

Multimodal metaphor and metonymy in advertising

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MULTIMODAL METAPHOR AND METONYMY IN ADVERTISING: A CORPUS-BASED ACCOUNT

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This paper offers the first large-scale study of a multimodal corpus of 210 advertisements. First, the reader is presented with a description of the corpus in terms of the distribution of conceptual operations (for the purposes of this work, metaphor and metonymy) and use of modal cues. Subsequently, the weight of mode and marketing strategy to trigger more or less amounts of conceptual complexity is analysed. This corpus-based survey is complemented with the qualitative analysis of three novel metaphor-metonymy interactions that stem from the data and that have not yet been surveyed in multimodal use. The results show that metaphonymy (a metaphor-metonymy compound) is the most frequent conceptual operation in the corpus; that there is a significant effect of the use of modes in the activation of different amounts of conceptual complexity; and that the type of advertised product and the marketing strategy has no significant effect on the number and complexity of conceptual mappings in the advertisement.

Keywords: *advertising, metaphor, metonymy, multimodality.*

1. INTRODUCTION

Research on multimodal metaphor and metonymy has been, to date, supported by the qualitative analysis of case studies (cf. Forceville and Urios-Aparisi 2009 and references therein). Whereas these studies shed significant light on the workings of these two figures of thought at the micro-level (i.e., an advertisement, a commercial, or any other kind of multimodal environment), the study of isolated examples may carry evident shortages when it comes to make generalisations about the nature and characteristics of these two tropes in multimodal use. Even though multimodal metaphors are defined as those “whose source and target are each represented exclusively or predominantly in different modes” (Forceville 2009a: 24), little has been done to determine what are the specific modes involved, and if there is a preference of one mode over another to render the conceptual source or target domain. Likewise, the focus on metaphor in advertising has eclipsed the exploration of other operations in multimodal use, such as metonymy (with the exception of Forceville 2009b and Villacañas and White 2013) or metaphor-metonymy combinations (except Hidalgo and Kraljevic 2011, Pérez-Sobrino 2013, 2016, and Urios-Aparisi 2009).

In the spirit of complying with this essential necessity in multimodal studies, in this paper I make the case for a corpus-based investigation of multimodal metonymy and metaphor in the specific context of advertising. This study has a twofold objective: (1) it explores the distribution of metaphor and metonymy in a representative corpus of 210 real advertisements, and (2) it aims to know whether there is a significant relationship between

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conceptual operations and other advertising variables (such as the use of modal cues and/or the explicit representation of the product) to produce more or less complex persuasive messages.

In order to carry out this study, I have formulated four specific research questions that have both a descriptive (RQ 1-2) and an explanatory dimension (RQ 3-4).

RQ 1. What is the distribution of multimodal metaphor and metonymy (and if it is the case, their patterns of interaction) in the corpus?

RQ 2. What are the modes chosen to represent conceptual operations and the advertised product?

RQ 3. Is the choice of one mode over another more likely to trigger different amounts of conceptual complexity?

RQ 4. Is the marketing strategy underlying the promotion of a product more or less likely to trigger different amounts of conceptual complexity?

This work demonstrates that many interesting cognitive and statistical enquiries can be exclusively dealt with by looking at a representative corpus of real multimodal data. As the reader may see in Section 2, I have annotated 210 advertisements for (a) conceptual operations, (b) use of modal cues for representing the product, and the source and target domains, and (c) type of advertised product. I report on the results of the corpus survey in two phases. In Section 3 I address the composition of the corpus by showing the frequencies of occurrence of each conceptual operation (3.1), the use of modal cues (3.2), the likelihood of one mode over another to correlate with different conceptual operations (3.3), and the likelihood of a marketing strategy to trigger different amounts of conceptual complexity in terms of conceptual operations (3.4). The careful consideration of the data yields novel patterns of interaction between metaphor and metonymy that have not yet been surveyed in multimodal studies. Hence, I devote Section 4 to the illustration a sample of these interactional patterns in the light of three examples retrieved from the corpus. This paper closes in Section 5 with a summary of the main proposals of this work and a suggestion of lines of further research. This may include, but are not limited to, the quantitative study of conceptual complexity, its effect on speed of comprehension, depth of processing, perceived appeal of the advertisement, arousing of positive or negative emotions toward the message, and whether the linguistic-cultural background of the viewer leads to significant variations across these variables.

This is a pioneering research work for three reasons: (1) it is the first broad-scale corpus-based multimodal metaphor study, given that multimodal metaphor studies are usually limited to the detailed examination of few case studies; (2) this work also accounts for the presence of multimodal metaphor but also of metonymy, and additional conceptual complexes arising from the dynamic interplay of these two tropes; and (3) on the basis of corpus data, the present account deals with the nature, entrenchment, and defining traits of conceptual operations in advertising, while analysing the weight of variables (such as product type and modal cue) that may determine the amount of conceptual complexity required to communicate in advertising. Therefore, this is the first research work in offering statistical correlations between the conceptual, discursive, and communicative dimensions of multimodal metaphor in advertising.

