

Multimodal Metaphors and Mirror Neurons' Analysis in
Spanish TV Commercials

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I. Introduction

In the last years, there has been growing interest in multimodal metaphors within the field of Critical Discourse Analysis. It is of special remark the work carried out by Charles Forceville in this matter. Nevertheless, none of the current researches on the area has focused the study on a dual analysis of multimodal metaphors and mirror neurons activation's devices in television advertisements. The present work is aimed at analysing current marketing directions in Spanish television advertisements by means of the metaphoric and neuronal processes through which information is conveyed.

My investigation takes as point of departure the studies about mirror neurons done by the neurophysiologists Giacomo Rizzolatti, Vittorio Gallese, Luciano Fadiga and Leonardo Fogassi of the University of Parma in Italy; as well as the neurologist and neuroscientist Marco Iacoboni at UCLA (University of California, Los Angeles). Basically the main assumption regarding these brain cells is that "seeing and doing are one and the same" (Lindstrom, 2009: 56).

The findings of these researchers start becoming the bases of recent Neuromarketing investigations. In the last years, this new field of marketing has become the primary tool companies use to predict the success or failure of their products. Since Lindstrom points out, "roughly 90 percent of our consumer buying behavior is unconscious" (2009: 195). This is the reason why the neuromarketing study carried out in 2006 by Iacoboni and his research team has such relevance for neuromarkers today, the same way it has for my analysis. They do brain imaging (this technique will be explained later on) of Super Bowl ads. It was one of the first 'instant-

science' experiments which, taking into account mirror neurons, showed the neuronal centres that are involved when viewers watch a commercial for the first time.

Iacoboni concluded that as “las neuronas espejo [son] un índice de nuestro sentido de afinidad con otras personas” (2009: 220), they “[deberían] ser un muy buen factor de predicción del comportamiento futuro, es decir, de las futuras decisiones y compras” (2009: 222). Hence, I assume that those features, with which viewers empathize the most, will be the ones that activate mirror neuron system and that are responsible for modelling later purchasing behaviours. Furthermore, his investigation proved that there exists a ‘disociación en la traducción’, in the sense that there is a disconnect between people’s verbal reports on ads and what their brain activity seem to suggest (2009: 228).

Although his hypothesis has not been demonstrated yet, since the test subjects have not been *observed* after the study in order to demonstrate that “los marcadores cerebrales son indicadores mucho más confiables de las futuras compras [...] que sus informes verbales” (2009: 228); the business strategist Dev Patnaik supports that if producers create a sort of empathic connection with consumers, they “can have profound effects on [their] company” (2009: 14).

The purpose of this paper is therefore to extend the study initiated by these researchers by presenting a neuronal perspective of the devices used in the announcements that *may* trigger these brain cells.

Moreover, in this investigation it is shown that “creative metaphors occurring in commercials usually draw on a combination of language, pictures and non-verbal sound” (Forceville, 2007: 15). My announcements are therefore also discussed from the perspective of multimodal metaphors in order to explore the parameters governing these

metaphors. Whether how these metaphors are to be construed is to a considerable extent influenced by expectations pertaining to the genre. Thus, I suppose that in advertising devices that lead to a metaphor occurrence will be related to the creation of a positive brand image.

The analysis of the data is mainly divided into two distinct sections. The first part consists of a study of multimodal metaphors; and this is followed by an examination of the devices that supposedly trigger viewers' mirror neurons while they are watching these television announcements.

II. Method

In this paper I will investigate audiovisual material belonging to the genre of advertising. The data chosen for my study are drawn from four announcements broadcast on Spanish television channels between the years 2008 and 2010, which have been collected from the internet.

My limiting condition has forced me to restrict my investigation to commercials that have been designed by Spanish agencies for the Spanish television. The reason is not to misinterpret the Creative Directors' intentions due to my cultural background.

The purpose to opt for television commercials is because of the fact that the genre of advertising is a highly multimodal medium; and since the situations, as well as the protagonists of these ads, can be suitable for triggering viewers' mirror neurons.

The cases studied are divided into two groups, each composed by two spots. Group A consists of 'car advertising' ads and Group B is about 'internet service advertising'. The subject matters were randomly selected.

The four announcements that will be studied are included in a DVD attached to my dissertation. Moreover, links to online websites will be provided in the case of making reference to distinct versions of the commercials. Thus, I apologize for the fact that some parts of my analysis will require to see the visual images for fully understanding.

My analysis largely consists of a qualitative study of multimodal metaphors and mirror neurons in four television announcements. I will divide the analysis of each spot

into four sections. Every analysis will begin with a ‘contextualization’ of the ad, where I will describe general details concerning ‘when’, ‘by whom’ and ‘what’ is the commercial about. Following this, its storyline will be described. In the narration, a transcription of the main verbal information will also be included. The introduction to the announcement will be followed by a ‘multimodal metaphor(s) construal’ section. Regarding to this part, I will take into consideration which channels of information (visuals, written language, spoken language, non-verbal sound or music) are involved in the cueing of the metaphor. However, though the cognitive linguist C. Forceville confers mode-status to gestures, I will include ‘gesturing’ within the visual mode. Moreover, I will formulate metaphors in the prototypical ‘A is B’ format; which means that the target and source domains will be linked by a copula. Finally, after metaphor construal I will analyse the devices in the commercial that may trigger mirror neurons. In this last part of my investigation I will focus on those features that contribute to getting the viewers’ attention, their involvement into the story and in consequence, the acquisition of the intended advertising message.

III. Theoretical Background

Mirror neurons were discovered at the beginning of the 1990s in Parma (Italy) by Giacomo Rizzolatti and his research team, composed of Vittorio Gallese, Luciano Fadiga and Leonardo Fogassi. These neurophysiologists were investigating how the brain organizes motor behaviours; specifically, they were looking at a region of a macaque monkeys' brain known by neurophysiologists as *F5* or the premotor area, which registers activity when the monkey carries out certain gestures, like picking up a nut. In this way, whenever the monkey picked up an object, they recorded his brain's activity.

Nevertheless, how did they notice the existence of mirror neurons for the first time is still unclear. A story tells that one day one of the neurophysiologists, Gallese, walked into the lab and picked up something (he does not remember exactly what); one of the monkeys watched him and the neurons in his brain lit up “in the same way they had when the monkey had picked up [this something] himself” (Patnaik, 2009: 94). It seemed that simply by observing a gesture, the monkey's brain had mentally imitated the very same gesture. Therefore, it was concluded that the macaques' premotor neurons lit up not just when the monkeys reached for an object, but also when they saw *others* reaching for a thing. This came as a surprise to Rizzolatti's team “since neurons in premotor regions of the brain typically do not respond to visual stimulation” (Lindstrom, 2009: 54); what demonstrated that “la percepción y la acción constituyen un proceso unificado en el cerebro” (Iacoboni, 2009: 25).

They called these special brain neurons ‘mirror neurons’, and they placed them in the premotor area (region *F5*) and the inferior parietal lobule (area *PF*) of macaque monkeys' brain (2009: 66).

Most neurophysiologists used to coincide in saying that “existe una correspondencia bastante alineada entre la estructura de la corteza de los macacos y la del hombre” (2009: 18). However, for ethical reasons scientists have not studied mirror neurons in humans following the same procedures than in macaques. Experiments using *brain imaging* techniques¹, such as functional Magnetic Resonance Imaging (fMRI) or Positron Emission Tomography (PET); and electrophysiological techniques, such as Acquisition of Electroencephalogram (EEG)², have captured images of the human brain that have led to locate mirror neurons in the inferior frontal cortex and the superior parietal lobule (Lindstrom, 2009: 55).

On the other hand, Iacoboni has tried to establish a correspondence between humans’ and monkeys’ brains. According to him, it is probably that the pars opercularis of the inferior frontal gyrus (Brodmann area 44 or BA44) corresponds to area PF in the macaque; and the left hemisphere of BA44 (Broca’s area) is analogous to region F5 in the brain of the monkey (Iacoboni, 2009: 67). Nevertheless, there is still debate as to whether any of the human neuroimaging studies constitute conclusive evidence for locating mirror neurons in the human brain (Dinstein *et al.*, 2008).

However, findings have demonstrated that grasp observation also produces an activation in humans (Iacoboni, 2009: 59). Furthermore, recently numerous empirical researches in humans have proved that these multitasking mental cells do not only serve to codify the observed action, but also they may understand the intention behind. As Iacoboni argues:

¹Nos permiten visualizar en tres dimensiones con una notable definición especial las variaciones de flujo sanguíneo determinadas en las diversas regiones del cerebro por la ejecución y observación de específicos actos motores, y mediar, así, su respectivo grado de activación,

²Los registros electroencefalográficos permiten determinar las variaciones de la actividad eléctrica espontánea del cerebro y clasificar sus diferentes ritmos basándose en las distintas frecuencias de onda.

Dado que nuestros propios movimientos están casi siempre asociados a intenciones específicas, la activación en mi cerebro, cuando veo a otras personas realizar estos mismos movimientos, de las mismas neuronas que uso para realizar mis propios movimientos puede permitirme comprender sus intenciones. (2009: 37).

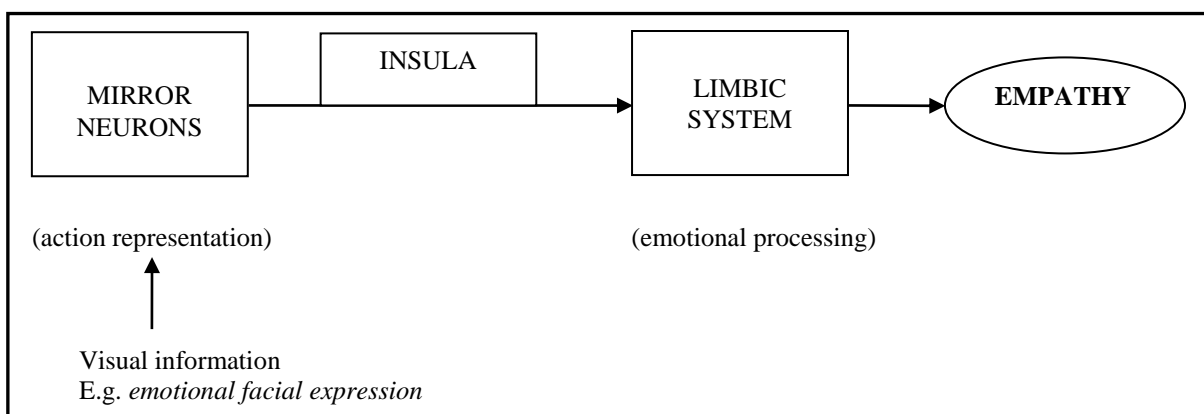
Hence, the activation of mirror neurons during action observation also allows the observer to understand the other individual's intention.

