as Spanish *Hacerse el sordo*, Basque *Gor egin*, French *Faire le sourd* "pretend not to hear", or English *Be deaf to a plea*, Spanish *Hacer oídos sordos* clearly show this interpersonal quality of the sense of hearing and also its metaphorical connections.

Another extended meaning of these verbs is "to be told", "to be informed", which can be inferentially understood as "to know". When we use hearing verbs in these situations 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 hand¹⁶ – although the informant does not necessarily have to be mentioned. This type of meaning has interesting implications for the study of evidentials. Evidentials are generally said to participate in the expression of the speaker's attitude towards the situation his / her utterance describes. Sense perception verbs are a common cross-linguistic source for evidentials (see Willett 1988). Hearing verbs provide two kinds of evidence: "attached", when the source

of the speaker's information is of a primary source; and "indirect reported", when the source is of secondary origin, i.e. hearsay. This extended meaning will fit into the latter type.¹⁷ Examples (40), (41), and (42) illustrate this metaphor that we could call BEING TOLD/KNOWING IS HEARING.

(40) *I heard you are in catering these days* (BNC)

(41) *Aldaketa hau onerako izan dela entzun dut*

change this.ABS good.ALL.ADN be.PER aux.3SG.COMP hear.PER

aux.1SG

"I heard that this change has been for the best" (EEBS)

(42) *Me preocupé cuando oí que habían muerto*

I.REFL worried.1SG when heard.1SG that had.3PL died

"I was worried when I heard that they had died" (CREA)

Although the sense of vision is usually related to mental activities such as "understanding" (see Section 1.1.1), this mapping is also possible with hearing verbs as in (43), (44), and (45), where the metaphor at work is UNDERSTANDING IS HEARING.

(43) *If I have heard well, you want to say that there is no solution*

(44) *Ondo entzun badizut zuk esan nahi duzu irtenbiderik ez dagoela*

well hear.PER if.aux.2SG.1PL you.ERG say.PER want aux.2SG

solution.PART neg is.COMP

"If I have heard well, you want to say that there is no solution"

(45) *Si le he oído bien usted quiere decir que no hay solución*

if you.DAT have hear.PAR well you want say COMP neg exists

solution

"If I have heard well, you want to say that there is no solution"

Notice that the presence of the adverb *well* (*ondo*, *bien*) is required in order for this meaning to be inferred. In Basque, however, this requirement is not needed in cases when we use the verb *aditu* as in (46), where this verb means "understand".

(46) *Aditzen dut zer esan nahi zuen*

hear.HAB aux.1SG what say.PER want aux.3SG

"I understand what he means" (MMO)

Another two metaphorical mappings are possible in Basque if the hearing verb is nominalised. One of them is BEING TRAINED IN SOMETHING IS BEING

HEARD as in (47), or even BEING AN EXPERT IS BEING HEARD as in (48). The other one is HAVING AN AGREEMENT IS HAVING A HEARING as in (49).

(47) *Izketan aditua da*

he.ABS talk.LOC hear.PER.ABS is
"He is a learned speaker" (AR)

(48) *Nijinsky, inoizko dantzarik hoberenak, adituek diotenez, arrakasta zorabiagarri bihurtzen zituen bere saioak*

nijinsky ever.ADN dance.PART best.ABS.PL hear.ERG.PL say.3PL.INSTR
success dizzy convert.HAB aux.3SG he.POSS session.ABS.PL
"According to the experts, Nijinsky could turn his best dances into incredible successes" (EBS)

(49) *Aditu bat dute elkarren artean*

hear one aux.3PL RECIP.POSS between.LOC
"They've got an agreement between themselves" (MMO)

2.3. Touch

The sense of touch has always been related to the field of emotions. Expressions such as *I'm deeply touched* or *Touching words* are widely used in English. Already in 1921 Hans Kurath classified sense perception in respect to emotions and stated how "the kinaesthetic, the visceral, and the tactual perceptions have a relatively stronger tone than those of hearing and especially of sight" (1921: 39). However, if we review the different meanings that tactile verbs can convey, it will be seen that these verbs not only map onto the field of emotions but also onto other experiential domains. Metaphors like REACHING IS TOUCHING, CORRESPONDING IS TOUCHING, and BEING NEAR IS TOUCHING are widely found cross-linguistically (Ibarretxe-Antuñano 2000). However, there are only four subcases of the MIND-AS-BODY metaphor: AFFECTING IS TOUCHING, DEALING WITH IS TOUCHING, CONSIDERING IS TOUCHING, and TEMPTING IS TOUCHING.