2. CORPUS AND METHODOLOGY

2.1 Corpus selection

This corpus-based survey draws from a collection of 210 advertisements containing figurative meaning. These have been retrieved from several advertising databases (www.coloribus.com, www.adsoftheworld.com, www.advertolog.com, www.greenwashingindex.com) and simple searches in Google Images. We have established the following protocol to minimise the analyst's weight in the retrieval of advertisements from the databases mentioned above.

In order to ensure the *diversity* of the corpus, we have followed a mainstream classification of products in marketing. *Product type* is an influential factor in determining the effectiveness of metaphor advertising and, by extension, of the rest of cognitive operations and conceptual complexes here studied. In this spirit, we relied on the criterion of *tangibility*² (Kotler and Armstrong 1997), whereby products have been traditionally subdivided into physical goods (i.e. a product whose purchase results in the ownership of something) and services (i.e. activities or benefits that are offered for sale). Regarding the categorization of goods, Copeland (1924 [1978]: 129) further unfolded physical goods into three categories based on "consumers' buying habits" (in terms of invested time and cognitive effort in the purchasing decision) and "patronage motives" (i.e. the marketing strategy steering the promotion of a product). The three product types are as follows:

(a) *Convenience goods* (low priced goods that have widespread distribution and are generally bought with little planning and low shopping effort, e.g. bread, cereal, and magazines)

(b) *Shopping goods* (less frequently bought items that involve more planning and comparison that can only be found in fewer outlets, e.g., appliances, furniture, and clothing)

(c) *Specialty products* (high priced commodities bought on a strong a brand-oriented basis, e.g., diamonds and luxury cars).

A fourth complementary category (Perreault and McCarthy, 2004) comprises (d) *unsought goods* (i.e., items lacking of an immediate or specific necessity that require highly appealing and shocking advertising techniques to attract attention, e.g. encyclopaedias, fire extinguishers and newest technological gadgets).

In turn, services can be further broken down into two broad subcategories according to the nature of the service (Bhattacharjee 2006: 83):

(e) *Tangible actions* (that is, services directly targeting people or their material possessions, e.g. health care, laundry, etc.)

(f) *Intangible actions* (i.e. services focusing on people's minds, e.g. advertising/PR, arts and entertainment, etc.)

I have set up a separate category of (g) *NGO and charities* because they have a comparable impact on the public sphere (although this type of advertising is not aimed at giving a positive image of a product or service but rather at denouncing an unfair or potentially dangerous situation).

Table 1 summarises the distribution of the corpus of 210 advertisements according to the type of product (30 advertisements per category). This classification not only satisfactorily bears in mind the differences between goods and services, but it also allows the researcher to establish correlation patterns between the figurative load in the advertisement and the consumer's expected cognitive effort and buying habits.

² The perspective adopted in this paper is that it is not possible to draw a clear line between the traditional distinction of hedonic vs. utilitarian products (cf. Chang and Ten 2013) because the boundaries might depend on the location and professional status of the customer (e.g. a hi-fi camera might be a hedonic product for someone living in a developing country, but it will be considered utilitarian for a Dutch journalist). Moreover, this distinction does not address in detail the differences between service and product, a core aspect about which significant differences in terms of conceptual complexity can be expected.

	<i>N</i>
Goods	120
<i>Convenience</i>	30
<i>Shopping</i>	30
<i>Specialty</i>	30
<i>Unsought</i>	30
Services	60
<i>Tangible</i>	30
<i>Intangible</i>	30
NGO, charities, governmental	30
TOTAL	210

Table 1. *Distribution of advertisements extracted per product category*

Since the study of literal language falls out of the scope of this paper, I only retrieved those advertisements rendering any kind of figurative language. Therefore, the fact that I pre-selected advertisements in this way shall not blur the results of the analysis given that this study aims exclusively at making general observations about different degrees of conceptual complexity rendered through metaphor and metonymy³. Nonetheless, in order to maximise the *representativity* of the corpus we exclusively selected each third advertisement of those initially found per product type. That meant that 90 advertisements had to be gathered per product category, and then each third, sixth, ninth, and so on, were selected to ensure that 30 advertisements per each of the seven product categories (thus making up a corpus of 210 advertisements) would escape the author's selection bias. In consequence, the researcher is prevented from having any sort of influence on the suitability of the advertisements selected for this study.

2.2. Metaphor/metonymy identification and labelling

Although the approach of the ensuing analysis is usage-based one, introspection and argumentation play a crucial role to characterise the conceptual operations found in naturally occurring data. This should not come as surprise, as metonymic and metaphoric-related images are not yet readily identifiable by means of automatised corpus searches. Moreover, there is still no reliable procedure to detect and label conceptual operations in multimodal settings. Even though these drawbacks clearly steer the analyst to a manual and intuitive handling of the data, some methodological decisions are in order. In this regard, Forceville (1996) spells out a method for multimodal metaphor analysis, which has been expanded by the specialists involved in the project Vismet (www.vismet.org) to include multimodal metaphor identification. I present here my own proposal which, while highly based on Forceville's method, has been tweaked to include metonymy identification, characterisation, and analysis.