To test the fact that mirror system can grasp the meaning of an action, Iacoboni and his colleagues made an experiment that was published in the journal *PLoS (Public Library of Science) Biology*, in 2004. The research consisted of showing three different types of videos to twenty-three subjects in which a hand was grasping a cup. The first video was free of context and the other two were *context* clip. The second video showed the hand grasping the tea cup to clean it up (after-tea-time scene) and the last one, the same hand getting ready to drink the cup (before-tea-time scene). Mirror neurons showed more activity during the context clips; however, their activation was significantly higher during the drinking intention clip. According to Iacoboni, “este resultado tiene sentido dado que beber es una intención mucho más primaria que limpiar” (2009: 80). This test suggests that mirror neurons can do more than acknowledge action; they can also codify the intention behind.

Furthermore, the neuroscientists Evelyn Kohler and Christian Keysers made another research about understanding actions. They found out how these nerve cells could also respond to more than just visual stimuli. They provided evidence in their study that mirror neurons are *multimodal* as they can be activated by not just by watching actions, but also “by *hearing* and *reading* about them” [emphasis added] (Kohler and Keysers, 2002).

This finding, together with the fact that area F5 (monkeys' brain) is analogous in humans to Broca's area, leads to think that these cells *might* be the precursors of human speech (Iacoboni, 2009: 43). Broca's area is devoted to language processing and it also "posee propiedades motoras no reconducibles exclusivamente a funciones verbales"; it "tiene [además] la function primordial de vincular el reconomiento a la producción de la acción" (Rizzolatti and Sinigaglia, 2006: 155), what makes it essential in imitation (2009: 94). As Iacoboni suggests, "es como si las neuronas espejo nos ayudaran a entender lo que leemos simulando de manera interna la acción que acabamos de leer en la oración" (2009: 97).

Moreover, recently has been discovered the "existencia de un reflejo especular para compartir emociones positivas expresadas a través de la vocalización" (2009: 107). Hence, when someone hears shouts of joy, an *empathic* connection is supposedly established, in the sense that this individual would experience the same joy than has been transmitted. This result makes them play a large role in internalizing another person mental state; and therefore, in feeling empathy for someone. Thus, a better definition for mirror neurons would be "el mecanismo por el que sabemos qué hacen, *piensan y sienten* los demás" [emphasis added] (2009: 14); as they also connect us with the others mentally and emotionally. The neuronal mechanism would be the following:



(adapted from Iacoboni).

Hence, there is a vehicle or an anatomic via between mirror neurons' system (responsible for imitation or inner simulation) and the limbic system (responsible for emotions), which is the *insula*. It is “una región cortical en la que están representados los estados internos del cuerpo y además constituye un centro de integración visceromotora cuya activación provoca la transformación de los *inputs* sensoriales en reacciones viscerales” (Rizzolatti and Sinigaglia, 2006: 181). Then, once visual information describing an emotion comes to the insula, “un mecanismo espejo autónomo y específico” is triggered, which immediately codifies the information into “sus correspondientes formatos emotivos” (2006: 181) by activating “las mismas estructuras neurales (motoras o visceromotoras)” (2006: 182) that the ones associated with that emotion. Hence, “se trata de un reflejo especular interno que no nos implica ningún esfuerzo, automático e inconsciente” (Iacoboni, 2009: 122). Thus, the activation of mirror neurons leads to *translate* visual information into motor code, what allow us to feel the emotions observed. The *understanding* of the emotion “posibilitada por el mecanismo de las neuronas espejo” is therefore, “el prerrequisito fundamental del comportamiento empático” (Rizzolatti and Sinigaglia, 2006: 182).

This function of mirror neurons is originated since we are born. Babies mainly learn to *mirror* emotions by means of the interaction with their parents (Iacoboni, 2009: 134). The mechanism to understand others' emotions and feel empathy for them is then learned “from social others by observing” (Meltzoff, 2005). As babies grow up, there is the tendency to imitate those people with whom you feel more empathy for. Hence, “a mayor afinidad, mayor *espejularidad*” (Iacoboni, 2009: 73). Therefore, empathy and imitation go hand by hand.

On the other hand, the fact that the brain may represent others' actions like one's own raises the issue of how we distinguish self from other. Nevertheless, "el sentido de ser el agente de las propias acciones persiste -a 'pesar' de las neuronas espejo- al incrementarse la respuesta que recibimos de nuestro propio cuerpo" (Iacoboni, 2009: 254). Moreover, psychologists are finding that "the mature adult mirror system [can] regulate itself", particularly when it comes to empathy. Thus, "a regulated mirror system acts not as a complete mirror, merely flipping around another's emotion" (Jaffe, 2007). Instead, it "[facilita] el paso de la acción potencial, codificada por las neuronas espejo, a la ejecución del acto motor propiamente, siempre y cuando éste sea útil para el observador, pero también [es] capaz de bloquear semejante paso" (Rizzolatti and Sinigaglia, 2006: 149). Iacoboni suggests that the responsible for this regulated mirror system can be found in a sort of "superneuronas espejo" (2009: 196), which "[permiten la] inhibición de las neuronas espejo más 'clásicas', de modo tal que cuando vemos que alguien ejecuta alguna acción, no lo imitemos de manera compulsiva" (2009: 205). Hence, humans have the capacity to regulate their tendency to ape others' actions and then their own feelings and emotions for their own good.

Nevertheless, mirror neurons should still force us to reconsider our ideas about free will. As Iacoboni argues, "las neuronas espejo del cerebro producen influencias imitativas automáticas de las cuales por lo general no somos conscientes y que limitan nuestra autonomía por medio de potentes influencias sociales" (2009: 204). Moreover, we are often not given direct access to the reasons we act the way we do. This "disociación de la traducción" (2009: 214) is noticeable, for instance, when someone is forced to say whether she/he likes or not a television announcement.

As many of our decisions are shaped beyond our control, neuromarketing researchers plead for the use of neuroscience to understand how advertising works (2009: 216). Their aim is to “[revelar] a los consumidores y a los especialistas en mercadotecnia qué le gusta a la gente. Inclusive, [hacer] a los consumidores más concientes de sus propias motivaciones profundas, las cuales [...] no pueden verbalizar de manera explícita” (2009: 216).

Few neuromarketing studies could be more intriguing than one carried out in 2006 by a team of researchers led by Iacoboni at UCLA Brain Mapping Centre. Using a fMRI, they scanned the brains of five healthy volunteers as they watched Super Bowl ads to measure their impact. They tested a total of 24 ads, 21 Super Bowl ads and three ‘test ads’. They compared brain activity when subjects were watching the ads with “valor basal de reposo” (2009: 225), when they did nothing.

On the one hand, this instant-science experiment demonstrated there is a strong disconnect between what people say and what their brain activity seem to suggest. For instance, female subjects gave verbally very low grades to ads using actresses in sexy roles, but their mirror neurons areas seem to fire up quite a bit.

On the other hand, this brain imaging experiment paid special attention to “sistema de las neuronas espejo, el sistema de gratificación, los centros cerebrales del control ejecutivo y los centros cerebrales de la emoción” (2009: 226), as activity in these zones was supposedly a good indicator of a successful ad. The orbito-frontal cortex and the ventral striatum activity indicates ‘reward processing’, which is divided into several steps, such as “el comportamiento de acercamiento y consumación destinado a adquirir las gratificaciones” or “la ‘expectativa’ de las gratificaciones” (Schultz *et al.*, 1997). And the activity in the right posterior inferior frontal gyrus is what indicates *identification* and *empathy*.

Some announcements induced responses in mirror neuron areas, what according to Iacoboni could mean that this was a “consecuencia de mayores niveles de identificación con esos avisos por parte de los espectadores” (2009: 227). In this way, those ads which used actresses in sexy roles that triggered female subjects’ mirror neurons could suggest some form of empathic connection. However, it was the Disney’ ad (http://www.youtube.com/watch?v=_bY75hnNzyk) the overwhelming winner among the Super Bowl ads. This announcement elicited robust responses in mirror neurons areas and the two brain regions associated with processing of rewards.

According to Iacoboni “la motivación (sistema de gratificación) y la empatía y la identificación (sistema de neuronas espejo) [deben ser] [...] factores de predicción muy superiores de las futuras elecciones de los sujetos” (2009: 228). However, as Dooley (2009) points out, “the functions of these areas are still controversial”; then, “even if some ad actually elicits a high response in the reward system, this activity may not simply correlate with a clear-cut preference for the ad”. Moreover, there exist “mecanismos de control [...] ejecutados por las áreas corticales del lóbulo frontal” (Iacoboni, 2009: 218) that compete in the decision-making about whether to buy or not a certain product/service. Therefore, marketers should need a better understanding of how neuroscience really works in order not to anticipate incorrectly later purchasing behaviours by means of the observed brain activity.

There have been other authors interested in marketing and business who have largely studied the role of emotion, reward and empathy in people’s brains. For instance, Dev Patnaik, a founder and chief executive of the strategy firm *Jump Associates*, has dealt with empathy in his book *Wired to Care* (2009). According to him, the necessity

to develop empathy with people comes from the fact that we live in a world whose citizens are “simultaneously more connected” but they are “further apart”; as a result, “few producers have a clear picture of what life is really like for the people who buy their products” (2009: 46). Then, he maintains that empathy can heal the rift between producers and consumers and have profound effects on companies. According to him, the better would be “to empathize with multiple types of people” (2009: 13). In order to achieve this goal, companies should be curious and interested in the people they affect (2009: 121). Hence, he advises them to recreate the lives of ordinary folks to reflect their potential customers when companies advertise their products (2009: 80).