The verbs used in this case are *touch*¹⁸ in English, *ukitu*¹⁹ in Basque, and *tocar* in Spanish.

The first mapping that we explore is AFFECTING IS TOUCHING²⁰ as illustrated in the following examples:

(50) *An appeal that touches us deeply* (AM)

(51) *Edertasunak ukitu du azkenean Iñakiren bihotz gogorra*
beauty.ERG touch.PAR aux.3SG end.LOC ñaki.POSS heart
strong.ABS
"In the end, beauty changed Iñaki's hard feelings" (IS)

(52) *Juan le tocó el corazón a María*

john she.DAT touched the heart to mary
"John touched Mary's heart" (CSE)

In these examples what is affected is the emotional side of the person in question. In (50) the appeal caused us to react emotionally; we could not remain with the same feelings or ideas that we had before hearing it. In (51) Iñaki's feelings are changed too, as a result of the beauty that he saw in a person or thing. Finally in (52) John also affected, i.e. changed, Mary's feelings.²¹ Although the emotional perspective of touch has been seen as an independent metaphorical mapping (Sweetser 1990: 37/43), I would like to include it under the wider domain "to affect".²² There are other examples in these languages where we have the same "contact-to-effect" chain and which can also be included under this label. For instance, in Basque there is the expression *Ardoa ukitu*, lit. "touch wine", which means that the wine is spoiled and can no longer be drunk. In Spanish, when a person wins the lottery it is very common to say *Me tocó la lotería*, lit. "the lottery touched me", in which case the lottery is the agent that provokes the change in me, that is to say I became rich.

Another metaphorical mapping in the sense of touch is DEALING WITH SOMETHING IS TOUCHING as in (53), (54), and (55).

(53) *I wouldn't touch that business* (AM)

(54) *Lan hori ukitu dugu*

work that touch.PER aux.1PL
"We dealt with that work" (MUJ)

(55) *No tocó para nada ese asunto*

neg touched.3SG for nothing that business
"He didn't deal with that business at all" (MM)

This meaning can be modified by the inclusion of an adverbial expression such as *luzaz* "for a long time", *en muchas ocasiones* "on many occasions", in which case the meaning would be "to know by experience" as in (56) and (57) below.

- (56) *Unibertsitate-gaia luzaz ukitu dut*
 university-topic.ABS long.INST touch.PER AUX.LSG
 "I have dealt with university matters for a long time" (IS)
- (57) *En muchas ocasiones hemos tocado el tema de una posible intervención de las fuerzas armadas*
 on many occasions have.1PL touched the topic of a possible intervention of the forces armed
 "We have dealt with a possible intervention by the armed forces on many occasions" (CREA)

Tocar could also mean "to deal with superficially", if a word like *barely* or the preposition *on* in English is inserted as in (58) and (59)²³ respectively.

- (58) *He barely touched on the incident in his speech* (AMGD)
- (59) *The artists use personal knowledge to touch on the fragility and complexity of human experience* (BNC)

In Basque the verb *haztatu*,²⁴ "to touch", may display the metaphor CONSIDERING IS TOUCHING as in (60).

- (60) *Hazta ditzagun arrazoiak*
 touch aux.SUBJ.LSG reason.ABS.PL
 "Let's consider the reasons" (ELH)

Finally, the mapping TEMPTING IS TOUCHING is also possible in Spanish using the verb *tentar*²⁵ as in (61).

