TRANSITIVITY OF SPANISH PERCEPTION VERBS: A GRADUAL CATEGORY?

Renata Enghels Ghent University

ABSTRACT. This article examines to what extent perception verbs occurring in a syntactically transitive scheme are also semantically transitive. Indeed, since the perception process represents a mental rather than a physical contact between the perceiver/subject and the stimulus/object, it should be distinguished from the prototypical transfer of energy. It is shown that the semantic and conceptual differences between the perception modalities influence on the linguistic behaviour of Spanish perception verbs. In this perspective, the verbs *ver* (*to see*), *oir* (*to hear*), *mirar* (*to look at*) and *escuchar* (*to listen to*) are ranged on a scale of transitivity. The validity of the elaborated hierarchy of transitivity is verified by means of empirical data. Based on a large corpus of infinitive constructions, it will be examined to what extent the position of a perception verb on the scale of transitivity correlates with the preferred case markings of its stimulus/object. A specific morphosyntactic phenomenon is studied, namely the special marking of the DO by the prepositional accusative.

Keywords. transitivity, perception verbs, case marking, prepositional accusative, infinitive

RESUMEN. Este artículo examina en qué medida los verbos de percepción que adoptan el esquema sintáctico transitivo se definen al mismo tiempo como semánticamente transitivos. De hecho, como los procesos de percepción establecen un contacto más bien mental en vez de físico entre el perceptor/sujeto y el estímulo/objeto, se distinguen de la transferencia de energía prototípica. El análisis muestra que las diferencias semánticas y conceptuales entre las modalidades de percepción influyen en el comportamiento de los verbos de percepción en español. A ese respecto, los verbos *ver*, *oír*, *mirar* y *escuchar* se posicionan en una escala de transitividad. La validez de esta jerarquía se averigua mediante datos empíricos. Con base en un amplio corpus de construcciones infinitivas, se examina en qué medida se observa una correlación entre la posición de un verbo de percepción en la escala de transitividad y el marcado de caso preferido del estímulo objeto. Se dedica atención particular al fenómeno morfosintáctico del acusativo preposicional.

Palabras clave. transitividad, verbos de percepción, caso, acusativo preposicional, infinitivo

1. Introduction

In most languages, the semantic nature of the perception verbs (PVs) varies according to two parameters, namely the agentivity of the perceiver and the modality of perception. Firstly, as to the degree of agentivity of the perceiver, one can distinguish between involuntary PVs and voluntary PVs: voluntary PVs have a perceiver/subject who actively searches for information whereas the subject of involuntary PVs assimilates the perception process that catches him by surprise. Secondly, the semantics of each verb changes according to the modality of perception: visual, auditory, gustative, tactile or olfactory. This article will concentrate on the PVs of the two main modalities, namely the visual PVs ver (to see) and mirar (to look at) and the auditory PVs oir (to hear) and escuchar (to listen to).

© Renata Enghels. *Borealis: An International Journal of Hispanic Linguistics*, 2012, 2 / 1. pp. 35-56. http://dx.doi.org/10.7557/1.2.1.2522

This is an Open Access Article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Syntactically, the PVs fit into various constructional schemes (e.g. García-Miguel 2005): the ditransitive scheme with a direct object (DO) and an indirect object (IO) (1), the intransitive scheme with (2) or without (3) a locative complement:

- (1) A Emma casi ni le *vemos* el pelo [...]. 'We hardly ever see Emma.' (CREA: Fernández de Castro J., 1987)
- (2) Uno *mira* hacia atrás y no ve sino tierra quemada. 'One looks behind and sees nothing but burned land.' (CREA: El Mundo, 1996)
- (3) [...] el conductor *ve* mal, y el riesgo de accidente se incrementa. 'The driver has a bad sight, and the risk of having an accident increases.' (CREA: El País, 1980)

However, the most frequently adopted scheme is the syntactically transitive one:

(4) A los pocos kilómetros ya no *veía* la luz de los faros de mi padre [...]. 'At a few kilometres I couldn't see the headlights of my father anymore.' (CREA: Llongueras L., 2001)

This article will focus on a specific complement type within the syntactically transitive argument structure, namely the infinitive construction, which semantically represents an act of direct perception of an event:

(5) a. De pronto *veo la cara de Andrés crisparse* y siento que algo insólito está por venírsenos encima.

'Suddenly I see Andrés' face contract and I feel that something unusual is about to happen to us.' (CDE: Ventanas M., 1997)

b. Un día oí a la abuela hablar a mi madre en la cocina.

'One day I heard my grandmother talk to my mother in the kitchen.' (CREA: Adelcoa J.R., 1994)

This construction type has raised a number of interesting questions in the literature, such as which parameters influence the syntactic position of the subordinate participant (e.g. Enghels 2009) and the case marking of the subordinate participant and more particularly, the use of the prepositional accusative. This topic will be further developed in this article. More precisely, it will be examined to what extent the alternation between the accusative (as in 5a, *veo la cara*) and the dative (5b *oi a la abuela*) is influenced by the degree of transitivity of the PV heading the construction.

Transitivity has traditionally been defined from two complementary points of view: a syntactic one and a semantic one. From a purely syntactic perspective, a transitive verb is characterized by the obligatory presence of a DO whereas an intransitive verb has no such object. Semantically, the prototypical transitive event has been defined as a dynamic, concrete event in which an intentionally acting participant acts on a patient who is directly affected as a result of this transfer of energy (cf. Hopper & Thompson 1980: 251; Lakoff 1977: 244; Langacker 1991: 13; Kittilä 2002: 110 among others). Obviously, the syntactic and semantic faces of transitivity have been correlated so that a construction is to be defined as prototypically transitive when it implicates a transfer

¹ The examples cited are extracted from the *Corpus de Referencia del Español Actual* (CREA), the online database of the *Real Academia Española* (http://corpus.rae.es/creanet.html). When this is not the case, it will be explicitly mentioned.

of energy between two participants: the agent/subject functioning as the source of the action and the patient/object undergoing the action.²

However, several authors (such as Cano Aguilar 1981: 22-28; Geisler 1989: 25 and Taylor 1995: 206-216) have indicated that this correlation is not perfect: syntactically transitive verbs do not always express a transfer of energy. For instance, in example (6a), the man does not act as an agent responsible for the transfer of energy; in (6b) the letter is not affected but created by the act of writing:

- (6) a. Aquel hombre *parecía* su marido [...].
 - 'That man looked like her husband.' (CREA: Merino J., 1985)
 - b. Desde Lisboa escribe una carta al novio, [...].
 - 'From Lisbon, he writes a letter to the fiancé.' (CREA: Chamorro V., 1984)

Similarly, the subject of a PV does not cause a physical activity and its DO does not suffer an internal change of state. This is one of the main reasons why PVs have been cited as atypical transitive verbs (García-Miguel 1995: 73; Geisler 1989: 26; Krefeld 1998: 159-161; Taylor 1995: 208-209).

The outline of this paper is as follows. In the first part, it is further argued that transitivity is not a discrete but a gradual category (Section 2). In Section 3, the Spanish PVs ver, oir, mirar and escuchar are ranged on a scale of transitivity. It is shown that the extra-linguistic and conceptual differences between the modalities of perception influence the semantic and the syntactic behaviour of the PVs. More particularly, it is examined to what extent the two main components of the perception event, namely the perceiver and the stimulus, resemble the two participants implied in the prototypical transitive event, the agent and the patient. In Section 4, the validity of the elaborated scale of transitivity is ascertained by means of empirical data. Based on a large corpus, it is examined to what extent the position of a PV on the scale of transitivity influences the case marking, and more particularly the use of the prepositional accusative, of its stimulus/object.

2. The basic transitive event

.