On the other hand, Martin Lindstrom, one of the most influential authors due to his work on science and marketing, has explored what the concept ‘brand’ really means to people’s brains. Since he assumes that traditional research methods, such as market research or focus groups, are “no longer up to the task of finding out what consumers *really* think” (2009: 18), he supports that the highest chance of succeeding can be achieved “by pinpointing consumers’ reward centres” to make advertising more stimulating (2009: 24). According to him, producers can trigger these brain regions by several ways. For instance, by making the consumer associate the product with the fulfilment of a certain personal image or attitude (2009: 59); what means clients have to think is that *this* product “*can help me to become [someone desirable]*”; or by offering people for the *immediate* gratifying reward (2009: 28). Moreover, he considers that the orbito-frontal cortex can be activated by means of observing smiling individuals or faces (2009: 61). It is as if people would anticipate some reward related to the individual who was in a smiling pose.

Furthermore, Lindstrom points out that in cases of ‘anticipation’ of rewards, dopamine activity in the brain increases (2009: 64). As well, he supports the idea that *emotion* has an enormous influence on decision-making and it is what engages people to a brand (2009: 27). By means of ‘colours’ and ‘sounds’ presented in a congruent way with images, emotions can be triggered, increasing also brand recognition (2009: 262).

On the contrary, Dr. J. Michael Weber from Mercer University (United States) has focused on analysing how people can model the actions of the protagonists of the ads departing from their ability to empathize with them. Weber supports that marketing promotions should be designed primarily to get the attention of customers by presenting them a common problem or a need within a context they are *familiar* with. Then, the actors in the ads should decompose a new manner of resolving the conflict that led to the application of the product (2007: 61). Thus, the product would induce a call to action what would contribute to expanding the motor repertoire of observers (2007: 62). Moreover, thanks to empathy, the observing consumer could internalize the mood exuded by the demonstrator (2007: 61). In short, what Webber supports is that on the bases of empathy, markers can catch viewers’ attention, who can also model positive behaviours associated with the brand.

On the other hand, commercials are an exemplary genre for the development of a model of ‘multimodal metaphor’ (Forceville, 2007: 17). Apart from the mental representations that commercials can draw by means of mirror neurons, announcements are a highly multimodal medium in which creative metaphors can emerge. Basically in

commercials there can be found five modes or channels through which information is conveyed, which are: written language, spoken language, visuals, music and sound (Forceville, 2004-2009). As the cognitive linguist C. Forceville has described, multimodal metaphors have these two terms: the ‘literal’ target (tenor or topic) and the ‘figurative’ source (vehicle or base). Both can be cued in more than one channel of information simultaneously (2007: 16). Furthermore, since commercials unfold in time, target and source need not be represented at the same moment; that is, they can be presented sequentially (2007: 18). The fact that the terms are not rendered in the same mode is what distinguishes multimodal metaphors from verbal ones. Moreover, in these metaphors one or more features of the source must be mappable on the target, “which by this mapping is temporarily transformed” (2007: 17); this forces viewers to understand them in an identity-relation (2007: 19).

Whether how the metaphor is to be construed is to a considerable extent governed by expectations pertaining to the genre. For instance, a crucial genre convention in advertising is that “a positive claim is made for a product or brand” (2007: 20). Thus, there is usually an intention to produce a metaphor which results in “the provision of salient cues to that effect” by the metaphor’s producer (2007: 19). Therefore, there is a supposed authorial intention that *organizes* a certain combination of elements to be understood as a metaphor.

Hence, it seems that by means of mirror neurons and multimodal metaphors viewers can evoke automatically the intended mental images transmitted by the sender, what is aimed to respond positively to the brand message. Thus, both ways appear to

involve the occurrence of unconscious mental spaces that should lead the audience to the good processing of information.

These conjectures are what I will try to investigate in the next section of the paper concerning the four cases of discussion.

IV. Results and Discussion

Group A: car advertising

Case Study 1 Commercial screened on Spanish television for SEAT Altea XL car

Contextualization

The SEAT Altea XL spot dates the year 2009, though it is still shown in 2010 on Spanish television. It has been created by Pepe Colomer and Josep María Basora, Creative Directors of the Atlético International Barcelona agency; and directed by Sébastien Grousset for the Gang productions. In respect to the song, which correlates with the commercial's emotional rhythm, it has been created by the Catalan Studio BSO.

The commercial presents a kind of musical short, with an approximate duration of two minutes and twenty-two seconds. It is a weird and wonderful commercial in which the main theme is that of a monster who gets bigger when you love him.

As many other modern advertisements, it makes use of intertextuality. Its story reminds me of those American TV series and films in which a monster is another member of the family. Moreover, its setting and the family represented are other references that lead me to consider the use of intertextuality in the spot.

Commercial description

The advertisement narrates the story of a family and its monster. At the beginning of the ad, viewers can see how the father and his daughter decide to take from a pet shop a little monster to their home. In the next scene, the daughter and her brother are in the living room trying to relax the new *pet* as he is shaking of fear behind the sofa. The following commercial's images show a series of events in which the audience can notice the monster interacts with the family as if he were another member. For instance, the monster plays the 'hide-and-peek' game with the son in a park.

Meanwhile all these scenes are shown, a male voice-over narrates the following: "se alimenta del amor que le das. Cuanto más amor le des, más crecerá". This spoken information serves to clarify the amazing fact that the viewer has noticed: the monster grows with love. The narrator continues with the following: "si queremos que deje de crecer, deberemos dejar de quererle". And a female voice-over responds to him this: "pero, ¿cómo vamos a dejar de quererle?". Thus, the conflict in the ad is that the monster grows with love and the family cannot stop loving him.

The story continues narrating the many problems the monster has due to his huge dimensions. There is a dramatic scene in which the family is about to depart to somewhere by car. However, there is no place enough inside the vehicle for the monster as he has grown out of the car. Therefore, the monster has to stay alone at home. It is in this moment when a song starts with this lyric: "oh, Brother, no estás solo, Brother. ¡Brother, tú estarás conmigo, Brother!".

The climax of the story arrives when the monster breaks the front door because the family has come back for him. They are in a wonderful new red car which fits their enormous love monster. Thus, finally, the whole family can leave the house together by

car with a great joy. In this time, a female voice-over concludes with the following: “porque ya se sabe lo que pasa con los monstruos, crecen, y crecen, y crecen...”; whereas on the screen is this written information: “Nuevo SEAT Altea XL. La familia al poder” and the brand’s logo.

Multimodal metaphors construal

The SEAT Altea XL spot makes use of four channels via which information is conveyed, which are: music, spoken language, written language and visuals, with special account for size. Because of the combination of different modes in the ad, multimodal metaphors can be identified.

In the next part of the analysis I will study the cues and devices that help to verbalize the following multimodal metaphors:

THE OTHER SON OF THE FAMILY IS A MONSTER [and then, THE SEAT ALTEA XL IS A CAR DESIGNED TO CARE YOUR FAMILY]

The metaphorical similarity between both domains is created first by means of the monster’s behaviour. When the commercial is about the middle and the sequence of events about the family are shown, the monster is presented with them behaving as if he were another member of the family. For instance, he dances with the daughter inside home. Nevertheless, it is the spoken and written information what clearly contributes to equating both terms. In relation to the spoken language, the lyric of the song is a key element in the association of the target and source domains. The song literally says:

“¡Brother, tú estarás conmigo, Brother!”. Hence, the monster is called “Brother”. However, this name is more than a proper name; it is also the clarification of the monster’s family relationship in respect to the girl. Since the daughter is the character in the spot who loves and suffers the most because of him, ‘conmigo’ would then refer to her, and ‘Brother’ would refer to *her brother*. Moreover, in one of the previous scenes the son has also called him “brother”. Therefore, though the monster is mainly represented visually, the target of the metaphor (the other son of the family) is labelled in spoken words.

On the other hand, the voice-overs and the written information at the end of the commercial also contribute to creating a resemblance between both terms. Firstly, a connection can be established between the male voice-over at the beginning of the ad and the final female voice-over. At first, the male narrates about the monster that “cuánto más amor le des, más crecerá”. Then, a female voice-over says “porque ya se sabe lo que pasa con los monstruos, crecen, y crecen, y crecen...”, together with this written information: “la familia al poder”. Therefore, I can deduce that the concept of ‘familia’ is related to ‘monstruos’. And as within a family the only members who can grow up are the children, ‘monstruos’ would then refer to ‘children’, who “crecen, y crecen, y crecen...”. Thus, the biological nature of both entities contributes to equating both domains. Moreover, in the short version of this commercial (<http://www.gangfilms.com/GROUSSET-Sebastien-director-Gang-Films-rub-PARIS-4-7.html>), there is a slight but significant variation in the information provided by the male voice-over narration. When the male voice-over starts narrating the tale, he says: “cuánto más amor le des, más crecerá” and adds this “*Y crece, y crece...*”. Hence, a similar syntactic structure applies in this version to the ‘monster’, as well as to ‘monstruos’ at the end. I can conclude therefore that as the term ‘monstruos’ seems to

be related to ‘children’, the term ‘monster’ should mean ‘another *child*’, and more specifically, a male child, since he was called in the song ‘brother’.

In short, the other family’s son, the target, is presented in terms of the monster, which belongs to the source domain of the multimodal metaphor, rather than the other way round.

On the other hand, as it is thanks to the SEAT Altea XL car that the family, no matter how many members it has, can be together; a new multimodal metaphor can be stated: THE SEAT ALTEA XL IS A CAR DESIGNED TO CARE YOUR FAMILY. The metaphorical relation is created by the visual juxtaposition of the old and the new car which are shown in the ad. Before having the new SEAT Altea XL, there was not space enough inside the car for the second *son*, the monster. Then, the SEAT Altea XL car can keep the family together. Moreover, this written information at the end: “la familia al poder”, which addresses SEAT car, clarifies that it is *this* car and not the old one the vehicle which benefits the whole family. Thus, through this last multimodal metaphor, I can infer that SEAT is *supposedly* pleading for the ‘family’ as the leitmotif for designing its new Altea XL car model.

On the other hand, in this announcement the audience can notice a salient similarity between the monster and the car, which only makes sense as a metaphor, THE SEAT ALTEA XL IS A MONSTER. The fact that this piece of film belongs to the genre of ‘commercials’, and that the commercial is one of SEAT, which is largely made clear via text, considerably helps viewers in their awareness that here the car is

presented in terms of the monster, suggesting THE CAR IS THE MONSTER. Therefore, the viewer cannot but allow target status to the domain to which the product belongs.