- (61) *El diablo tentó a Jesús en el desierto*
 the devil tempted to Jesus in the desert
 "The devil tempted Jesus in the desert" (RAE)

The verb *tentar* is more widely used in this sense of "to tempt" rather than in the physical touch sense, however, this physical meaning is kept in expressions such as *ir a tientas* "to feel one's way", which is derived from this verb.

2.4. Smell

The sense of smell is generally considered a weaker source domain for metaphorical meanings in comparison with the other senses (Caplan 1973; Sweetser 1990; Viberg 1984). Although the sense of smell in human beings is not as developed as other senses such as vision, Ibarretxe-Antuñano (1999c) has

shown that this sense does have several extended meanings, both physical ("to trail something") and metaphorical. In this section I concentrate on the latter. The verbs used in this analysis are *smell* and *sniff* in English, *usaindu*, *usnatu*²⁶ and *usmatu* in Basque, and *oler*, *olfatear* and *husear* in Spanish.

The first metaphorical meaning in the sense of smell is SUSPECTING IS SMELLING.

- (62) *Things... wouldn't always get past the sharp-eyed QC. If a case smelt, he would smell it* (OED-1973)

- (63) *Sailburuaren kontuak zuzenak ez zirela erraz usain zitekeen*
 minister.GEN account.ABS.PL right.ABS.PL neg were.3PL.COMP
 easily smell could.3SG
 "It was easy to suspect that the minister's accounts were not clear"

- (64) *Claro que yo me huelo que la culpa de todo la tiene el sinvergüenza del marido*
 clear that I I.REFL smell.LSG that the fault of everything she.ACC has.3SG the shameless of.the husband
 "Of course, I suspect that her shameless husband is the one to blame for everything" (CREA)

In (62) *smell* is used in two different ways. In the first, it is used as the indication of bad characteristics. It can easily be replaced by the verb *stink*. The second *smell* means "to suspect". (62) could be paraphrased as "if there was something wrong in the case, the QC would suspect it". It has been suggested that the second *smell* could be paraphrased as "to know" instead of "to suspect". Although it is true that there is a great deal of variability in the interpretation of this example, it is important to take into account that the information that we get when we use our sense of smell is not as accurate as when we use another sense such as vision (see Ibarretxe-Antuñano 1999a: 153-164). In (62) the QC did not know for sure that there was something wrong with the case and that is why the verb *smell* is used instead of *see*, in which case the sentence would not offer any doubt in respect of its meaning.

In (63), we suspected that the minister's accounts were not clear, that there was something wrong with them. This verb always carries negative connotations. This is the case in previous examples, and in (65), where this person suspects that the husband is responsible for what has happened.

Another possible metaphorical mapping is GUESSING/SENSING INTUITIVELY IS SMELLING.

(65) *Mary can smell money* (AM)

(66) *Kanturako haren zera ikusiz, mutrikuarra zela usaindu nuen*
song.ALL.ADN he.GEN way.ABS see.PER.INSTR mutriku.POSS
was.3SG.COMP smell.PER aux.1SG

"From his way of singing, I guessed he was from Mutriku"
(HM)

(67) *Se huele los problemas desde lejos*

s/he.REFL smells the problems from far
"She can smell trouble a mile off" (OSD)

The meaning in these sentences is that the people involved can sense, recognise something intuitively. Sentence (65) implies that Mary has a sixth sense that helps her to tell when money is around and where it is. In (66) there are no negative connotations or bad characteristics to be discovered, but only the fact that this person was from a town called Mutriku. His particular way of singing gave certain clues as to where he came from. In (67) what is implied is not that this person suspects that there is going to be trouble, but rather, if there were trouble, she would sense it, she would guess it beforehand.

The metaphor INVESTIGATING IS SNIFFING AROUND is also possible in the domain of smell.