Bibliographic research shows that the definition of the prototypical agent relies on a bunch of semantic traits such as $[\pm \text{ animate}]$, $[\pm \text{ direct cause}]$, $[\pm \text{ responsible}]$, $[\pm \text{ volitional}]$, $[\pm \text{ intentional}]$ and $[\pm \text{ control}]$. First, several authors (Cano Aguilar 1981: 41; Dowty 1991: 572; Lazard 1984: 283; Van Valin 1999 among others) have claimed that the prototypical agent is human, or at least animate. What is more, the prototypical agent is the direct cause of an event because he uses his own energy to bring about the event. The prototypical agent is also responsible for his actions, not only because he is the author of his activities, but also because he has to suffer the consequences of them. An agent is [+ volitional] and [+ intentional] since his intentions cause effective decisions. Formally, this trait can be detected by the presence of certain collocations indicating volition or goal (Cruse 1973: 18;

² Note that this definition is different from the one proposed by Vázquez Rosas (2004: 92-115). This author invokes data based on the frequency of use and the acquisition of language to show that the prototypical transitive event rather denotes a psychological causality (e.g. to see, to want) than a physical one (e.g. to kill, to break). However, following Kleiber (1990), we define the prototype as the mental image of the most representative example of a category. Moreover, the etymology of 'transitive' [< latin TRANSITIVUS 'that may pass over' < TRANSIRE 'go or cross over'] reveals that the idea of transfer of physical energy is at the very centre of the notion of transitivity. Thus, following Hopper & Thompson (1980: 251), Langacker (1987: 231) and more recently Blume (2000: 159) among many others, we will consider prototypical transitive events to be action events.

Holierhoek 1980: 106) such as *voluntariamente* (*voluntarily*), *deliberadamente* (*deliberately*), *intencionalmente* (*intentionally*) or *para* (*to*). In (7a) the subject actually chooses to break the window, whereas in (7b) the event occurs by accident and is thus incompatible with the above-mentioned collocates:

- (7) a. La RDA salvó a los ciudadanos del Oeste y *rompió el muro* voluntariamente.
 - 'The RDA saved the citizens of the West and broke the wall voluntarily.' (http://palabrasencursiva.blogspot.be, 20/03/2013)
 - b. Me contó que mi madre se cayó y se rompió la cadera.
 - 'He told me that my mother had fallen and that she had broken her hip.' (CREA: Enríquez Soriano A., 1997)

Finally, a prototypical agent controls his actions: he can initiate or finish them but he also determines the way a process evolves. Control of the start of an event can be detected by the use of the imperative and the possibility of the predication to function as the complement of verbs expressing order or persuasion such as *convencer* (to convince), obligar (to force), persuadir (to persuade). Control of the completion of an event can be indicated by the verb dejar (to stop). Finally, control of the progress of an event can be detected by adverbs indicating speed or modality, such as rápidamente (quickly) or cuidadosamente (carefully) (Cruse 1973: 18; Gruber 1965; Holierhoek 1980: 106). The application of these tests shows that the subject controls his acts in (8a-b) as opposed to (8c):

- (8) a. Un Zaragoza de circunstancias *obligado a romper* su mala racha en Granada.
 - 'A temporary Zaragoza, forced to break its difficult period in Granada.' (Periódico de Aragón, 3/12/2011)
 - b. Usa un triturador de papel para *romper rápidamente* un documento en pequeños trozos de papel.
 - 'Use a paper shredder in order to quickly tear a document into little pieces of paper.' (http://www.ehowenespanol.com)
 - c. [?]Mi madre se rompió la cadera rápidamente.
 - [?]'Mi mother broke her hip quickly.'

As to the patient, two properties have generated controversy, namely his degree of animateness and definiteness. A first group of linguists (Comrie 1981: 121; Langacker 1991: 323; Primus 1999: 58) defines the patient as preferably inanimate and indefinite, or non-individualized. An individualized – thus definite and animate – patient reduces the degree of transitivity of an event. This thesis has been refuted by a second group of authors (Hopper & Thompson 1980: 291; Lazard 1984: 275), who claim that the second participant in the basic transitive event is preferably animate and definite. However, the prototypical transitive event is not only characterized by the presence of two participants by also by the asymmetrical configuration of these participants. As claimed by Roegiest (2003: 300), the presence of a prototypical patient, occurring in a dependency relationship with respect to the agent, increases the semantic transitivity of the verb. This is why the prototypical patient cannot be characterized as the direct cause of the event but as the participant who absorbs the energy transmitted by the prototypical agent and undergoes an internal change of state. More specifically, the prototypical patient can be defined as the goal of the

transfer of energy (Langacker 1991: 13), the 'chair' of the process (García-Miguel 1995: 66), or the participant affected by the event (Van Valin & Lapolla 1997: 145).

However, as has been noted by García-Miguel (1995: 66), [± affectedness] is a gradual notion. The object created by a transfer of energy for instance, is closer to the prototypical patient than the object which the agent merely establishes physical contact with. An object which an agent establishes mental contact with, as is the case with PVs, falls outside the domain of the affected participants.

3. The transitivity of the perception verbs

Although PVs appear in a wide range of argument schemes (see Section 1), this analysis will be limited to constructions in which the PVs occur in the syntactically transitive scheme. The main goal of this contribution is to examine to what extent the PVs fulfilling the syntactically transitive scheme are also semantically transitive. In a first stage, the four types of PVs are ranged on a scale of transitivity by analysing the semantic and conceptual properties of the perceiver/subject and the stimulus/object.

The semantic transitivity of the PVs will be studied in contexts denoting, as in (9ab), direct perception of a concrete stimulus. Contexts where the PV denotes a cognitive process rather than a perception event (10) or a process of indirect perception (11) will not be taken into account:³

- (9) a. Me doy la vuelta y veo una cara sonriente [...].
 - 'I turn around and I see a smiling face.' (CREA: Llongueras Luís, 2001)
 - b. Le *oigo a él hablar* con Madrid [...].
 - 'I hear him talk with Madrid.' (CREA: Morena J., 1995)
- (10)Sí señor, hablar. Simplemente hablar. En efecto, veo que me ha entendido perfectamente.
 - 'Yes sir, talk. Simply talk. In fact, I see that you have understood me perfectly.' (CREA: Ameztoy B., 2001)
- (11)Cuidado; veo que olvidáis vuestro sombrero.
 - 'Carefully: I see that you forget your hat.' (CREA: Vallejo-Nágera, J., 1995)

3.1 The perceiver: a prototypical agent?

Since the capacity to perceive is one of the five properties of the prototypical agent put forward by Dowty (1991: 572), one could conclude that a perceiving entity is agentive. This thesis has been defended by Langacker (1991: 310):

[...] only the subject's involvement is in any way energetic. As the locus of the mental experience and the source of energy required to sustain it, the subject is clearly the active participant.

Nevertheless, the majority of the linguists (Cruse 1973: 22; García-Miguel 1995: 73; Taylor 1995: 208 among others) maintain that only the perceiver of an act of voluntary perception is agentive, as opposed to the involuntary 'experiencer'. In the following paragraphs we will go through the main characteristics of the prototypical

³ In a process of direct perception, the perceiver maintains a physical relationship with the external stimuli which provide him directly with information concerning his environment. During an act of indirect perception, the perceiver obtains these data through a process of deductive reasoning. For a more detailed analysis of these notions see for instance Holierhoek (1980, chap. 1), Kirsner & Thompson (1976: 206-207) and Enghels (2007b).

agent – described in Section 2 – in order to verify their relevance for the subjects of the four PVs under examination.⁴

First, a perceiver – voluntary or involuntary, visual or auditory – is necessarily animate and preferably human. In (12) on the other hand, the presence of an inanimate subject, radically changes the meaning of the verb; *mirar* does not denote an act of perception, but an orientation of the building:

- (12) Justo Rufino Garay mostró su trabajo 'La casa de Rigoberta *mira al sur*' de Arístides Vargas [...].
 - 'Justo Rufino Garay showed his work 'The house of Rigoberta looks at ('is directed towards') the south' of Arístides Vargas.' (CREA: Prensa, 2002)

Since the perceiver/subject of the voluntary PVs *mirar* and *escuchar* uses his own energy to realize the perception process, he can be defined as the direct cause of that process. This trait seems less applicable to the subject of *ver* and *oir* since it is questionable whether an involuntary perceiver, being overcome by the stimulus, actually invokes his own energy, as in (13a-b). In other contexts (14a-c) the involuntary perceiver does seem to actively invoke his energy to see or to hear:

- (13) a. Desde allí veía el mar.
 - 'From that point he could see the sea.' (CREA: Torres M., 2004)
 - b. A mí me han gustado siempre desde que *oía música* en casa.
 - 'I have always liked them, from the moment I heard music at home.' (CREA: Tiempo, 1990)
- (14) a. Lo que *hacía* Miguel en aquel momento era *ver una película*.
 - 'What Miguel did at that moment was watch a movie.' (Rodríguez Espiñeira 2002: 477)
 - b. Lo que *hacemos* por las noches es *oír la radio*.
 - 'What we do at night is listen to the radio.' (Rodríguez Espiñeira 2002: 477)
 - c. Quizá deberías ver al médico para que te recetase algún antidepresivo.
 - 'Perhaps you should see (visit) the doctor so that he can prescribe you some antidepressant.' (CREA: Buero Vallejo J., 1984)

The examples (14a-b) show that *ver una película* and *oír la radio* can substitute the corresponding structures with *mirar* and *escuchar*; in (14c) *ver* means 'to visit'. These examples show that in certain contexts, involuntary PVs can occur in a context implying volition on behalf of the subject perceiver.⁵

However, the traits $[\pm \text{ volitional}]$ and $[\pm \text{ intentional}]$ have generally been proposed as the ones opposing voluntary and involuntary perception: the subject of *mirar* and *escuchar* denotes a participant who acts voluntarily and intentionally (15a-b) whereas the experience of the subject of *ver* and *oir* is not voluntary (15c-d). However, the process of seeing can also be brought about consciously (see examples 14a-c. *supra*):

(15) a. Levanta la cabeza, limpia un poco el vaho del cristal y *mira para ver* si hay alguien fuera.

⁵ Maldonado (1999: 59) indeed shows that these 'voluntary' uses of *ver* and *oir* are particularly frequent in certain Latin-American dialects.

⁴ Note that this proposal evokes the theory of 'property selection processes' as illustrated by Ibarretxe-Antuñano (1999, 2003, among other references).

- 'He raises his head, cleans the haze from the window and looks to see whether there is someone outside.' (CREA: Mañas J., 1994)
- b. Y la mayoría sólo escucha para que corra el tiempo y les llegue el turno de hablar.
- 'And the majority only listens to let the time go by and to be able to speak.' (CREA: Chamorro E., 1992)
- c. [?]Desde allí *veía* el mar voluntariamente / para... [?] 'From that point he saw the see voluntarily / in order to...'
- d. [?]Oía música en casa intencionalmente / para....
- ? 'I heard music at home intentionally / in order to...'

In the same line of reasoning, Taylor (1995: 208) suggests that the opposition between watching and seeing is determined by the degree of control of the perceiver/subject:

[...] the act of watching is still under the control of the subject. In this respect, watch is a more transitive verb than see (as in John saw Mary).

A perceiver controls his perception if he can begin, direct, stop or continue the perception process. This is certainly the case for the subject of *mirar* and *escuchar*, who directs his attention towards the stimulus (16a), controls the duration and the modality of the observation (16b) and is able to interrupt the process (16c):

- a. "¡Mira cómo se está poniendo de gente!", le dijo una amiga a otra, (16)señalando hacia los pabellones.
 - "Look how it is filling with people!" said one girl to another, pointing towards the pavilion.' (CREA: El País, 2004)
 - b. La esposa de Pérez de Cuéllar escucha atentamente el relato de un chaval de 12 años [...]
 - 'The wife of Pérez de Cuéllar listens carefully to the story of a boy of 12 years old.' (CREA: El Mundo, 1995)
 - c. Arenas dejó de mirar al cielo raso, centrándose de nuevo en la conversación. 'Arenas stopped looking at the sky and focused again on the conversation.' (CREA: Val J., 1981)

The generally accepted idea is indeed that the involuntary perceiver does not control the act of perception. However, there is an important difference between visual and auditory (voluntary) perception. Due to the physiology of the sensory organs, the facility to operate, that is to open, close and direct the eyes, does not apply to the recipients of auditory perception, the ears. Indeed, since the hearing mechanism is constantly open, the perceiver cannot physically control his auditory perception. Thus, the subject of visual perception has more control over the perception event than the subject of auditory perception, who is less agentive (e.g. Enghels 2007b; Ibarretxe-Antuñano 1999; Sweetser 1990; Sekuler & Blake 2006⁵ among others).

Specifically within the domain of the voluntary PVs, the visual perceiver has a physical and mental control over the perception act, whereas there is only mental control for the auditory perceiver: listening to something does not imply a bodily activity whereas looking necessarily involves a physically directing of the eyes. This difference is reflected syntactically in the possibility or not of the verb to be followed by a prepositional complement expressing a 'perceptual movement'. Indeed, the semantics of *mirar* has been defined as 'directing one's view toward', emphasizing

RENATA ENGHELS

the aspect of movement and orientation of the perceiver's visual perception system (Hanegreefs 2008). Therefore *mirar* is easily followed by directional prepositions such as *a, hacia* and *para* (17a) while this type of preposition rarely occurs with *escuchar* (17b):

(17) a. Clara Montes mira hacia el Mediterráneo.

'Clara Montes looks at the Mediterranean Sea.' (CREA: El País, 2004)

b. [?] Escucha hacia la radio.

[?] 'He listens towards the radio.'

These conceptual differences are manifested linguistically in the use of the imperative, which appears to be more natural with voluntary PVs than with involuntary ones, but the opposition between visual PVs and auditory ones does also play a part. This is confirmed by a brief quantitative analysis of CREA, in which by means of illustration, 72 cases of *mirad* (18a) were detected and 13 cases of *escuchad* (18b):

(18) a. Pero tío, *mirad* eso. Manolo, *mira*. Roberto, *mira*.

'But uncle, look at that. Manolo, look. Roberto, look.' (CREA: Mañas J.A., 1994)

b. [...] en un susurro muy dramático, escuchad, ha llegado Federico, [...].

'in a very dramatic whispering, listen, Federico has arrived.' (CREA: Mendicutti E., 1991)

The hierarchy *mirad* >> *escuchad* reflects the higher degree of control of the visual perceiver in comparison with the auditory perceiver. What is more, the speed of the development of the perception process can be more easily expressed with the visual voluntary and involuntary PVs than with the auditory ones. Remarkably, CREA does not provide similar contexts with *oir* and *escuchar*:

(19) a. El 4 Norte *verá rápidamente* el Moai de Isla de Pascua en las afueras del Museo Arqueológico de la Sociedad Francisco Fonck, [...].

'The 4 North will quickly see the Moai of Isle of Easter in the suburbs of the Archaeological Museum of the Francisco Fonck Society.' (CREA: Lux G., 1997)

b. Miró un momento su copa y volvió a *mirar rápidamente* al pintor [...].

'He looked a moment at his cup and he looked quickly at the painter again.' (CREA: Chamorro E., 1992)

⁶ Count effectuated in CREA in March 2013 by selecting the peninsular corpus of the period 1950-2004. We also found 18 examples of *ved* and 5 of *oid*, but since they pertain to the domain of involuntary perception, they are not taken into account. Only the imperative forms of the 2nd person plural have been analysed because the other forms are highly syncretic: the singular forms *oye*, *ve*, *mira* and *escucha* also denote the 3rd person singular of the indicative; *oiga* (*-mos*, *-n*), *vea* (*-mos*, *-n*), *mire* (*-mos*, *-n*) and *escucha* (*-mos*, *-n*) also belong to the paradigm of the subjunctive. Moreover, forms such as *oiga*, *mira*, *escucha*,...can be used as discourse markers, inciting the interlocutor to pay attention to what is said (see for instance Chodorowska-Pilch 2008; Cuenca / Marín 2000; Pons Bordería 1998 among many others). Thus, *oid*, *ved*, *mirad* and *escuchad* are the only forms which unambiguously denote the imperative. Note that the relative frequency of the verbs *in se* cannot explain the frequency differences of the imperatives. A count of the infinitives *ver*, *oir*, *mirar* and *escuchar* for instance shows that *mirar* (4282) occurs more frequently than *escuchar* (3753) but when calculated proportionally, the same hierarchy appears: *mirad/mirar*: 1.68% > *escuchad/escuchar*: 0.35%.