On the other hand, both source and target domains are visually represented in the spot; however, they are presented one after the other; though at the end they can be captured in a single frame. This order makes sense in creating and holding the viewers' interest. By first cueing something that turns out to be the source rather than the target, the viewer will supposedly be intrigued by the function of this 'monster' and thereby "may be kept from zapping away" during the commercial "in order to solve this mini-puzzle" (Forceville, 2004-2009).

Although there is no pre-existent similarity between target and source, the devices used in the commercial serve to mark these entities as visually similar. The main feature that is to be mapped is 'big dimensions', which when applying to the car means 'it is really *spacious*'. Thus, the source domain makes salient the aspect of 'size' in the target. That this feature is here something basically *good* is triggered by the advertising convention that "something positive is always claimed for the product" advertised (Forceville, 2004-2009), and it is the reason for rejoicing that now all the family can be together. Thus, the monster's size facilitates the creation of a positive brand image.

After analysing these multimodal metaphors, I can conclude that by means of the monster, viewers can deduce that this people carrier car is really *spacious* so as to keep

the whole family together. 'Family' and 'size' are therefore, the most salient features to appeal to the viewers' interest.

Devices in the commercial that trigger mirror neurons

In the spot, there are two main means by which these brain cells are fired. Firstly, mirror neurons are triggered in the commercial by the empathic connection with viewers. In this sense, the aim of the announcement is to connect the audience with the brand by creating bonds of trust. SEAT presents its new car through an ad based on a family. The members of the family follow the prototypical social conventions; then, the family is composed of a father, a mother, a son and a daughter. Moreover, when the new SEAT Altea XL is presented at the very end of the ad, it is shown that the car driver in the family is the father, which is also a social convention. Furthermore, throughout the whole commercial the mother has a secondary position in relation to her husband. Then, it is the man who interacts the most with the daughter and also, the person who takes the crucial decision of buying a new car. Although it is not explicitly stated who made this decision, thanks to my mirror neurons I could *read* in one of the final scenes the facial gestures of the man and his daughter and I anticipated what would happen later on.

On the other hand, I can deduce due to how their house is, its furniture, the physical appearance of the family members and their hobbies that this family belongs to the Upper-Middle economic class. Nevertheless, this fact does not restrict the extent of possible customers that the ad tries to empathize. People from lower economic positions can also empathize with the brand in case they wanted to have belongings from wealthy

people. For this sort of customers buying the new SEAT Altea XL would also mean buying a status.

As a consequence of all these details in the spot about the family and following the principle that “we all find it easier to connect with other people who are like us” (Patnaik, 2009: 104), I can conclude that the potential customer to whom this ad addresses to is a man in his average age with children, not necessarily belonging to Upper-Middle class. Hence, the spot establishes an empathic connection with this kind of viewers by appealing to their interests, needs and problems, and by presenting a group of characters that seem to be like them and their families. Then, this ad follows a profound piece of advice for business that says that “if you want to create products and services that other people care about, you should [...] start caring about other people’s lives” (Patnaik, 2009: 14). Thus, SEAT in the commercial pretends be interested in the *family*, which is one of the most appreciated values for this sort of customers; and more specifically, SEAT is concerned about family needs related to car space. Hence, SEAT is supposedly more interested in solving the problems of large families than in sales.

At the very end of the spot this motivation is clarified by this written information: “la familia al poder”. The final message that SEAT wants to transmit to its viewers is that we are interested in *you*, male customer with large family. Indeed, a piece of advice for business matters is that marketers have to “convince potential customers that ‘we feel for you’ that our brand truly cares about you”, and this message has to be transmitted in a “believable and meaningful manner” (Olson, 2009). Therefore, though SEAT was more concerned about sales, this company has to transmit the idea that customers are the most important aspect over the rest of values. Consequently, viewers will see now SEAT not just as a company, but as a group of real people who care for the same interests than theirs.

Secondly, mirror neurons are triggered in the ad by appealing to customers' emotions. Our minds constantly form emotional connections. Indeed, we are "wired to connect with and care for others" (Patnaik, 2009: 114). The monster triggers an emotional response on the audience since he needs to be cared. Then, viewers suffer in parallel with the daughter when the monster has to be left behind, and they feel the same joy as well, when the new SEAT Altea appears, solving his problem. Thus, a positive feeling about this car fits in the customers' memory; and then, when they think in the future about this people carrier car, they will relate their memories with concepts such as family, cohesion or joy.

On the other hand, there is another factor that helps to engage viewers emotionally with the brand, which is the last scene of the spot. In this sequence, the monster runs from the house to the SEAT Altea XL car, the parents smile and the children shout of joy. And as "escuchar vocalizaciones de triunfo –risas y gritos exultantes, por ejemplo- activa las mismas áreas motoras que se activan al sonreír" (Warren *et al.*, 2006), the entrance of the SEAT Altea XL would be perceived with the same feeling of happiness by the audience. When viewers imitate the facial gestures of the family, at the same time "las neuronas espejo envían señales a los centros de la emoción ubicados en el sistema límbico del cerebro" and thus, the neuronal activity of this limbic system allows them to "sentir las emociones asociadas con las expresiones faciales observadas" (Iacoboni, 2009: 114). Therefore, when they observe this family smiling and laughing, they will feel happy as well because their mirror neurons will give them the same physical response as if they were smiling too. Thus, in the audience's brain the SEAT Altea XL will be associated with a positive feeling.

Furthermore, the red colour of the car contributes to enhancing viewers emotionally with SEAT. According to Lindstrom, "colors can be powerful in

connecting us emotionally to the brand” (2009: 154). Traditionally, red colouring has been associated with love and care. Thus, this colour triggers viewers’ mirror system through the sense of sight since it connects with their emotions. Furthermore, as “the more emotionally charged” an ad is, “the more vivid it feels to our amygdale”, which helps our hippocampus to hold on to the brand for the long term (Patnaik, 2009: 114); this feature that triggers mirror neurons would also contribute in remembering the brand in an easier way.

In short, in this announcement these brain cells are largely activated by empathy and emotions, which are transmitted through the characters and the pictorial features adhering the car.

Case Study 2 Commercial screened on Spanish television for Volkswagen Touran Traveller car

Contextualization

The Volkswagen (VW) spot for the new Touran Traveller is entitled ‘Magia’ and dates the year 2008. It has been directed by Sébastien Grousset for the Gang productions, as the previous commercial analysed. Its creative idea comes from DDB Barcelona and Tribal DDB agencies.

The advertisement is about a school where a boy insists on saying that his father has magic powers. It is an amusing ad in which viewers do not figure out until the end that the commercial is promoting a ‘Park Assist’ system, a new self-parking technology.

The setting or the pictorial context where the story takes place, may evoke some viewers to generic associations with those American films based on boarding schools, such as the famous movie *Harry Potter*. Hence, the ad makes use of intertextuality.

Commercial description

The spot narrates the story of a kid about eight years old who is in a boarding school. It begins with an image of the boy dressed with the school uniform in the playtime. He is telling his schoolmates the following: “os voy a contar un secreto: ¿sabéis que mi padre puede hacer magia con la mente?”. His friends are sat in a line listening to his words. Afterwards, the kid is shown having a fight with another boy and shouting: “¡yo no soy un mentiroso!” in the very just moment when a woman teacher arrives to break up the

fight. Then, he is taken by her to the staff room to tell the rest of the teachers what he is proclaiming so tightly.

After this scene, a talk with the school's deputy head teacher takes place. He asks the boy this: "¿poderes?", ¿y esto se lo has visto hacer muchas veces?"; and the kid responds: "sí, empezó a hacerlo en junio". In the meantime, he takes some notes and the woman teacher observes concerned their meeting in the distance.

As a consequence of the child's persistence, since he carries on saying the same story about his father to his mates and teachers; he is called to the head teacher's office. The head teacher warns the boy that his father is coming to deal this matter. Therefore, viewers are induced to think in this sequence that the father is going to be informed about his child's lies and then, he himself will punish him.

Nevertheless, the final shot of the commercial consists of a scene in which the teaching staff is inside the head teacher's office looking impressed through the window at how the kid's father parks his car while knotting his tie, without moving or even touching the steering wheel. When this scene is shown, the kid repeats again: "mi padre tiene poderes". Then, a male voice-over clarifies what observers have just seen by this information: "Touran Traveller con Park Assist de serie. Entre otras cosas, aparca solo". And finally, it is shown on the screen written information related to this extraordinary car model and the terms and conditions in case the audience would like to buy this people carrier car.

Multimodal metaphor construal

In this commercial it is possible to identify and construe this multimodal metaphor: PARKING THE VW TOURAN TRAVELLER IS DOING A MAGIC TRICK. I will analyse now the parameters governing this multimodal metaphor.

In respect to the source domain, which I consider to be the last term of the metaphor, is represented in spoken words at first. Although nobody in the ad names what the kid's father does as a 'magic trick', there are several cues that lead me to verbalize this domain in this way. On the one hand, the manner the boy first introduces the matter to his friends. In the first sequence of the ad the child tells his partners this secret: "mi padre hace *magia* con la mente". Therefore, he makes them think that his father is able to do something by using his magic and mental powers. On the other hand, teachers make use of the word "*poderes*" to refer to the father's skill. And in the Gang official webpage (<http://www.thegang.es/V.W.-Touran-Magia-GROUSSET-Sebastien-director-The-Gang-rub-MADRID-4-87-1-vid-1151.html>), there is a slight variation in the information provided by the deputy head during his meeting with the child. He adds this: "poderes como un *mago*", making clear what the father seems to do. Hence, since what the father does appears to be close to what real magicians do, the source domain can be verbalized as 'doing a magic trick'.

On the other hand, observers can notice in the scene where the boy talks with the deputy head that the child's father applies his 'magic trick' to *something* specific. In the sequence both characters are inside the office talking about the father's magic powers. The conversation is the following:

- Teacher: "¿Y esto se lo has visto hacer muchas veces?"
- Kid: "Sí, empezó a hacerlo en junio"

Thus, the demonstrative pronoun “esto” and the direct object pronoun “lo” may support the idea that the child’s father does *something* in particular using his magic powers. Therefore, the target domain can be ambiguously rendered by the spoken information at first. Then, after the meeting, the boy admits this to his friends: “porque yo *lo* he visto con mis ojos”; representing once again the target domain through the verbal mode.