(68) *The police have been sniffing around here again* (RCD)

(69) *Bere gauzetan usnaka ibili ondoren, bera hiltzailea izan zitekeela usaindu nuen*

he.POSS things.LOC smelling be.PER after he.ABS murderer.ABS
be could.3SG.COMP smell.PER aux.1SG

"After I sniffed around, I suspected he could be the murderer"

(70) *Bastará con que le siga discretamente y con que husmee un poco por ahí*

suffice with that he.ACC follow.2SG unnoticeably and with that
smell.2SG a little for there

"It will be enough if you follow him and sniff around a little bit" (CREA)

In these examples, smells are metaphorically understood as traces, as information; and the action of smelling is conceptualised as the action of looking for or investigating those pieces of information.

Apart from these cross-linguistic mappings, English and Basque have developed other meanings unique to these languages.

In English the verb *sniff* also shows the metaphor SHOWING CONTEMPT IS SNIFFING as in example (71) below.

(71) *The critics sniffed at the adaptation of the novel to film* (AM)

Basque has three more mappings, CORRUPTING IS SMELLING, PROPHECYING IS SMELLING, AND NOT TO GET WIND OF SOMETHING IS NOT TO SMELL SOMETHING.

Smell verbs are used in Basque to indicate that the wine is rancid, or that the milk has gone off as in (72). As a metaphorical extension of this meaning it is also possible to use these verbs to mean "to corrupt" as in (73).

(72) *Esnea usaindu da*

milk.ABS smell.PER aux.3SG

"The milk has gone off" (HM)

(73) *Hangoen pentsamoldeak bizimoduz usaindu zuen*

there.ADN.GEN ideology.ERG life.INSTR smell.PER aux.3SG

"The neighbours' way of thinking corrupted their way of living" (HM)

Another metaphorical mapping in Basque is NOT TO GET WIND OF SOMETHING IS NOT TO EVEN SMELL,²⁷ as in (74).

(74) *Benetako egoeraren usainik ere ez zuen hartu*

true.ADN situation.POSS smell.PART also neg aux.3SG take.PER

"He didn't even get wind of the real situation" (MMO)

This type of metaphorical mapping does not only apply to a knowledge domain. It could be used in other contexts too. The main focus of this type of construction lies in the total lack of awareness of whatever the object of "smelling" is. In other words, in (74) the object is the "situation", but in (75) below, it is the "funding".

(75) *Gipuzkoa eta Arabako AEK urte erdiko subentziora jaso ezinean, eta Bizkaikoa urte osokoa usaindu ere gabe*

gipuzkoa and alava.ADN AEK year half.ADN funding.ABS receive

impossibility.LOC and biscay.ADN.ABS year whole.ADN.ABS smell
also without

"AEK in Guipuzcoa and Alava could not receive half a year's funding, but the one in Biscay did not get any of the whole year's funding at all" (EEBS)

In (75), the meaning of the smell verb does not only imply that this organisation, AEK in the province of Biscay, received some money, but that they did not receive any funding at all. It is important to point out that the meaning does not imply that the subject -AEK in Biscay-, did not want the funding, but that that they did not even have the chance to participate or to partake of it and as a consequence they were left out.

Finally, the metaphorical mapping PROPHECYING IS SMELLING is also found in Basque smell verbs as in (76).

(76) [...] *alaba onek [...] etorkizun illunpeak urratu eta erdi-ikusi edo usnatu zuela esan genezake*

daughter this.ERG future obscurity.ABS.PL break.PER and half-see.PER or smell.PER aux.3SG.COMP say.PER could.1PL

"We could say that this daughter could explore and foresee the hidden future" (EEBS)

2.5. Taste

The physical sense of taste is generally linked to personal likes and dislikes²⁹ in the mental world. Perhaps the reason why this is so lies in the fact that the sense of taste is most closely associated with fine discrimination. According to Buck (1949: 1031), among Hindus there are six main varieties of taste with sixty-three possible combinations and among the Greeks six, including the four fundamental ones: "sweet", "bitter", "acid" and "salt". This makes the sense of taste very accurate from a descriptive point of view as it allows us to express ourselves very precisely when we want to describe a taste.

The verbs used in this sense are *taste* and *savour* in English, *dastatu* in Basque, and *gustar*, *saber* and *saborear* in Spanish.