Finally, the different degrees of control of the end of the perception process is reflected in the higher frequency of the construction $dejar\ de + PV$ for the visual PVs than for the auditory ones. The following hierarchy has been observed in the CREA corpus: $dejar\ de\ mirar\ (105\ instances) >> dejar\ de\ ver\ (37) > dejar\ de\ escuchar\ (7) / dejar\ de\ oir\ (7)$.

Moreover, the analysis of the lemma's of perception nouns such as *vista* and *mirada* in the *Diccionario de Uso del Español* (Moliner 1998²) yields a series of expressions pointing towards the high degree of control of the visual perceiver (20a). The series of expressions indicating the control of the auditory perceiver is much more limited (20b). Moreover, as is illustrated by the idioms in (20c), visual perception can even be associated with activities such as eating, tearing to pieces or swallowing:⁷

- (20) a. alzar/levantar la vista/la mirada (to raise one's sight), bajar la vista (to let down one's sight), apartar la vista (to turn away one's sight), sostener/clavar la vista (to sustain one's sight, to fix one's eyes upon), dirigir la vista/la mirada (to direct one's sight towards), pasar la mirada en (to move one's sight towards), tender/extender la mirada (to extend, to spread one's sight),...
 - b. aguzar/aplicar el oído (to sharpen one's ears/hearing), ser todo oídos (to be all ears).
 - c. comerse con la vista (to eat something with one's sight), devorar con la vista (to devour something with one's sight), tragarse con la vista (to swallow something with one's sight).

Finally, the comparison of (21a) and (21b) suggests that visual perception is conceived as a projection going out from the eyes while auditory perception 'arrives at' the ears. This property is discussed in terms of 'directness' in Ibarretxe-Antuñano (1999, 2003):

(21) a. *Echar* una mirada

'to throw a look at something'

b. *Llegar* una cosa *a* oídos de alguien

'something arrives at the ears of someone'

In conclusion, the preceding analysis shows that perceivers are characterized by different degrees of agentivity. First, the voluntary perceiver/subject is closer to the prototypical agent than the involuntary one; within this opposition, the visual perceiver/ subject is closer to the prototypical agent than the auditory one because of his higher degree of control. Let us now consider the characteristics of the stimuli of PVs.

3.2 The stimulus: a prototypical patient?

First, the voluntary perceiver is familiar with the perceived object; otherwise he would not have choosen to direct his attention towards the stimulus. This familiarity condition has led Kirsner & Thompson (1976: 227) to conclude that the voluntary PVs should normally select definite and individuated DOs. This trait is neutral for the

⁷ The Spanish expressions have been translated rather literally into English in order to illustrate the high degree of control of visual perception.

DOs of the involuntary PVs: they can be definite or not.⁸ An analysis of the corpus of infinitive constructions – which will be analysed in detail in Section 4 – yields the following quantitative results:

	stimulu	ıs + DEF	stimul	lus - DEF	total		
	#	%	#	# %		%	
ver	826	73.5%	298	26.5%	1124	100%	
oír	427	78.6%	116	21.4%	543	100%	
mirar	54	94.7%	3	5.3%	57	100%	
escuchar	117	78%	33	22%	150	100%	
total	1424	76%	450	24%	1874	100%	

Table 1. Definiteness of stimuli of perception

Table 1 shows that in general, the number of definite objects is high: 76% of the analysed cases. Moreover, the visual voluntary PV *mirar* seems to be the verb with the strongest inclination towards definite stimuli/objects (94.7%). Indeed, since looking at something involves physical and mental activity, the stimulus has to be well-known before he can catch the perceiver's attention (22a). The lower degree of control with the other PVs somehow weakens the necessity of familiarity with the stimulus (22b):

a. Lorencito Quesada *miraba* desplegarse a toda velocidad *las arboledas*, *los pasos elevados* y *los rascacielos de cristal* de la imponente avenida, [...]. 'Lorencito Quesada looked at the trees, the high passes and the crystal skyscrapers of the impressing avenue, spreading at full speed.' (MM: 161) b. [...] *oyó* abrirse y girar *una portezuela* y desplegarse *un estribo*. 'he heard a door open and turn and a stirrup scatter.' (JP: 41)

Secondly, it was argued in Section 2 that the prototypical patient is an inanimate entity. An analysis of the same corpus of infinitive constructions shows that in general the rate of animate stimuli is high, as it occurs in 62.9% of the analysed objects. This suggests that the stimulus/object deviates from the prototypical patient⁹:

	stimulus + ANIM		stimulı	ıs - ANIM	total		
	#	%	#	%	#	%	
ver	602	53.6%	522	46.4%	1124	100%	
oír	428	78.8%	115	21.2%	543	100%	
mirar	25	43.8%	32	56.2%	57	100%	
escuchar	124	82.7%	26	17.3%	150	100%	
total	1179	62.9%	695	37.1%	1874	100%	

Table 2. Animateness of stimuli of perception

⁸ Definite stimuli are proper names (*Juan, Miguel,...*) and NPs introduced by the definite article (*el, la, los, las*), a demonstrative (*este, esa, aquellos,...*) or possessive adjective (*mi, tu, nuestros, vuestras,...*); indefinite stimuli are NPs introduced by the indefinite article (*un, una, unos, unas*), a numeral adjective (*dos, mil,...*) or an indefinite quantifier (*tantos, otros,...*) (Enghels 2007b).

⁹ It should however be taken into account that these data have been calculated in the specific corpus of PVs followed by an infinitive construction.

What is more, the hierarchy escuchar (82.7%) > oir (78.8%) > ver (53.6%) > mirar (43.8%) clearly shows that the number of animate objects is higher in the domain of the auditory PV's (23a) than in the one of visual PVs (23b):

- (23) a. Cuando éramos niños nos aseguraban que si llegábamos a *oir* cantar *a la Tía Tragantía* la noche de San Juan estábamos perdidos, [...].
 - 'When we were children they assured us that if we heard 'la Tía Tragantía' sing the night of San Juan, we would be lost.' (JP: 572)
 - b. Una figura borrosa apareció tras el cristal y vio moverse el pomo de la puerta, [...].
 - 'A vague figure appeared behind the window and he saw the doorknob move.' (JP: 329)

This difference between the visual and auditory PVs can again be explained by the cognitive properties of the corresponding perception modalities: visual perception of an entity merely follows from its presence whereas auditory perception follows from the effect of the presence of a stimulus. To put it another way, an entity needs to produce some noise in order to be heard: a perceiver can hear a child crying, a dog barking or a car leaving, but normally he will not hear a house or a table on their own, because these entities do not produce sounds. On the other hand, the stimuli of visual perception can but do not have to be implicated in an activity. A perceiver can see a child playing, a dog running or a car leaving, but he can also see a house or a table just standing there. Consequently, the auditory PVs mainly select animate stimuli and a restricted group of inanimate stimuli, namely those which can autonomously produce noises such as cars or machines. The entities that can be heard because they produce noises will be called 'dynamic entities': they cause an internal mental or physical change of state. These observations suggest that the object of the auditory PVs seems to be more distant from the prototypical patient than the object of the visual ones, because of its inherently dynamic nature (see Section 4).

In this regard, García-Miguel (1995: 75) argues that the stimulus is the product of the perception event, or the 'effectuated' object, whereas a second group of authors (Bossong 1998:259; Dowty 1991: 577; Krefeld 1998: 160-161; Ibarretxe-Antuñano 1999, 2003) assigns to the stimulus the semantic function of direct cause of the act of perception and other related cognitive processes:

[...] the Stimulus causes some emotional reaction or cognitive judgment in the Experiencer. (Dowty 1991:577)

However, it was demonstrated in Section 3.1 that the perceiver can also function as the direct cause of the perception, since he uses his own energy to generate the perception event. To put it another way, perception processes are characterized by the presence of two potential causes: the perceiver/subject and the stimulus/object. Which one functions as the primary cause depends on the modality of perception.