Until this moment, the audience only knows that a kid’s father does *something* which is related to magic and mental powers and that can be figuratively defined as ‘doing a magic trick’. Therefore, it seems that this man is a magician. Hence, by omitting what this *something* consists of, it is created and held the viewers’ interest.

The last part of the advertisement is largely about showing viewers and representing visually the target domain. At the end of the spot, the teaching staff and the boy are inside the head teacher’s office. The head teacher warns the child his father is coming to talk with them. Then, there are long close-ups and medium close-ups which show the father’s car entrance into the boarding school. His car has an amazing technology that allows him to do nothing to park it; indeed, he is screened knotting his tie instead of shunting the car. When the teaching staff is looking impressed this new system, the kid repeats again: “mi padre tiene poderes”, representing once more verbally the source. Hence, in the end the target domain is revealed to be connected with a revolutionary car’s technology that allows the car to park by itself. Thus, I can infer now that the demonstrative and direct object pronouns previously said by the boy and the deputy head during their meeting, were substituting the target ‘parking VW Touran Traveller’. Moreover, the facial gestures of the teaching staff when seeing the car moving alone, especially the head teacher, reminds me of those surprised faces of people when they are seeing a magic trick. Then, this sequence can visually represent both domains of the metaphor.

On the other hand, the target domain is rendered verbally in the final scene when a male voice-over comments the following: “Touran Traveller con Park Assist de serie. Entre otras cosas, aparca solo”. When these last words are pronounced, it is shown on the screen a written description about the Touran Traveller equipment and information related to the car’s sale. However, when the extra equipment ‘Park Assist’ is included in the list, it makes a movement that resembles the one produced by the father’s car when it parks itself. Then, the written utterance ‘Park Assist’ can be considered to represent verbally, as well as visually the target term.

Therefore, the target domain is cued in several channels; it is represented vaguely through spoken language at first and pictorially and verbally in its entirety at the end of the announcement.

In short, this metaphor occurrence in this commercial draws on a combination of language and pictures. The most salient aspect the marketer wants to stress about the new VW Touran Traveller is the astonishing its Park Assist system is. Consequently, the ad equates this car’s technology with something close to magic. Viewers are led therefore, to project the ‘magic’ feature from the source upon the target, which is thereby transformed conceptually.

Devices that trigger mirror neurons

In the advertisement these brain cells are fired differently depending on the sequence. At the beginning of the ad, it is the unusual introduction of the *something* advertised as

well as the empathic connection with viewers what activates them. When viewers first see this commercial, they subconsciously recreate its story in their minds; however, they are not capable of anticipating its end. Words such as “secreto”, “magia”, “mente” or “poderes”, and the pronouns “esto” and “lo”, which do not follow the noun they substitute, result so confuse and vague so as to generate interest in viewers, as they cannot figure out what these terms are referring to. According to Williams (1999), “if you insist that your ads ‘sound right’, you force them to be predictable” and “predictable ads do not surprise Broca’s area of the brain”. He supports that “while a *speaker* uses Broca’s area to arrange his words into understandable sentences, the *listener* uses Broca to anticipate and discount the predictable. When your listener hears only what she has heard before, it’s difficult to keep her attention”. Although Broca’s area has been traditionally associated with language processing, this area is said to be also activated when seeing or imitating an action and able to “anticipate what other are about to say” (1999: 50). Since the ad does not allow Broca’s area to predict or anticipate what is going on (the announcement *surprises* the area), it gets the viewers’ attention.

Furthermore, as observers are puzzled about kid’s story, their mirror neurons may empathize with teachers. Since the theory of the father has not been proved yet, the teaching staff induces viewers to think the kid is lying. Thus, observers supposedly share the same way of thinking than teachers have and then, an empathic connection between them can emerge.

Hence, the first part of the promotion has captured potential consumers’ attention by means of confusion and empathy, what has motivated them to process the information and to focus their attention to the last part of the ad.

The last sequence of the commercial (from second twenty-nine onwards), has other elements that fire mirror system. Basically the empathy, the demonstrative component and the resulting reward expectation, facilitate the triggering of these cells and the turning of viewers into potential customers.

On the one hand, the behaviour of the teaching staff when the new VW Touran Traveller is first presented reinforces viewers' interest in buying this car. When the father enters the school, teachers focus on gazing his car with fascination. As viewers have previously empathized with them, they can behave and feel as if they were them. Then, the car captures their attention in the same way as it does on teachers. Nevertheless, even if the empathic connection with observers would not be established, they would have also fixed their eyes on the car; since in advertising "we will look at what the person we see in an ad is looking at. If they are looking out at us we will simply look back at them and not really anywhere else" (Breeze, 2009). Therefore, teachers would serve to guide observers to what they should pay attention to in any case.

Moreover, teachers' attitude towards the car is transmitted since mirror neurons allow "la comprensión en primera persona de las emociones de los demás" (Rizzolatti and Sinigaglia, 2006: 182). Hence, as a consequence of the fact that "nuestro sistema ideomotor entra en resonancia frente a movimientos faciales ajenos" (2006: 181), it may be produced a "coparticipación empática" that "[orientará sus] conductas" (2006: 183). Thus, the astonishment of the teachers when they observe this unusual way to park a car is transmitted to the audience. Then, viewers would experience the same enthusiasm when they perceive the Park Assist system coming on stream.

Furthermore, the attention to Park Assist technology is increased since the car's colour does not differ from the rest of vehicles' colours in the parking. Although "colors can be very powerful in connecting [viewers] emotionally to the brand" (Lindstrom,

2009: 154), the fact that this car is not distinctive by its colour serves to deduce that what marketer wants the observer to focus on is not its external appearance but its revolutionary technology.

On the other hand, it is peculiar in this sequence the way of presenting this new system. The demonstration of how Park Assist works is shown from familiarity. Rizzolatti and Sinigaglia point out that “cuanto más se asemeja un acto percibido a otro perteneciente al patrimonio motor del observador más tiende a inducir la ejecución del mismo” (2006: 141). Then, the Creative Director has opted for presenting how this car parks itself at the same time that the father knots his tie, which is a very common motor act performed by men. Thus, though to park with Park Assist cannot be perceived similar to the traditional way of parking; this new pattern can be shown instead, in parallel with a frequent male motor act. The demonstrative component within a context male drivers are familiar with, allow the observer to internalize better the new pattern. Moreover, the simplicity with which this new technology is introduced to viewers facilitates to add this new action in the repertoire of performable activities; and then, it encourages them to prove Park Assist and buy the new VW Touran Traveller.

Finally, mirror neurons are fired in this last part of the ad due to the empathic connection established with viewers who could be potential customers of the brand. Following the principle that “the simplest way to have empathy for other people is to be just like them” (Patnaik, 2009: 9), I can conclude to whom this ad addresses to due to the sort of driver shown in this sequence. The new VW Touran Traveller is designed for empathizing with male customers in their average age with family and family responsibilities, such as, the care of their children’s education. Hence, this ad does not create in the end a widespread sense of empathy; rather it focuses on male drivers with family. Moreover, as a consequence of the empathic connection with the kid’s father, as

well as with the teachers' attitude, this sort of viewers could infer in this sequence that if they would buy the new VW Touran Traveller, they would *impress* people. Since the spot appears to suggest that the drivers of this car would *seem* magicians; the potential clients will think that if they have 'Park Assist' system, they can be admired by others. Furthermore, according to Lindstrom "consciously or not, we calculate purchases based on how they might bring us social status" (2009: 64). Therefore, being the owner of this car is supposedly given the person the opportunity to amaze and to be also conceived as belonging to a certain social level that can enjoy this sort of revolutionary technology. Hence, the final message transmitted is that if you buy this car you will take home that popularity of the father's character with you. In this way, the announcement can create a reward expectation in the audience that is 'to surprise people', which should activate the mirror system in a great extent.

From this analysis I can conclude that the key aspects of this commercial that trigger mirror neurons and persuade viewers to buy this car are empathy and motivation. In the end, the audience perceives Park Assist system more special and valuable than what really it is. As Yarrow (2006) notes, drivers still need to "work the accelerator, brakes and clutch" as they normally would when Park Assist is functioning. Thus, it is not "the perfect answer to parking", there are some limitations. Drivers also "must have an indicator on so it knows which side of the road to scan. If the kerb is not straight, the technology can leave them badly parked, while it only works in re-verse; not if they need to shunt forward again". Therefore, the expectation of performing the same way of parking than the father, is not such when viewers are well informed about this technology. In any case, the announcement gets capturing the audience's attention through the combination of its elements and this will be sufficient to convince certain observers to buy the car. Thus, by triggering mirror system, viewers would not only be

receptive to the visual and verbal information in the spot, but also their brain cells would get to light up their reward centres which would be crucial in the purchasing decision-making.

Group B: internet service advertising

Case Study 3 Commercial screened on Spanish television for Vodafone ADSL

Contextualization

According to the official webpage of Vodafone España (<http://www.vodafone.es/particulares/>), the spot “Vodafone ADSL ‘El Abuelo’” dates the year 2009. It has been created by Adrián Ríos, Creative Director of Tapsa Madrid agency.

The advertisement narrates the story of a family that is looking for the lost twin brother of the grandfather throughout the whole Latino America.

Commercial description

The announcement is about a family in search of a very special present for the grandfather: to find his brother. From the very beginning of the ad, a male voice-over narrates this story: “José cumplía noventa años y su hijo decidió que su regalo sería encontrar a su hermano perdido en Sudamérica. Contrató Vodafone ADSL, inmediatamente lo conectó y se pusieron a buscar. La esposa buscó en Uruguay y como no lo encontró, hizo la compra. La hija buscó en Argentina y encontró veinte posibles novios. Y el padre lo encontró en Brasil”.

In the meantime, a series of scenes are shown. In the first shot, the grandfather is presented. He is an old man whose hobby is constructing sailing ships made of paper.

Afterwards, his son appears in the distance in a suspicious way looking at a black and white picture about his father and his twin brother in their childhood. In the photo, they are dressed as if they were taken the Holy Communion. Then, the son hurries back home carrying a red box under his arm in which the audience can clearly read: ‘Vodafone ADSL’. Viewers notice how in just second he gets to connect the internet by inserting the USB connector to the router, which are inside the box.