One of the main metaphorical mappings that taste verbs have cross-linguistically EXPERIENCING SOMETHING IS TASTING as in (77), (78), and (79).

(77) *He has tasted the frustration of defeat* (AMGD)

(78) *Ilabete bat eta erdiz preso negia jastatu zuen*
month one and half.INSTR jail.ABS taste.PER aux.3SG
"He tasted the life in prison for a month and a half" (LM)

(79) *(Ellos) gustaron las mieles del triunfo*
they tasted the honeys-of-the victory
"They tasted the sweet taste of victory" (OSD)

Judging from the English translation provided for (79), it could be argued that the mapping could also be ENJOYING IS TASTING. However, this interpretation is not possible for the example in Spanish (80). As we shall see in the examples below, the verb *gustar* in sentences like (87) below does mean "enjoy, like", but in (79), it means experience something, in this case a victory. The verb *gustaron* can be substituted by the verb *probaron* (*probar* "taste, try"), which does not imply enjoyment as in (80) below.

(80) *(Ellos) Probaron las mieles del triunfo*
they tried the honeys-of-the victory
"They tasted the sweet taste of victory"

Another metaphorical meaning in taste verbs is "to enjoy".

(81) *I savour the sweet taste of revenge*

According to the OED, taste used to mean "enjoy, take pleasure" as in (84). This use, however, is archaic nowadays.

(82) *If I wondered at Johnson not tasting the works of Mason and Gray, still more have I wondered at their not tasting his works* (OED-1791)

(83) *Munduko plazerrak dastatu zituen*
world.ADN pleasure.ABS.PL taste.PER aux.3SG
"He tasted the pleasures of this world" (ELH)

(84) *Garaipena dastatzen hasiak zirelarik, partidua eten egin zuten*
victory.ABS taste.HAB beginning.ABS.PL were.3PL-when match.ABS
break make.PER aux.3PL
"When they started to savour the taste of victory, they cancelled the match" (ELH)

Although these two examples of taste mean "enjoy", their connotations are different. In (83) the connection with the actual physical sense of taste is more dominant. The meaning of "enjoy" is made explicit by the word *plazerrak* "pleasure (pl.)", but without it (83) might have meant "experience" or "try". On the other hand (84) is not so close to the physical meaning. It is true that a victory is something positive, especially if you are the victor, however, if the direct object is changed, as in (85), the meaning changes from taking pleasure in winning to taking pleasure in the defeat of the opposing side.

(85) *They started to taste the other team's defeat*

To lose a game cannot be considered as something positive and therefore the object itself does not imply this positiveness as in (83), but it does imply enjoyment on the part of the subject. However in (86) the object overrides the positive implicature.

(86) *The Romans tasted defeat at the hands of a Barbarian army*

(87) *Le gusta jugar al fútbol*
he.DAT likes play to-the football
"He likes playing football"

Although ENJOYING IS TASTING exists in Spanish as in (87), the opposite feeling is also possible:

(88) *Me supo mal el decirselo*
I.DAT tasted badly the tell-he.DAT-it.ACC
"I didn't like to tell him so"

This sentence can be also said with *gustar* as in (89).

(89) *No me gustó el decirselo*
neg I.DAT liked the tell-he.DAT-it.ACC
"I didn't like to tell him"

In these examples, the feeling that is produced is not good or enjoyable, but just the opposite, so the mapping should be DISLIKING IS TASTING. Instead of having two differentiated mappings, I propose a more general metaphor like PRODUCING A FEELING IS TASTING. This metaphor could be considered the superordinate and ENJOYING/DISLIKING IS TASTING the hyponyms.

It is also worth noting that in these two examples, when the feeling produced is of a negative quality, the use of a negative³¹ form is required. This seems to indicate that these verbs, when used without any qualifying adjectives or adverbs, imply a positive meaning.