In the case of voluntary perception, it is clear that the perceiver emits more energy than the stimulus. In the domain of involuntary perception, the situation is less clear. In a sentence like *Veo a Juan* ('I see John') for instance one could ask which participant emits more energy: the perceiver who exerts himself to see Juan or Juan who produces energy in order to be seen. We believe that it is the degree of dynamicity of the stimulus which determines its inclination towards the function of primary cause or not. Indeed, as has been stated formerly, dynamic entities cause a change of state. In the above-mentioned clause, the stimulus Juan does not have to be

dynamic in order to be seen: I can see Juan run but I can also see him just standing there. In other words, visual perception of an entity simply follows from its presence. Thus, the visual stimulus can function as the direct cause but, because of its potentially low degree of internal energy, it competes with the perceiver. On the contrary, within the domain of auditory perception, the stimuli have to produce noises in order to be heard: I can hear John run, but I will not hear John just standing there. Auditory perception results from the effect of the presence of the stimulus. The level of energy emitted by the auditory stimulus will inevitably be higher and this is why it can operate as the direct cause of the perception event:

(24) I hear a sound. = I hear a participant produce a sound. = I hear a (dynamic) participant.

To conclude, the DO stimulus is a non-prototypical patient because it is not affected by the perception process. However, the stimuli of the four modalities can be characterized by different degrees of prototypicality: the stimulus of visual perception is closer to the prototypical patient than the auditory one. The stimuli of *oir* and *escuchar* seem to be less prototypical objects because they generally function as the direct cause of the perception event and are mostly dynamic.

3.3 Intermediate conclusion: the degree of transitivity of the perception verbs

Authors who ascribe a static aspect to the PVs (such as Rogers 1974: 1-15; Van Valin 1990:226) assume that perception events are characterized by the absence of *kinesis*. However, the foregoing analysis shows that PVs in general do denote a transfer of energy. Yet, the decomposition of the traits of the perceiver and the stimulus learns that the transitivity of the PVs has to be defined in terms of continuity. What determines their classification in the first place, is the opposition between voluntary and involuntary perception, but the dichotomy *visual* vs. *auditory* does also play an important role.

As to prototypical transitivity, the voluntary visual PV *mirar* has the highest number of positive traits: the perceiver – acting voluntary and controlling his perception – is close to the prototypical agent, and the stimulus – not being the direct cause of the perception process – is close to the prototypical patient. Since the stimulus of the voluntary auditory PV *escuchar* is necessarily dynamic and the perceiver does not physically (but only mentally) controls the perception event, this verb is situated at a lower level on the transitivity scale. The perceiver of the involuntary visual PV *ver* controls the perception event, but less intensively than the voluntary perceiver(s). This trait does not apply to the involuntary auditory PV *oir* whose stimulus is also always dynamic and functions as the direct cause of the perception event. This leads us to the following hypothetical scale of transitivity:¹¹

¹⁰ For a more detailed analysis of the aspect of PVs, see Enghels (2007a, b).

¹¹ Space limits prevent us from situating the PVs within the general continuum extending between the semantically [+ transitive] and [- transitive] verbs. However, it is clear that the PVs are less transitive than verbs expressing a causative action (for instance hacer/to do, matar/to kill, comer/to eat), a movement (meter/to put), an act of communication (decir/to say, preguntar/to ask) or transference (dar/to give, tomar /to take). On the other hand, the position of the PVs compared to verbs of cognition (saber, conocer/to know), volition or emotion (amar/to love, desear/to want) still has to be determined. These lexical categories are also often cited as verbs with a low degree of semantic transitivity (see for instance Rodríguez Ramalle 2005). On the other hand, PVs seem to be more transitive than certain psychological verbs, such as padecer/to suffer and temer/to fear which have a subject that is affected by the process.

Figure 1. Scale of transitivity

This hierarchy has been elaborated based on the hypothesis that, since language and perception are closely related cognitive processes, the extra-linguistic and conceptual characteristics of the perception modalities influence the linguistic behaviour of the PVs. However, empirical data still needs to confirm that the scale of transitivity of the PVs actually affects the syntactic behaviour of the Spanish PVs. This is why the next section will be dedicated to the analysis of a specific syntactic phenomenon, namely the case marking of the perceived participant in the infinitive construction.

4. Case study: the case markings of the perceived participant in the infinitive construction

4.1 The infinitive construction and the prepositional accusative

The next pages will be dedicated to a complement type that expresses the direct perception of an event by a perceiver/subject (NP_1) . The perceived event includes a second participant – the subordinated or perceived participant NP_2 – who is responsible for the process expressed by the infinitive.

As is well-known, cases morphologically mark syntactic relations that can be established between the participants in a clause and their predicate: generally speaking, the nominative marks the subject, the accusative the DO and the dative the IO. However, in Spanish formal relations between the DO and the IO are somehow more complicated given that DOs can in certain contexts be preceded by the same preposition *a* as the IO. This phenomenon is known as the 'prepositional accusative' (Bossong 1998; Delbecque 1998; Roegiest 1979, 1998; Torrego Salcedo 1999 among many others).

As shown by the pronominalisation of NP₂, the case of the perceived participant in the infinitive construction can never be nominative, although he does act as the semantic subject of the infinitive:

(25) Oigo cantar a Juan. *Oigo cantar él. *Oigo él cantar. *I hear John sing.* **I hear sing he.* **I hear he sing.*

On the contrary, NP₂ receives its case 'exceptionally' from the PV, and this case varies between the dative (presence of the preposition a) (26a) and the accusative (absence of a) (26b):¹³

-

¹² Given that the study of the semantic transitivity of the PVs in Section 3 has been restricted to direct perception constructions, the empirical study will also be limited to these constructions. The infinitive complement is said not to refer to acts of indirect perception (e.g. Kirsner & Thompson 1976), hence the selection of this complement type.

¹³ Di Tullio (1998: 201) defines the *Exceptional Case Marking* as follows: "El verbo selecciona temáticamente la cláusula pero le asigna caso a su sujeto." In other words, the PV thematically selects the entire infinitive complement, but it assigns case to the subject of that complement, that is, the subordinated participant NP₂.

- a. Esa misma noche, [los residentes del Hilton Universal]_{NP1} despertaron agradablemente sorprendidos al [oír]_{PV} [a la vieja dama]_{NP2} [gritar]_{Inf} con el entusiasmo de una púber.
 - 'That same night, the residents of the Hilton Universal woke up pleasantly surprised to hear the old lady scream with the enthusiasm of an adolescent.' (CREA: Gómez Arcos A., 1991)
 - b. De pronto $[vi]_{PV}$ [una sombra] $_{NP2}$ [levantarse] $_{Inf}$ de la página escrita, [avanzar] $_{Inf}$ en dirección de la lámpara y [extenderse] $_{Inf}$ sobre la cubierta rojiza del diccionario.
 - 'Suddenly I saw a shadow stand up from the written page, move towards the lamp and extend over the reddish cover of the dictionary.' (BDS)

Several authors (e.g. Rodríguez Espiñeira 2002; Roegiest 1998) have claimed that the presence of an infinitive complement favors the occurrence of the dative to mark the perceived participant. In order to verify this hypothesis, a corpus of about 2000 relevant cases of the infinitive construction with a nominal perceived participant has been compiled. This sample is representative of modern (1950-2004) written peninsular Spanish. In what follows a quantitative and qualitative analysis of the corpus will show that the presence or absence of the dative mark *a* before NP₂ varies according to the degree of transitivity of the PV heading the construction.

The correlation between the type of PV – ver, mirar, oir or escuchar – and the presence or absence of a before NP₂ yields the following quantitative data:

	accusative NP ₂		dativ	e NP ₂	total		
	#	%	#	%	#	%	
ver	659	58.6%	465	41.4%	1124	100%	
oír	126	23.2%	417	76.8%	543	100%	
mirar	36	63.2%	21	36.8%	57	100%	
escuchar	26	17.3%	124	82.7%	150	100%	
total	847	45.2%	1027	54.8%	1874	100%	

Table 3. Case marking of NP₂

What immediately catches the eye is the high frequency of a with escuchar (82.7%) and oir (76.8%), and the much lower frequency with mirar (36.8%) and ver (41.4%). So the PV that has been identified in the previous section as the PV with the highest degree of transitivity, namely mirar, appears to be the one with the lowest number of dative marking for the perceived participant. Moreover, what also seems to play an important role in the selection of the case of the subordinated participant, is the modality of perception: the auditory PVs more frequently select the dative case than the visual ones.