Afterwards, the rest of the family members are presented while they are looking for the grandfather’s brother on the internet. Firstly, it is introduced the mother, who searches in Uruguay and finds a webpage called “buscauruguayos.com”, which is actually meant for buying women shoes. On the contrary, the daughter makes a search in Argentina and finds on the net many boys with whom to flirt. And finally, the father appears again in the kitchen eating a sandwich in the very just moment when he finds his uncle in Brazil.

The last scene of the spot shows the grandfather sat on the living room sofa and the rest of the family coming to him with a laptop. They switch the lights off, light some candles, and the father connects the ADSL USB to the computer. In this scene it takes place a video conferencing between the grandfather and his twin brother. This old man is wearing a similar sailor suit to the one both brothers worn in the black and white picture. Behind him, there is a refreshment stall with beautiful women in bikini near the beach.

Immediately this sequence, the male voice-over concludes with this: “una familia feliz con Vodafone ADSL [...]”; whereas on the screen it is shown written information related to this particular offer. The final shot of the commercial consists of an image of the family round the grandfather, smiling and pleased to have surprise him in such an exceptional way.

Multimodal metaphor construal

The commercial shows the following multimodal metaphor: USING VODAFONE ADSL IS BEING HAPPY. In relation to the two terms of the metaphor, the target corresponds to ‘using Vodafone ADSL’ and the source to ‘being happy’, as the feeling of happiness is something figurative that serves to exemplify the very great qualities of the product (the literal domain). Both terms are represented in more than one channel simultaneously. In the case of the target, it is represented visually, sonically and verbally. ‘Using Vodafone ADSL’ renders visually in the first place. When the father enters home, he carries a rectangular red box in which it is written the name of the brand. Then, there is a close-up which explicitly shows how he connects the USB connector to the router. Moreover, the voice-over comments: “contrató Vodafone ADSL, inmediatamente lo *conectó* [...]”, clarifying his action. Therefore, in this scene the target is represented both visually and verbally. This performance is repeated at the end of the spot when the father connects the service again in order to establish a video conferencing with his uncle. On the other hand, this domain is represented visually and sonically by means of the rest of the family members interacting with their computers when they search on the internet. For instance, the mother is shown in a scene looking at a webpage on her computer, together with the sound effect produced when she makes the selection. The target domain is also represented in spoken words through the male voice-over. When he talks about what the family searches and finds on the net, he uses the past tense verbs “*buscó*” and “*encontró*”, which have implied the target ‘using Vodafone ADSL’. Thus, the representation of the target domain is highly multimodal as it occurs in three different modes, which are: visuals, language and sound.

The source 'being happy', by contrast, is recognizable thanks to the visual juxtaposition of the family's facial gesture before and after using this service; and also, by means of the voice-over text at the end of the spot. Visual cues are inescapable; the feeling of happiness in the family is perceived by the way in which their facial gesture changes as soon as they use Vodafone ADSL. The father and the grandfather are the most noticeable characters. At the beginning of the commercial, the son is looking with a concerned face at his father, who is very annoyed since his paper sailing ship has resulted defective. Then, their facial gesture totally changes when they find the twin brother thanks to Vodafone ADSL.

The rest of the family members feel the same joy as well when using this service. Nevertheless, Vodafone ADSL provides them different causes to be happy. In the case of the mother, she feels enjoyment when she finds a webpage in which to buy online. In respect to the daughter, she is happy since she has found 'love' on the net. However, these family members also feel joy when the grandfather and his brother get in touch. Thus, for this family using Vodafone ADSL means *happiness*. Furthermore, apart from the very well service Vodafone ADSL is so that to find whatever they required; this service gives them another motive to be happy, which is to strengthen family *closeness*. In the first part of the commercial characters are presented alone, communicating nothing to the others. Nevertheless, thanks to using Vodafone ADSL, they can have a meeting together in the living room to get in contact with the grandfather's brother.

Finally, in the last scene a male voice-over represents both target and source domains verbally by pointing out this information: "una familia feliz con Vodafone ADSL". This means that if a family uses Vodafone ADSL, they will be happy (consequence). Therefore, it is not until the end of the spot when both terms of the multimodal metaphor are presented at the same time.

Hence, I can conclude that by means of the context and the cues provided in the commercial, a resemblance is created between the target and source domains. ‘Using Vodafone ADSL’ and ‘being happy’ belong to different categories, however, the combination of the perceptual and verbal elements, makes them to be represented in such a way that “viewers are forced to understand and experience one of them in terms of the other” (Forceville, 2007: 25). Therefore, the marketer’s intention in the ad is to transmit the idea of ‘happiness’ associated with Vodafone ADSL internet service. Thus, when analysing this commercial I can notice again that “advertising has straightforward purposes” and the bottom line is that it always “makes positive claims about a service” (2007: 17). Then, the feeling of joy of this family helps facilitate the creation of a positive brand image. Hence, Vodafone ADSL in the end turns up to be a very good, cheap and fast way to find happiness at home, as it benefits the whole family.

Devices in the commercial that trigger mirror neurons

Mirror neurons are fired in the advertisement through several ways. Firstly, they are activated because of empathy. As one of the aims of the ad is capturing consumer’s attention by motivating him “to relate to the commercial protagonists and the situations in which they are” (Friedman and Friedman, 1985), this announcement apes how the potential clients of Vodafone ADSL would be. In this way, the company “creates a zone of friendship in which the customer is subconsciously made comfortable to persist in” (Weber, 2007: 62). Thus, the spot recreates the lives of ordinary folks belonging to a family, whose members serve to empathize with distinct types of potential customers. The ad therefore, creates a widespread sense of empathy across a large group of

possible customers. In order to create that empathic connection with the audience, actors simulate to be just like them. This is because the company seeks to serve many different types of people; indeed, Patnaik considers that “the ability to empathize with multiple types of people can be the difference between success and failure over the long term” (2009: 13).

By following these members of these family members as a model, I can deduce the type of customer the announcement is trying to connect with. On the one hand, this company tries to empathize with individuals that still follow the prototypical social conventions. The family in the commercial is composed by a mother, a father, a daughter, a son and a grandfather. Nevertheless, it is the father the character who buys the advertised service (and probably the one who works in the family), and also, the one who finally finds the missing person. Because of these cues, I can deduce that this is a patriarchal family whose most relevant figure is the *father*. Thus, those customers who empathize with this ad should be close to follow similar social conventions. On the other hand, the fact that the family members have not a unique looking style, contributes to amplifying the scope of potential customers. For instance, at the beginning of the ad, the mother is presented dressed in a classic way; she wears a cream blouse with an old-fashion collar. Her daughter, by contrast, shows a modern and even, close to punk style. Hence, the commercial can empathize with people from different fashion styles.

Another way by which viewers' neuronal cells are lighted up is by means of the actions performance related to connecting the service and surfing the internet. This is because “el acontecimiento motor observado comporta una implicación en primera persona por parte del observador que le permite tener una experiencia inmediata de dicho acontecimiento, como si fuera él mismo quien lo realiza” (Rizzolatti and

Sinigaglia, 2006: 137). This fact is incredibly important for customers to learn how to connect the service and what is this meant for. The actions performed by the actors are from different sorts. In the first sequence, the father shows how to connect the service by means of the USB and the router. As it is better that “the practice to be replicated” by viewers be “as simple and rudimentary as possible” (Weber, 2007: 64), the father undergoes the experience of connecting the USB to the router in a very simple and fast way. The following sequences are about how the rest of the family members, including the father, show viewers for what this service is meant for. Thus, they provide three possible reasons to buy Vodafone ADSL, which are: doing online shopping, chatting with people around the world or finding missing love persons, which is the main conflict the ad presents. Thus, “by presenting the common problem and then portraying the physical resolution or application of the product [or service] to fulfill that need, it allows the observer to understand the purpose behind it” (2007: 61). Therefore, through these demonstrations, viewers can fire their mirror system by means of their empathic connection with the protagonists; and then, they can learn how to perform the activities and the purposes that fulfil Vodafone ADSL. Thus, through demonstrations the commercial makes the product tangible to an audience that may, or may not, has had any interaction with it before.

On the other hand, these family members allow the opportunity to transmit the audience during the performance their positive attitude. As I mentioned in the analysis of Case Study 1, mirror neurons send “señales a los centros cerebrales de la emoción que se encuentran en el sistema límbico para hacernos sentir lo mismo que los otros” (Iacoboni, 2009: 120). In this case, a positive feeling about the service fits viewers’ brains by means of action simulation. The smiling faces of the family when surfing the internet, together with the shouts of joy during the video conferencing, may produce an

unconsciously imitation of the protagonists' feeling and this may produce a far more positive overall attitude toward Vodafone ADSL.

The inner imitation of the actions and the mood related to them contributes to “forecasting the expected outcomes that can be achieved” (Wohlschager and Bekkering, 2002). By means of mirror system, viewers' brains can begin to anticipate what having Vodafone ADSL would be like; and the possibility of getting things in such immediate way, makes viewers feel emotionally exited and contributes to shortening the time required to decide if to buy Vodafone ADSL. In this way, an experiment conducted by Princeton University psychologists demonstrated that when people are forced to decide between short-term immediate gratification and delayed rewards, they tend to choose the first option (Lindstrom, 2009: 27). Hence, the opportunity of getting such a great things (e.g. love, contacting people around the world, etc.) in a very short time, would make viewers highly susceptible of buying the service.

In conclusion, Vodafone ADSL service and its multiple possibilities fix in viewers' memory and trigger their mirror system thanks to empathy and emotion. On the one hand, customers relate themselves with the protagonists as they empathize with their interests and motivations. Then, as a result of the empathic response, they can learn how to use Vodafone ADSL. The different demonstrations performed by the family members decompose new manners of resolving things, such as how to shop from home; and lead observers to understand during the observation the purpose behind the service. Moreover, the way in which these demonstrations are performed contribute to transmitting a positive mood that results in reward expectations. Hence, thanks to these

devices Vodafone ADSL is finally conceived by the audience as a primordial service to have at home.

Case Study 4 Commercial screened on Spanish television for Vodafone mobile broadband internet

Contextualization

This spot called ‘Anacoreta’ was first shown on Spanish television at the end of November 2009. It has been created by Adrián Ríos, Creative Director of Tapsa Madrid agency, as the commercial previously analysed.