In addition to these cross-linguistic mappings, the sense of taste in Spanish has more meanings. This sense of the Spanish verb is quite unique as compared to other Romance languages where the cognates of the Spanish verb *saber* have kept only one of two meanings from the Latin *sapere* "to taste", "to know": in Spanish both meanings are still in use. Therefore, it is possible to establish a further metaphor KNOWING IS TASTING as illustrated in (90).

(90) *María sabe la lección*
mary knows the lesson
"Mary knows the lesson"

3. Conclusions

MIND-AS-BODY is a conceptual metaphor whereby the mind is conceptualised in bodily terms. That is to say, 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.

In this paper, I focused on the network of metaphorical mappings that take place in perception as special sub-case of the MIND-AS-BODY metaphor. Based on Sweetser's (1990) work on English perception verbs, I analysed the systematic mappings between the vocabulary of physical perception and the vocabulary of internal self and internal sensations in three typologically different languages: English, Basque and Spanish.

I showed that the metaphorical scope of these verbs is broader than that originally proposed by Sweetser. For instance, hearing is not only related to heeding and obeying, but also to understanding and knowing; smell is not only connected to dislikeable feelings but also to suspecting and investigating, and so on. The fact that many of these mappings are found in three different languages supports Sweetser's claim that these extensions are a cross-linguistic phenomenon. The network of metaphorical mappings in perception verbs and its distribution in English, Basque and Spanish are summarised in Table 1.

METAPHORS IN THE PERCEPTUAL DOMAIN		LANGUAGES		
		English	Basque	Spanish
VISION	Understanding is seeing	+	+	+
	Foreseeing is seeing	+	+	+
	Imagining is seeing	+	+	+
	Considering is seeing	+	+	+
	Studying / Examining is seeing	+	+	+
	Finding out is seeing	+	+	+
	Making sure is seeing	+	+	+
	Taking care is seeing / looking after	+	+	+
	Witnessing is seeing	+	+	+
	Suffering is seeing		+	
	Obeying is seeing		+	
	Refraining is seeing		+	
	Being involved is having to see			+
	HEARING	Paying attention is hearing	+	+
Obeying is hearing		+	+	+
Being told / knowing is hearing		+	+	+
Understanding is hearing		+	+	+
Being trained is being heard		+	+	+
Having an agreement is having a hearing			+	
TOUCH	Affecting is touching	+	+	+
	Dealing with is touching	+	+	+
	Considering is touching		+	
	Persuading is touching			+
SMELL	Suspecting is smelling	+	+	+
	Sensing/guessing is smelling	+	+	+
	Investigating is smelling/sniffing around	+	+	+
	Showing contempt is sniffing	+		
	Corrupting is smelling		+	
	Not to get wind of something is not to smell		+	
	Prophesying is smelling		+	
TASTE	Experiencing something is tasting	+	+	+
	Producing a feeling is tasting (enjoying/disliking)	+	(+)	+
	Knowing is tasting			+
				+

Table 1: MIND-AS-BODY conceptual metaphor in English, Basque and Spanish perception verbs.

Notes

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1. An exception is Kurath, who attributes this diachronic development of emotion words to the psychosomatic nature of emotions.

2. By "motivated" Sweetser understands "an account which appeals to something beyond the linguist's intuition that these senses are related, or that these two senses are more closely related than either is to a third sense" (1990, p. 3).

3. The metaphorical scope is "the range of the application of particular source domains to particular target domains" (Kövecses 1995, p. 316).

4. The right to use the BNC is granted by Oxford University Press to researchers working on the Framenet project, International Computer Science Institute and University of California at Berkeley.

5. "Egungo Euskararen Bilketa-lan Sistematikoa".

6. "Corpus de Referencia del Español Actual".

7. Traditionally in Cognitive Linguistics, these mappings are grouped under the label KNOWING IS SEEING (Sweetser 1990; Grady 1997a,b, 1998, 1999; Lakoff and Johnson 1999). However, I think it is more appropriate to name these mappings separately for two main reasons: (i) they refer to different mental activities, that is, it is not

the same "to imagine" as "to understand"; (ii) "knowing" refers to state whereas "understanding", "imagining", and so on are processes.