How could the observed tendencies pointing towards a correlation between the case of the perceived participant and the transitivity of the PVs be explained? The consulted authors (Bossong 1998; Delbecque 1998; Primus 1999; Roegiest 2003 among others) found their analysis of the use of the prepositional accusative on the iconicity hypothesis according to which the emergence of a particular formal mark formalises a particular semantic value. In other words, the syntactic scheme $S_{nominative}$ V DO_{dative} represents a semantic configuration that is different from the unmarked biactancial construction $S_{nominative}$ V $DO_{accusative}$. In this perspective, the construction in which the DO is preceded by a, is characterized by a lower degree of transitivity than

the construction without dative markings.¹⁴ Consequently, given that the prototypical transitive construction can be conceived as a transmission of energy between the prototypical agent/subject and the prototypical patient/object, the inherent properties of both the subject and the object can trigger the use of the dative.

However, the study of the traits of the perceiver and the stimulus showed that, taking into account the four PVs, the former shows several characteristics of the prototypical agent whereas the latter is more distant from the prototypical patient. This is why we believe that the potentially lower degree of transitivity of the perception construction – and thus the corollary dative markings of the perceived participant – is caused by the possibly non-prototypical nature of stimuli of perception.

4.2 The dynamicity of the stimulus

The potential dynamicity of the DO has been referred to in the literature (Bossong 1998; Roegiest 2003 among others) as a possible instigator of the prepositional accusative: the absence of *a* characterizes the DO which does not have any control over the process described by the main verb, whereas the presence of *a* indicates that the DO has a higher degree of dynamicity. What is more, because of its potential dynamicity, the DO marked by the dative has been compared to the grammatical functions of subject (Bossong 1998: 202) and IO (Roegiest 2003: 300, 2007).

As was stated in Section 3.2, a participant can be said to be dynamic when he causes a physical or a mental change of state. This means that concrete human and animate entities are potentially dynamic whereas abstract and inanimate entities are not. However, within the category of the inanimates, non-dynamic entities, such as a house or a table, oppose to inanimates which 'auto-control' their activities, such as a car or the wind (see Enghels 2007b, 2009). Table 4 establishes a correlation between the dynamicity of NP₂ and its case marking:

	accusative NP ₂		dativ	e NP ₂	total	
	#	%	#	%	#	%
HUM	145	13.2%	957	86.8%	1102	100%
ANIM	38	49.4%	39	50.6%	77	100%
INAN DYN	155	90.1%	17	9.9%	172	100%
INAN NON DYN	367	96.3%	14	3.7%	381	100%
ABSTR	142	[100%]	ı	-	142	100%
total	847	45.2%	1027	54.8%	1874	100%

Table 4. Semantics of NP₂

These data show that human NP_2s are predominantly marked by the dative (86.8%) (27a) and that the number decreases with non-human animate entities (50.6%) (27b-c), and certainly with inanimate entities. However, the inanimate dynamic entities are

_

¹⁴ See also Primus (1999: 28): "Given the fact that in canonical transitive clauses the nominative or absolutive occurs as a default, different degrees of transitivity can be defined on the basis of the case of the second argument [...] the transitivity of a predicate with a nominative or absolutive and an accusative or ergative argument is higher than that of a predicate with a nominative or absolutive and a dative or other oblique argument."

Other elements that can influence the use of prepositional accusative are of course the definiteness of the DO and its number, singular or plural. Since the impact of these parameters has already been confirmed by other studies (e.g. Torrego Salcedo 1999), they will not be studied in detail here.

more frequently marked by a (9.9%) (27d) than the inanimate non-dynamic entities (3.7%) (27e). Finally, the dative does not occur with abstract NP₂s in our corpus (27f):

- a. *Ver a Woody Allen*, 20 años después, abrir en persona el Festival, [...]. 'To see Woody Allen, 20 years later, open the festival personally.' (EM: 4/4/2002)
 - b. Poco después de la siesta, los vecinos *vieron* pasar por la calle del 14 de mayo *el caballo moro del Dictador* [...].
 - 'Some time after the siesta, neighbours saw the Moorish horse of the Dictator pass in the street of the 14th of May.' (CDE: Lamas de Rodríguez Alcalá T., 1955)
 - c. Dio media vuelta entre la hojarasca y vio al caballo saltar con las manos trincadas.
 - 'He turned around between the foliage and, with tied hands, saw the horse jump.' (EH: 407)
 - d. Ha estado en Parellada esperando ver llegar al coche de Clara, [...].
 - 'He has been in Parellada waiting to see the car of Clara arrive.' (SOL: Romero L., 1952)
 - e. Ve constituirse en Santander una empresa productora impulsada por empresarios católicos [...].
 - 'In Santander he saw a production society being formed, created by catholic businessmen.' (CREA: Pérez Perucha J., 1995)
 - f. El año que viene la Unión Europea verá crecer el número de parados [...].
 - 'Next year the European Union will see the number of unemployed people increase.' (EP: 2/12/2001)

However, the inherent traits of dynamicity of NP_2 do not always explain the use of the dative: inherently dynamic entities are not always preceded by a (cf. 27b) and inherently non-dynamic entities can trigger the dative marking:

- (28) Y así estos días se ha podido *ver a más de un plumilla* seguir con temor/placer la línea de derrota [....].
 - 'And so these days one can see more than one nib follow with fear/pleasure the line of defeat.' (CREA: Prensa, 1996)

This is why the semantic nature of the infinitive should also be taken into account: when the verb assigns dynamicity to NP_2 , it is generally marked by the dative.

In order to measure the dynamicity of the infinitives, they are classified according to the degree of energy they implicate. As was argued in Section 2, transitive verbs denote a transfer of energy between two participants. When there is only one participant implicated in the process, which is the case with intransitive verbs, there is of course no transfer of energy. Moreover, as is well known (cf. for instance Perlmutter 1978; Kuno & Takami 2004), the category of the intransitive verbs is not homogeneous but contains two subclasses: the unaccusative verbs and the unergative verbs. In agreement with these authors, the unergatives can be defined as denoting an emission of energy by a participant (bailar/dance, vociferar/scream,...) as opposed to unaccusative verbs (caer/fall, aparecer/appear,...). To put it another way, unergatives are characterized by a very dynamic agentive subject, responsible for the emission of

energy, while the subject of the unaccusatives is less dynamic and rather functions as a patient. ¹⁶

The statistical data presented in Table 5 below show that transitive infinitives most frequently select the prepositional mark a (95.4%) (29a), followed by unergative infinitives (77.6%) (29b) and unaccusative ones (30.9%) (29c):

- (29) a. No pudo concluir sus oraciones: incrédulo, abatido, anonadado, *oyó* a las brasas *exhalar* un gemido siseante [....].
 - 'He couldn't stop his prayers: unbelieving, dejected, confounded, he heard the embers breathe out a hissing moan.' (CREA: Trías C., 1990)
 - b. [...] cerca del estanque, para que oigamos croar a las ranas...
 - 'close to the pond, in order to hear the frogs croak...' (CREA: Moncada S., 1993)
 - c. De pronto *veo* la cara de Andrés *crisparse* y siento que algo insólito está por venírsenos encima.
 - 'Suddenly I see the face of Andrés contract and I feel that something unusual is about to happen to us.' (CDE: Ventanas M., 1997)

	accusative NP ₂		dativ	e NP ₂	total		
	#	%	# %		#	%	
TR	18	4.6%	374	95.4%	392	100%	
INERG	94	22.4%	325	77.6%	419	100%	
INAC	735	69.1%	328	30.9%	1063	100%	
total	847	45.2%	1027	54.8%	1874	100%	

Table 5. Semantics of the infinitive

The dynamicity of the subordinated infinitive can thus explain the observed case vacillation with animate NP₂s (29b-c). In (29b) the unaccusative infinitive *pasar* weakens the inherent dynamic nature of the horse, whereas in (29c) his dynamicity is maintained due to the presence of the unergative *saltar*.

To conclude, the empirical analysis of the case marking of the subordinated participant in the infinitive construction has shown that highly dynamic NP₂s and infinitives mostly trigger the dative mark before the perceived participant whereas less dynamic NP₂s and infinitives more frequently select the accusative case. How do these findings correlate with the degree of transitivity of the PVs?