It narrates the story of a young man who comes back home after a long period living in India; once he has arrived, his father shows him how to surf the internet with Vodafone mobile broadband.

Commercial description

The advertisement begins with a young man who explains in voice-over narration the following: “después de veinte años buscando respuestas, me volví a casa”. Due to his physical appearance, as well as his behaviour, I can deduce that this man has lived as a *Sadhu* during this time. According to Hartsuiker (1993), Sadhus are the “holy men” of India. They are mystics or yogis who are considered the representatives of gods, “sometimes even worshipped as god themselves”. This man wears ochre-coloured clothing, which for Sadhus means renunciation; moreover he is non-shaven and wears his hair in thick locks. He is also presented to viewers performing Yogic meditation in a temple; and thus, as Sadhus, he seems to live apart from society to focus on his own spiritual practice.

In the next sequence of the announcement, the father is introduced to viewers. He is about sixty years old; however, he keeps himself looking very young and has a modern style. During this scene it takes place the surprising encounter between father and son. After this, the father decides to connect the internet for him to be caught up on the latest events happened during his absence.

Afterwards, the Sadhu is screened sat in a Lotus position with a laptop on his legs on a street. He is shouting very excited: “¡ha caído el Muro de Berlín!”, as if it was something totally new and unknown for people. In the following scene, he is proclaiming very enthused from the high of a lifeguard stand: ¡campeones de Europa!”. When he realizes he is very excited, he starts the Om Shanti deep meditation to restrain himself.

Then, there is a sequence in which the Sadhu and his father are inside home surfing the internet. Several webpages are shown downloading from his computer and after this, a close-up of the mobile broadband wireless router and its USB connector. In the mean time, a male voice-over comments this: “Vodafone lanza ‘Internet Contigo’, el primer internet móvil, sin límite de descarga, con el que navegas a toda velocidad por sólo 39€ al mes. Contrátalo y llévate esta Base WiFi por 9€”.

Finally, the last sequence of the commercial consists of a scene in which the young man is getting off a bus to meet up with his old Hindu friends. He tells in voice-over narration this: “ya actualizado, decidí volver”. In the scene two Sadhus are waiting for him in the bus stop. Viewers can notice the visible modern-looking style he has now, which contrasts with his friends. The other Sadhus are still dressed in a minimum of cloth, with long beards, matted hair, and colours painted in their face. Just after he meets up with his friends, he announces in a very sad mood, with his hands in Namaste position that “Michael ha muerto”. As it can be supposed, the other two men are

confused as they do not know to whom he is referring to by 'Michael'. Then, the spot comes back to the brand. The male voice-over points out the following: "somos como somos porque tú eres como eres", at the time that on the screen it is shown the Vodafone's logo.

Multimodal metaphor construal

I can infer from the visual, verbal and musical cues of the spot the following multimodal metaphor: TO SURF THE NET IS TO CATCH UP. I will analyse first the literal target term that is 'to surf the net'. This domain is largely represented by the modes of visuals and spoken language. As soon as the father meets up with his son, he connects the internet. There is a close-up in this sequence that clearly shows how the USB connector has to be connected to the router. Meanwhile, the son waits heartily the moment to surf the net at the same time he touches with admiration the laptop screen. Then, the father says to him: "anda, ponte al día". The imperative "ponte", together with the visual scenario of this scene, can be considered to suggest visually and verbally the target in an implicit way; as these cues help understand viewers that the son is about to surf the internet.

Afterwards, two consecutive scenes show visually how the young Sadhu is surfing the net. The setting changes from a street to a beach, but in both contexts he is presented with a laptop on his legs finding out about new things on the internet. Therefore, these scenes convey visually this metaphorical domain, and also they serve to reinforce the 'mobile' feature of the service advertised. Moreover, at the end of the beach sequence, a male voice-over starts narrating this: "Vodafone lanza 'Internet

Contigo’, el primer internet móvil, sin límite de descarga, con el que navegas a toda velocidad [...]’”. This verbal text labels verbally the target, especially by the term “navegas”, which is the Spanish translation of ‘to surf’ the net.

At the end of the commentary, the target is visually shown in its entirety. In the sequence, the father and his son are shown sat one in front of the other surfing the net inside home. Then, there is a close-up of the screen of the son’s laptop where the audience can perceive how websites are downloaded very quickly with this service. After this, it is shown a close-up of the router connected to the USB connector and behind them, the hands of the father and his son pressing energetically the buttons of the keyboard. Therefore, this sequence does not only signal visually the target, it also highlights the ‘high-speed’ quality of the internet service.

On the other hand, the ‘figurative’ source term ‘to catch up’ is represented in three different modes, which are: visuals, spoken language and music. Firstly, it is clearly perceived by means of the considerable difference in style between father and son when the latter comes back home. This is probably because of the fact that the father has internet service. Moreover, when this man is about to connect the router he tells his son: “anda, ponte al día”. Thus, in this sequence this domain is cued by verbal and visual means.

Afterwards, the following events show the manner in which the Sadhu catches up on the happenings from the latest years. The events this man finds out are ordered chronologically. In this way, he knows first that “ha caído el Muro de Berlín”, which took place in 1989; then, he shouts “¡campeones de Europa!”, which refers to 2008, when the Spanish football team won Germany in the Eurocup. And in the last sequence of the spot, he is surprised when telling his Hindu friends Michael Jackson has died.

Indeed, Jackson died on June and the ad was first shown on November; therefore this last happening at the end of the commercial still conveys verbally the source as it is not *really* new for the audience from that time. Moreover, the fact that in this scene the Hindus do not know to whom he is referring to, helps facilitate the contrast between them and an individual who has been caught up on the latest events. Furthermore, his surprise when knowing all these events for the first time reinforces the idea that he was very out of date and also suggests visually the source domain.

On the other hand, the musical theme of the ad is in accordance with his catching up. At first it sounds as devotional music and then, it turns into modern Hindi music, similar to the sound track of Bollywood films. They are a kind of Hindi movies, generally musicals, which are becoming very popular world wide. The change in rhythm occurs in the very just moment when the father connects the USB connector to the router for the first time for his son to be caught up; what means music is another information-carrying channel through which the source is rendered.

Finally, the last sequence of the commercial shows visually and verbally the result of being caught up. The young Sadhu tells in voice-over narration this: “ya actualizado, decidí volver”. Therefore, as the utterance ‘ya actualizado’ can be translated in English as ‘once I was caught up’, this information can also represent verbally the source. Moreover, when he gets off the bus to meet up with his old friends, he shows a new style. He has shaved his long beard and has put his hair back in a ponytail. Furthermore, he wears now a fashion jacket with a foulard in harmony with it, what makes him the looking of a man of fashion in new-style. Thus, as a consequence of having surfed the net with Vodafone mobile broadband internet, this man has turned into a modern man who is caught up on the latest happenings and also, on the new

trends. Hence, the visual juxtaposition between him and his friends labels the source domain.

In the end the ‘Sadhus’ are just a cliché with which the commercial plays with to reveal that to surf the net means not to live and know the same as they do. Then, they reinforce primarily by their style and their lack of information, the very great advantages of buying this service. Hence, the viewers can conclude that if they have Vodafone mobile broadband internet and surf the net, they can be caught up on the latest events and fashion trends.

Devices in the commercial that trigger mirror neurons

The beginning of the ad shows a young Sadhu with a unique physical appearance and lifestyle. Only in the case that the Creative Director was trying to catch the attention of new potential Hindu customers, the way to depict him would make difficult for viewers to empathize with him at first; instead, the audience’s brain cells are activated during this scene as a consequence of the fact that they cannot predict what is going on, neither the kind of product or service that will be advertised.

Then, when his father opens the door to meet up with him, viewers’ mirror neurons can *read* his facial gesture that reveals them what he feels about him. Basically his face shows a sentiment of astonishment. As probably observers have felt the same when they have seen the Sadhu for the first time, an empathic response would arise.

According to Patnaik, “there is a deep-seated biological reason for why we connect more easily with people like ourselves” (2009: 72). Thus, as observers would share a feature with the father, they could empathize with him.

Once the ad gets the viewers’ attention by means of empathy, there is the time for demonstrating them how to connect the service. A close-up shows how in just a second the father connects the USB connector to the router. Viewers’ mirror neurons light up when they watch him perform this action and allow them to replicate in their heads what they observe (Patnaik, 2009: 95). Hence, his demonstration would lead them to an unconscious execution and would enable learning by modelling. Moreover, the simplicity and speed with which he connects the internet encourages viewers to buy the product. Furthermore, the fact that this man is about sixty years old serves to transmit the idea that *everyone* can connect the net.

On the other hand, though the audience has mainly empathized with the father during this sequence, what has allowed them to internalize the way to connect the product; they can also empathize with his son. Those who are unable to make head nor tail of how new technologies work would be the ones who may empathize with him.

By means of the kind of actors the audience has empathized with, I can conclude who can be the potential customers of this service. This ad is addressing viewers from a certain age who would like to be well-informed and have modern look, but also viewers who are not very familiar with new technologies. Then, though “brands need to connect with many kinds of people” (Patnaik, 2009: 13), the commercial has opted for considering empathy for no more than two types of potential customers.

In the following scenes, the audience who has empathized with the son can feel the same enthusiasm he expresses. For instance, when he proclaims the Fall of the Berlin Wall. Although this sequence and the next one depict him as an almost laughing

stock, viewers would just feel as if they *were* the actor, interpreting and understanding only what he feels. This means that though their conscious thought would tell them they should buy the product in order not to look like a fool; their mirror system would only send them the emotional information on the part of the Sadhu, which is mainly positive.

On the other hand, the next sequence demonstrates the ease with which the Sadhu has learnt to surf the net. Since viewers have empathized with him, they will feel as if they were him and would have also learnt to surf the internet in such fast time. Therefore, this scene would lead them to expect to learn it with the same ease as the son does. Moreover, as observers can notice in this scene, mother's presence is almost non-existent. She stays in the background of the shot, as in the second sequence of the ad. Thus, I can deduce she is not one of the characters with whom the marketer wants viewers to relate themselves.