8. According to Ibarretxe-Antuñano (1999b) cases like this one are the result of "Graduable or Compositional Polysemy", i.e. the meaning of a lexical item is the result of the interaction between the semantic content of the lexical item itself and that of its different co-occurring elements in different degrees of compositionality.

9. In some Southern English dialects, saw can be used in this example as in *He saw to his younger brother* (Cann p.c.).

10. This example can have another interpretation as well. The subject can be a "passive witness" that sees all this unhappiness as an observer. On the other hand, the subject can be an "active witness" who has experienced this unhappiness in his own flesh (See (47) and (48) below).

11. This meaning is somehow similar to (40) discussed above. In this case, as in one of the interpretations in English, the subject is not only a witness of the suffering, but he experiences it in his own flesh. This is what I have previously called "active witness".

12. See Perurena (1992) and Frank and Susperregi (1999) for more information about the Basque colour system.

13. In Basque, it is also possible to have sentences like (1), but the meaning is "to be related" rather than "to be involved" as in Spanish.

(1) *Honek ez du horrekin zer ikusirik*
this.ERG neg aux.3sg that.COM what
see.PART
"This has nothing to do with that" (IS)

14. A development of this meaning is the special use of these verbs in the sense of "to attend a lecture, a sermon, a play, a musical performance..." In these cases the hearer is a member of an audience. It is very interesting to see that in Basque the meaning "to hear mass" is lexicalised with a vision verb *ikusi* "to see" instead. The use of *ikusi* "see" in this context might be an instantiation of the correspondence between seeing and witnessing (passively).

15. Except Danish *lystre* "obey".

16. In fact, this is extremely important in court cases, where *hearsay* evidence is considered to be less reliable than a *eyewitness* testimony (Dundes, 1972: 12; Danesi, 1990: 222).

17. For more information on evidentiality, see Chafe and Nichols (1986).

18. The verb *feel* is only studied in reference to the sense of touch, not as a general verb for emotion (cf. Spanish *sentir* "feel").

19. *Ukitu* is the verb used in Standard Basque. In some of the examples discussed in this section, the verb *ikutu* is also used. It is a variant in the Guipuzcoan and Biscayan dialects.

20. According to recent theories in metaphor and metonymy research (Barcelona 2000; Radden 2000), this metaphor could be grounded on the metonymy EFFECT FOR CAUSE, where the effect is the change of state, and the cause the action of touching. This metaphor would be in Radden's terminology a "metonymy-based metaphor" (2000: 93).

21. In this example, we have a further metaphor in the case of *heart*. According to Lakoff and Johnson's (1980) theory, *heart* is not a physical object, but a metaphorical realisation of the image schema of a container, where HEART IS A CONTAINER FOR FEELINGS.

22. This wider mapping also includes cases where "affect" is not understood metaphorically but physically. For example, a sentence like *Don't you dare to touch any of my things!* (ANC) says that this person is telling the other not to move, change any of his things, where his personal belongings play the role of "affected" entity (see Ibarretxe-Antuñano 2000).

23. As in the discussion of the meaning "foresee" in Section 1.1, these are also cases of Graduable or Compositional Polysemy.

24. *Haztatu* is more common in the northern dialects.

25. This meaning is also possible with *tocar* as in (2):

(2) *Le tocó Dios en el corazón*
him.DAT touched god in the heart
"God inspired his heart" (RAE)

26. This verb is more widely used in the Northern dialects.

27. This meaning is only possible in negative constructions with the emphatic *ere* "also", which is equivalent to English *not even*.

28. Lit. she "smelled, half-saw and broke into".

29. This relation between taste and likes/dislikes is very common cross-linguistically, but this meaning seems to be encoded only by taste nouns in English, Basque and Spanish (see Ibarretxe-Antuñano 1999a, for analysis).

30. *Jastatu* is a dialectal variation of *dastatu*.

31. This is also possible in Basque.

For example,
(3) *Joni futbola ez zaio gustatzen*
john.DAT football.ABS neg aux.3sg like.HAB
"John doesn't like football"

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