¹⁶ We are well aware of the fact that not all syntactically transitive verbs are more dynamic than

dynamic nature of the directly perceived events. Anyhow, the classification of the infinitives into three types provides us with a method that allows examining in a systematic way the correlations existing between the type of subordinated infinitive and the case marking of NP₂.

intransitive verbs, and that the tripartition *transitive* vs. *unergative* vs. *unaccusative* does not always represent a hierarchy ranging from the most dynamic to the less dynamic processes. In fact, many transitive verbs seem to be less dynamic than unergative verbs: the transitive cognition verbs for instance (*saber*, *conocer/know*) are less dynamic than the unergative *correr/run*, because of the lower degree of energy implicated. However, it is well-known (cf. for instance Kirsner & Thompson 1976) that this type of static verbs does not appear in the infinitive construction, because of the necessarily

4.3 The case of the subordinated participant and the transitivity of the PVs

We hypothesize that the alternation between the accusative and dative case of NP₂ is a phenomenon which concerns the global conceptualisation of the infinitive construction and in particular the transitivity of the PV heading the construction.

As has been argued in Section 4.1, the accusative case is the unmarked case for NP₂ since the access to NP₂ as an object of the perception event is direct. However, in accordance with the iconicity hypothesis, the dative mark entails an additional semantic value. In other words, the dative case indicates that NP₂ is not merely to be conceived as the object of perception but as the direct cause of the perception event. The insertion of the preposition *a* before NP₂ shows that the construction deviates from the prototypical unidirectional causative relation between an agent and a patient, *in casu* between the perceiver and the stimulus. More particularly, the syntactically transitive construction in which NP₂ is marked by the dative confers a higher degree of autonomy to the perceived participant. Thus, the dative case points towards an inversion of the prototypical transitive axis: the perceiving subject is presented as if he reacts to the activity caused by the subordinated participant or stimulus, instead of directing his attention towards him.

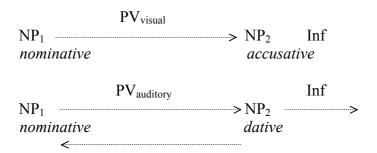
This hypothesis allows us to explain the statistical data observed in table 3 and the higher rate of dative marks in the domain of the auditory PVs oir and escuchar. It has been discussed in Section 3.2 that, according to the conceptual characteristics of the perception modalities, the stimulus of visual perception can be dynamic or not whereas the stimulus of auditory perception is necessarily dynamic: it has to produce some noise in order to be heard. This extra-linguistic difference seems to influence the linguistic behaviour of the Spanish PVs. As is shown in table 6, oir and escuchar mostly select dynamic participants and infinitives whereas ver and mirar select dynamic as well as less dynamic NP₂s and infinitives:

Table 6. Semantics of NP₂ and infinitive: visual vs. auditory perception

	NP ₂ DYN		NP ₂ NON		to	total		Inf DYN		Inf NON	
			DYN						DYN		
	#	%	#	%	#	%	#	%	#	%	
PV _{visual}	760	64.4%	421	35.6%	1181	100%	248	21%	933	79%	
PV _{auditive}	590	85.1%	103	24.9%	693	100%	563	81.2%	130	18.8%	

Consequently, NP₂ subordinated to the visual PVs – frequently non-dynamic – is more frequently conceptualized as the object of the perception process and marked syntactically as the patient of the prototypical transitive relation, thus by the accusative. On the contrary, NP₂ subordinated to the auditory PVs – necessarily dynamic – is marked as the source of an autonomous event and as the direct cause of the perception process. Therefore it more frequently receives the marks of the participant which is characterized by a higher degree of dynamicity, namely the dative. The high frequency of dative marking in the domain of *oir* and *escuchar* indicates a deviation of the prototypical transitive relation, and can thus be said to be a sign of the lower degree of transitivity of the auditory PVs:

Figure 2. Transitivity schemes: visual vs. auditory perception



5. Conclusion: the perception process, a transfer of energy?

To conclude, the visual voluntary PV *mirar* has been identified as the most transitive PV: the 'perceptual path' follows the prototypical transfer of energy between the perceiver/subject and the stimulus/object. In the case of the auditory PVs, and especially *oir*, the transitivity vector is inverted: the perceiver/subject is the endpoint of the mental transfer of energy instead of its source, due to the high degree of dynamicity of the stimulus. *Ver* is situated in between these two extremes: the perceiver/subject has low control over the perception process and the stimulus/object can but does not have to be dynamic.

This transitivity scale seems to correlate with the case marking of the perceived participant within the infinitive construction. The following tendencies have been observed. *Mirar* appeared to be the PV with the lowest number of dative marking. Indeed, as the most transitive PV, it is able to mark NP₂ as a typical object of perception, thus by the accusative. The intermediate transitive status of *ver* was also confirmed by its intermediate position on the scale representing the accusative/dative markings. Finally, the remarkably high amount of dative marking with the auditory PV *oir* and *escuchar* has been explained by the non-prototypical nature of their stimuli, and more particularly the inversion of the transitive scheme.

Finally, when discussing the degree of transitivity of PVs, one should not only take into account the distinction between voluntary and involuntary perception modalities, but also the difference between the visual and auditory modalities. All four modalities have been shown to have an impact on the syntactic behaviour of the PVs in Spanish. It remains to be answered, however, to what extent this hierarchy can be complemented by the verbs denoting other modalities of perception – such as the verb *sentir*, which in itself is highly polysemous and can denote general physical perception as well as auditory, gustative, olfactory and tactile perception – and how it is to be situated within a more general classification of Spanish verbs.

References

Blume, K. (2000). Markierte Valenzen im Sprachvergleich: Lizenzierungs- und Linkingbedingungen. Tübingen, Niemeyer.

Bossong, G. (1998). Le marquage de l'expérient dans les langues d'Europe, in J. Feuillet (ed.), *Actance et valence dans les langues de l'Europe*. Berlin/New York, Mouton de Gruyter, pp. 259-294.

Cano Aguilar, R. (1981). Estructuras sintácticas transitivas en el español actual. Madrid, Editorial Gredos.

Chodorowska-Pilch, M. (2008). *Verás* in Peninsular Spanish as a grammaticalized discourse marker invoking positive and negative politeness. *Journal of*

- *Pragmatics* 40 (8): 1357-1372. http://dx.doi.org/10.1016/j.pragma.2008.02.011
- Comrie, B. (1981). Language universals and linguistic typology: syntax and morphology. Chicago, University of Chicago Press.
- Cruse, D. (1973). Some thoughts on agentivity. *Journal of Linguistics* 9, pp. 11-23. http://dx.doi.org/10.1017/S0022226700003509
- Cuenca, J. & M. Marín (2000). Verbos de percepción gramaticalizados como conectores: análisis contrastivo español-catalán. *Revista Española de lingüística aplicada* 1, pp. 215-238.
- Delbecque, N. (1998). La dimensión paradigmática de la alternancia a/Ø en español más allá de la construcción transitiva, in J. Cifuentes Honrubia, (ed.), *Estudios de Lingüística Cognitiva*. Alicante, Universidad de Alicante, pp. 527-548.
- Di Tullio, A. (1998). Complementos no flexivos de verbos de percepción física en español. *Verba* 24, pp. 197-221.
- Dowty, D. (1991). Thematic protoroles and argument selection. *Language* 67 (3), pp. 547-619.
- Enghels, R. (2007a). L'aspect lexical des verbes de perception visuelle et auditive: différences conceptuelles et conséquences syntaxiques, in D. Trotter (ed.), *Actes du XXIV*^e Congrès de Linguistique et de Philologie Romanes. Tübingen, Niemeyer, pp. 77-90.
- Enghels, R. (2007b). Les modalités de perception visuelle et auditive: différences conceptuelles et répercussions sémantico-syntaxiques en espagnol et en français, Beihefte zur Zeitschrift für romanische Philologie. Tübingen, Niemeyer. http://dx.doi.org/10.1515/9783110944884
- Enghels, R. (2009). The syntactic position of the perceived participant as indicator of the internal structure of the Spanish and French infinitival complement. Linguistics 47 (3), pp. 759-791. http://dx.doi.org/10.1515/LING.2009.025
- García-Miguel, J. (1995). *Transitividad y complementación preposicional en español. Verba, Anexo 40.* Santiago de Compostela, Imprenta Universitaria.
- García-Miguel, J. (2005). Aproximación empírica a la interacción de verbos y esquemas construccionales, ejemplificada con los verbos de percepción. *Estudios de Lingüística* 19, pp. 169-191
- Geisler, H. (1989). Das Verhältnis von semantischer und syntaktischer Transitivität im Französischen. *Romanistisches Jahrbuch* 39, pp. 22-35. http://dx.doi.org/10.1515/9783110244953.22
- Gruber, J. (1965). Studies in Lexical Relations. PhD. MIT, Cambridge.
- Ibarretxe-Antuñano, I. (1999). *Polysemy and Metaphor in Perception Verbs: A Crosslinguistic Study*. PhD. University of Edinburgh.
- Ibarretxe-Antuñano, I. (2003). El cómo y el porqué de la polisemia de los verbos de percepción. in C. Molina, M. Blanco, J. Marín, A.L. Rodríguez & M. Romano (eds.), *Cognitive Linguistics in Spain at the turn of the century*. Madrid, UAM, pp. 213-228.
- Hanegreefs, H. (2008). Los verbos de percepción visual. Un análisis de corpus en un marco cognitivo. PhD. KULeuven.
- Holierhoek, C. (1980). Werkwoorden van waarneming. Aspekten van hun systematiek en ontwikkeling. Den Haag, Universitaire Pers Leiden.
- Hopper, P. J. & S.A. Thompson (1980). Transitivity in grammar and discourse. *Language* 56 (2), pp. 251-299.