Finally, the last sequence triggers mirror system since it creates a reward expectation in the audience's brain. In this scene, the young Sadhu gets off the bus to meet up with his old Hindu friends. He has a significant modern-looking style that contrasts with theirs. As audience has established an empathic connection with him and then, they feel as if they were him; in consequence, they could think that this service may *become* them fashion people. Therefore, the last image of the young Sadhu contributes to making appealing internet for viewers. It is as if the commercial would be selling an image or an attitude, instead of just an internet service. Furthermore, since purchasing decisions are driven by dopamine's effects, and "dopamine activity in the brain increases in anticipation of many different types of rewards" (Lindstrom, 2009: 64); viewers' brain cells would release dopamine when they would anticipate this 'reward', what would be central in deciding to buy the service.

The final voice-over text at the end of this sequence helps blur the line between the audience and the Vodafone's company, strengthening their empathic connection. Literally the voice-over says: "somos como somos porque tú eres como eres". This means that 'Vodafone *cares* about the audience'. This empathic message gives the impression that the brand *depends on* viewers, who are the potential customers, and it is mainly meant for satisfying them with their internet service. Since Patnaik supports, "if you want people to be interested in you, you should be genuinely interested in other people"; as "it is just human nature to be interested in people who are interested in you" (2009: 13). Then, this announcement simulates being interested in non-prototypical net users in order for them to be interested in the company. At the time that the male voice-over makes this commentary, it is shown on the screen the Vodafone's logo with a red ochre colour background. Throughout the whole spot the colouring motif has been perceptible. The announcement has shown a red ochre colour, especially visible in the Sadhus' clothing. According to Lindstrom, this fact would increase brand recognition and would connect viewers emotionally to the service (2009: 155). Moreover, the fact that along the commercial sound and vision have been combined in a congruent way, would also contribute to emotionally engaging viewers with the brand and to long-term memory encoding (2009: 162).

Thus, in the end viewers can have come to the conclusion that there is no matter who you are, there is a chance for everybody, even for a man about sixty years old or a Sadhu, to learn how to use new technologies; and, in consequence, to be a person fully abreast of the current events and latest trends in style. Hence, the ad has succeeded in making the internet tangible to an audience that has never had any interaction with it nor

its precise use. As Lindstrom mentions, consumers enjoy watching and empathizing with people like themselves (2009: 188) and then, “they respond favourably to ‘real’ or ‘ordinary’ people in TV ads” (2009: 189). The Creative Director has understood what these kinds of customers value and which are their possible insecurities in order to connect with them. According to Lindstrom,

More and more companies will go out of their way to play on our fears and insecurities about ourselves, to make us think we are not good enough, that if we do not buy their product, we will somehow be missing out (2009: 200).

Fear exerts an extremely powerful effect on viewers’ brains. Indeed, “when fear-based advertising plays less on our generalized anxieties and more on our insecurities about ourselves, it can be one of the most persuasive – and memorable – types of advertising out there” (2009: 199). The possible insecurities of these protagonists have to do so much with social appearance and status. Once, observers relate themselves with the protagonists and notice their own faults, they can conclude that this service would be the faster solution to solve them. Hence, the commercial has succeeded in creating different reward expectations in the brains of ‘unusual’ customers of internet service, expanding the scope of potential clients of the brand. And therefore, the activity in the audience’s brain areas concerned with reward and empathy is what may lead this ad towards success.

V. Conclusion

In this paper I have tried to provide a new perspective of Spanish television commercials, with special attention to the neuronal and metaphoric processes through which information is conveyed. Then, I have focused my dissertation on a dual study of multimodal metaphors and mirror neurons activation's devices applied to four television advertisements.

In respect to the creative metaphors that occur in these spots, the main purpose of my analysis has been to investigate what forms multimodal metaphors can assume. It seems to be possible to identify a number of parameters that are pertinent in the study of these metaphors, as well as to present some tendencies. The first characteristic I have found is that though the announcements usually draw on a combination of language, pictures, music and non-verbal sound; the principal channels of information that convey the metaphors are language and visuals. Moreover, advertisements from Group B are used to cue largely the source by visual juxtaposition. From the whole cases studied, the only metaphorical term that has not been represented visually is the target 'the other son of the family' (Case Study 1, first multimodal metaphor); instead, it is only cued verbally. Another characteristic is that the features mapped from source to target are always positive; for instance, 'big dimensions' (Case Study 1, third metaphor) or 'happiness' (Case Study 3). Then, every meaningful element in these commercials that is not the product itself somehow helps facilitate the creation of a positive brand image. Another tendency I have found in metaphors is that the target domain often coincides with the product or service advertised or at least, has some relation with it. Nevertheless, the source term frequently has connection with the character(s) of the ad. For instance,

in Case Study 2 the target ‘parking with VW Touran Traveller’ has relation with the technology of the car advertised; however, the source ‘doing a magic trick’ refers to what the kid’s father seems to do.

On the other hand, I have found different patterns depending on which group the commercials belong to in respect to the metaphorical term that is represented first. Group A follows the tendency to cue firstly the source domain, which appears before the target. This reversed order can be due to the fact that advertisers need to do whatever they can to keep viewers from zapping away during commercials. Thus, in order to surprise viewers, they would present the source term, which *comment* on the *topic*, before the topic is actually identified. Or it can be because of the fact that marketers would want to highlight the product advertised (the ‘what’). In this way, the target terms ‘the SEAT Altea XL’ and ‘parking the VW Toruan Traveller’ from Group A, are not shown pictorially in their entirety until the very end of the spots. However, ads belonging to Group B tend to cue first the target term, which refers to the service. It could be as a consequence of the fact that advertisers would want to stress more what the service is meant for (the ‘what for’) than what the proper service advertised is. In this way, they are used to present the service they announce by close-ups that clearly show viewers what is it about and how it can be connected. Hence, it seems to be a connection in the metaphors analysed between the subject matter and the metaphorical domain that is cued first.

The study of the devices that trigger mirror neurons appears to demonstrate that these brain cells interfere in the way the viewer receives the message, empathizes with the brand and even, feels the product. Moreover, the fourth cases analysed seem to show

similar ways of activation. Firstly, mirror neurons can be activated by means of empathy. By appealing to the viewers' interests, needs or problems, commercials create bonds of trust with them. The ultimate aim usually is to become those viewers into potential customers of the brand. Thus, the announcements are used to aim at transmitting a message similar to 'we care about *you*'. Moreover, though it would be better to create a widespread sense of empathy (Patnaik, 2009: 8), the tendency in these announcements has been to empathize with male customers. Then, women presence has been almost non-existent in the spots. Although this fact could be considered socially unacceptable, marketers have not stated this explicitly. Hence, it has to be considered as a mere nuance that I have been inferred by means of my neuronal cells. On the other hand, the device of empathizing with potential customers is reinforced in some announcements by the use of final empathic messages that appeal both to the brand and the audience. For instance, Case Study 1 comments at the end: "la familia al poder"; or Case Study 4 points out: "somos como somos porque tú eres como eres". These messages have the objective to blur the line between producers and consumers.

Once the empathic connection with observers is created, spots tend to show a demonstration about how the product or the service advertised works. During the demonstration, viewers can internally replay the actions observed before acting themselves; what makes the service advertised tangible to the audience and helps facilitate the understanding of the purpose behind it. For instance, actors from Group B are used to show how the internet service has to be connected and how they surf the internet.

In parallel to establishing an empathic connection with viewers, there is also the device of appealing viewers' emotions. It appears that the objective in these ads is to transmit a positive feeling about the product advertised; furthermore, it may result easy

for viewers to remember a brand when an emotive response is transmitted. Commercials seem to trigger emotional reactions by presenting enjoyable scenes in which characters are smiling or even, shouting of joy. In those cases, the limbic system of the brain allows viewers to feel the same emotions. For instance, in the final sequence of Case Study 2 viewers could feel the same fascination than teachers when seeing this revolutionary car parking by itself. Emotional responses seem to be also achieved by presenting scenes where the protagonists manifest juxtaposed facial gestures, which are directly related to the product advertised. For instance, when actors in Case Study 3 are surfing the net with Vodafone ADSL their facial expression totally changes, expressing happiness. The same occurs in Case Study 4; in this announcement the Sadhu transmits a very positive mood when he finds out about new things on the net.

The positive mood associated with the brand together with the demonstrative component can also produce the activation of the reward centres. This system lights up when the audience forecasts certain expected outcomes that should be achieved with the product; for instance, ‘to surprise people’ (Case Study 2) or ‘to become a fashion person’ (Case Study 4). Moreover, when the audience anticipates a reward, the brain cells release dopamine what gives viewers a sense of pleasure and well-being (Lindstrom, 2009: 63). In consequence, the product seems appealing to them and since viewers usually expect an immediate gratification, they are open to buy it.

Another device to trigger these brain cells that has not been discussed yet is to surprise Broca’s area of the brain. When viewers cannot predict what is going on in the ad or what is going to be advertised, this area lights up and facilitates they can keep the attention on the announcement. Hence, this is another way by which the commercials can get the interest of the audience.

In short, thanks to mirror neurons viewers seem to be receptive to the visual and verbal information, which is processed at a level that evokes learning. Among the devices analysed that trigger mirror neurons, commercials have made largely use of empathy. By means of establishing empathic connections, marketers can highlight those features about the brand they would like to be remembered by the audience.

In this paper I have attempted to identify some tendencies in respect to multimodal metaphors and devices that may trigger mirror neurons. Nevertheless, they should require further examination in more case studies and/or empirical testing. Thus, I recommend expanding my repertoire of cases studied. Furthermore, in relation to multimodal metaphors, I would suggest focusing only on a certain sort of product or service in order to inventory the resulting multimodal metaphors to evaluate any possible correlation. For instance, it can be assessed if some metaphorical source domain is recurrent in promoting the product. Then, the data could fit for a cross-cultural study. On the other hand, I would also suggest proving my hypotheses about brain activations associated with mirror neurons. For instance, one could evaluate the same data in a group of people using fMRI brain imaging to test if the results are analogous with my conclusions. Although the better would be subjects from my own cultural community who have not watched these advertisements before, it will be difficult to find them, as these spots have been already shown on Spanish TV. Then, an option could be to select people from other countries where these announcements have not been screened on their television, and show them the ads translated into their own language. The researcher that would carry this study should anticipate any potential

cross-cultural misinterpretation in order to prevent it from occurring. Thus, though it would be tricky to implement my research using the same commercials, I would like this theoretical model I am offering in this paper to be put into practice using other announcements.

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