- Kirsner, R. S. & S. A. Thompson (1976). The role of pragmatic inference in semantics: a study of sensory verb complements in English. *Glossa* 10 (2), pp. 200-240.
- Kittilä, S. (2002). Remarks on the basic transitive sentence. *Language Sciences* 24, pp. 107-130. http://dx.doi.org/10.1016/S0388-0001(00)00043-7
- Kleiber, G. (1990). La sémantique du prototype: catégories et sens lexical. Paris: PUF.
- Krefeld, T. (1998). Transitivität aus rollensemantischer Sicht. Eine Fallstudie am Beispiel französischer und italienischer Wahrnehmungsverben, in H. Geisler & J. Daniel (eds.), *Transitivität und Diathese in romanischen Sprachen*. Tübingen, Niemeyer, pp. 155-173. http://dx.doi.org/10.1515/9783110912470.155
- Kuno, S. & K. Takami (2004). Functional Constraints in Grammar: on the unergative-unaccusative distinction. Amsterdam & Philadelphia, John Benjamins Publishing Company.
- Lakoff, G. (1977). Linguistic Gestalts. Chicago Linguistics Society 13, pp. 236-287.
- Langacker, R. (1987). Foundations of Cognitive Grammar. Theoretical prerequisites. Stanford, Stanford University Press.
- Langacker, R. (1991). Foundations of cognitive grammar. Descriptive application. Stanford, Stanford University Press.
- Lazard, G. (1984). Actance variations and categories of the object, in F. Plank (ed.): Objects. *Towards a theory of grammatical relations*. London, Academic Press, pp. 262-292.
- Maldonado, R. (1999). *A media voz. Problemas conceptuales del clítico* se. México, Universidad Nacional Autónoma de México.
- Moliner, M. (1998)². *Diccionario de uso del español*. Madrid, Gredos.
- Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis, in *Proceedings of the 4th Annual Meeting of the Berkeley Linguistics Society*. California, Berkeley Linguistics Society, pp. 157-189.
- Pons Bordería, S. (1998). *Oye* y *mira* a los límites de la conexión, in M. A. Martín Zorraquino & E. Montolío Durán (eds.), *Los marcadores del discurso: teoría y análisis*. Madrid, Arco Libros, pp. 213-228.
- Primus, B. (1999). Cases and thematic roles. Ergative, Accusative and Active. Tübingen, Niemeyer. http://dx.doi.org/10.1515/9783110912463.32
- Rodríguez Espiñeira, M. (2002). Las oposiciones léxico-gramaticales entre *mirar/ver* y *escuchar/oír*, in R. Lorenzo (ed.), *Homenaxe a Fernando R. Tato Plaza*. Santiago de Compostela, Universidade de Santiago de Compostela, pp. 473-489.
- Rodríguez Ramalle (2005). *Manual de sintaxis del español*. Madrid, Castilla Universidad.
- Roegiest, E. (1979). À propos de l'accusatif prépositionnel dans quelques langues romanes. *Vox Romanica* 38, pp. 37-54.
- Roegiest, E. (1998). Variación del objeto directo español y dinamicidad verbal, in N. Delbecque & C. De Paepe (eds.), *Estudios en honor del profesor Josse De Kock*. Leuven, Leuven University Press, pp. 469-488. http://dx.doi.org/10.1515/9783110919837.299
- Roegiest, E. (2003). Argument structure of perception verbs and actance variation of the Spanish direct object, in G. Fiorentino (ed.), *Romance objects. Transitivity in Romance languages*. Berlin & New York, Mouton de Gruyter, pp. 299-322.

- Roegiest, E. (2007). Transitivity and referentiality in Spanish and Rumanian, in N. Delbecque & B. Cornillie (eds.), *On interpreting construction schemes*. Berlin, Mouton de Gruyter, pp. 39-59.
- Rogers, A. (1974). *Physical perception verbs in English: a study in lexical relatedness*. London, University Microfilms international.
- Sweetser, E. (1990). From etymology to pragmatics. Metaphorical and cultural aspects of semantic structure. Cambridge, Cambridge UP. http://dx.doi.org/10.1017/CBO9780511620904
- Sekuler R. & R. Blake (2006)⁵. *Perception*. New York, McGraw-Hill.
- Taylor, J. (1995)². Linguistic categorization. Prototypes in linguistic theory. Oxford, Clarendon Press.
- Torrego Salcedo, E. (1999). El complemento directo preposicional, in I. Bosque & V. Demonte (dirs.), *Gramática descriptiva de la lengua española*. Madrid, Espasa-Calpe, pp. 1780-1805.
- Van Valin, Robert D. Jr. (1990a). Semantic parameters of split intransitivity. Language 66 (2), pp. 221-260. http://dx.doi.org/10.2307/414886
- Van Valin, Robert D. Jr. (1999). Generalized semantic roles and the syntax-semantics interface, in F. Corblin, C. Dobrovie-Sorin & J.M. Marandin (eds.), *Empirical issues in formal syntax and semantics* 2. The Hague, Thesus, pp. 373-389.
- Van Valin, R. Jr. & R. Lapolla (1997). Syntax. Structure, meaning and function. Cambridge, Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139166799
- Vázquez Rosas, V. (2004). Transitividad prototípica y uso. *Boletín de Lingüística* 21, pp. 92-115.

Referenced corpora

Borges, Jorge Luis: Ficciones, Madrid: Biblioteca Borges, ed. 1999. [F]

Davies, Mark, Brigham Young University: *Corpus del Español*, http://www.corpusdelespanol.org/[CDE]

Delibes, Miguel: *El Hereje*, Barcelona: Destino, ed. 1998. [EH]

Diario Sur Digital, 2002, http://www.diariosur.es/ [DS]

El Mundo, 2000-2002, http://www.elmundo.com/ [EM]

El País, 1999, Cd-rom. [EP]

Grupo de Sintaxis del Español, Universidad de Santiago de Compostela: *Base de Datos Sintácticos del Español Actual*, http://www.bds.usc.es/ [BDS]

Muñoz Molina, Antonio: *Los misterios de Madrid*, Barcelona: Seix Barral, ed. 1992. [MM]

Muñoz Molina, Antonio: El jinete Polaco, Barcelona: Planeta, ed. 2001. [JP]

Real Academia Española: Corpus de Referencia del Español Actual, http://www.rae.es/ [CREA]

Spanish Online: *Concordancias españolas en la Web*, http://spraakdata.gu.se/lb/konk/rom2/[SOL]