I first singled out the advertised product or brand, since they tend to coincide with the

³ All in all, the reader might find relevant that literal advertisements were very rarely encountered (only in two occasions). Further research should put the results reported in this paper in comparison and contrast with the use of literal language in advertising in order to draw more general observations about the use of verbal and non-verbal meaning construction processes (figurative and non-figurative) in this genre.

target domain of the conceptual operation involved⁴. Subsequently, I explored carefully the surrounding verbopictorial context for possible source domains that are mapped onto the target domains (or products) identified in the previous stage. I then looked into the bulk of work on multimodal metaphor (Forceville and Urios-Aparisi, 2009), multimodal metonymy (Forceville 2009b, Villacañas and White 2013), and multimodal metaphor-metonymy combinations (cf. Hidalgo and Kraljevic 2011, Pérez-Sobrino 2013, 2016, Urios-Aparisi 2009) to accommodate the conceptual operations identified and labelled in the previous steps. The figurative patterns that do not fit in any of the existing accounts mentioned above are reanalysed in order to look for alternative conceptual patterns not surveyed in the existent literature yet.

For the sake of practicality, A IS (LIKE) B relationships between what the advert showed and what the advert conveyed were regarded as metaphor, and any A IS RELATED TO B as metonymy. If several elements could relate to the same broader item, I annotated it as (multiple-source)-in target metonymy, a sub-type of metonymy (see the discussion for Example 1). In turn, if an element was related to another and then to another, I coded it as a chain of metonymies. When an A IS RELATED TO B relationship supported an A IS (LIKE) B relationship, I labelled it metaphonymy (see the analysis of Example 2). Finally, if I found more than one metaphor at play, I annotated it as a metaphoric complex. Subsequently, I specified whether such metaphoric complex was rendered via a metaphoric amalgam (if a metaphor was supported by another metaphor, as in Example 3) or a metaphoric chain (if a metaphorical domain mapped onto another metaphorical domain).

2.3. Corpus annotation

I annotated all 210 advertisements to allow for the statistical treatment of the whole corpus (see Section 3) and the qualitative analysis of the most outstanding examples (see Section 4). Besides taking into consideration *product type* and *cognitive operation type* in the annotation of the corpus, I have also born in mind the chosen *modes* to render metaphorical/metonymic conceptual domains.

This annotation plan plunges into the workings of conceptual operations in advertising in its three dimensions: *conceptual*, *discursive*, and *communicative*. At the conceptual level, this research work aims to underscore the distribution of conceptual operations across the corpus. This will allow us to ascertain the degree of entrenchment of multimodal metaphor and metonymy and their patterns of interaction. At the discursive level, the annotation scheme will permit to know how the use of modes are exploited to prompt the activation of conceptual operations and the representation of the promoted products. This will shed new light on the role of mode as a trigger of inferential activity. The correlation patterns between mode and specific conceptual domains may inform on the communicative potential of each mode. Finally, at the communicative level, the marketing strategy behind the promotion of products is investigated in order to assess its weight in triggering different amounts of conceptual complexity. This will help to determine if there is a strong relationship between marketing strategies and the preference by advertisers for a type of figurative language use, and if so, in which form of conceptual operation or complex metaphor-metonymy interaction.

3. ZOOMING OUT: A CORPUS-SURVEY OF MULTIMODAL METAPHOR AND METONYMY IN ADVERTISING

⁴ Forceville (1996) points out that this is only logical for two reasons: (1) advertisers need to sell their products, so they cannot afford faulty interpretations produced by the absence of the advertised product; and (2) advertisers borrow values from desirable and well-connoted domains and ascribe them to their products aiming to draw the attention of their target audiences.

The rationale of a corpus-based study is to present the data before the theory. We now turn to provide the reader with a bird's eye view of the composition of the corpus in terms of cognitive operations and use of modal cues. The results arisen from the careful annotation of the data will plunge into the potentiality of specific advertising variables (such as the design of the advert and/or the type of product advertised) to trigger more or less complex conceptual operations. However, it comes without saying that it is up to the reader whether to stick to the proposed approach or to begin with the qualitative analyses in Section 4 to better assess the quantitative findings offered in Section 3.

3.1. Conceptual operations

The first line of enquiry of this study (RQ1) concerned the distribution of multimodal metonymy, metaphor, and their patterns of interaction, in the corpus. *Figure 1* shows the frequency (in percentages) of a total of 315 annotated conceptual operations in the corpus. The first striking result of this study is that metonymy in advertising is almost as relevant as metaphor: 43% of all the items analysed were annotated as cases of metonymy or any of its related complexes (red in the graphic), whereas 56% of them were marked as cases of metaphor or of any of its related complexes (blue in the graphic). It is also worth noting that there are more instances of metonymy as a simple conceptual operation (14%) than of metaphor working alone (11%). This is probably due to the conceptually basic nature of metonymy as a reference point (cf. Langacker 1993).

The second remarkable result is that *metaphtonymy* (a metaphor-metonymy compound, cf. Section 4.2) holds the highest frequency of appearance (30%, highlighted in light blue). Arguably, this combination of metaphor and metonymy plays such an important role in the corpus because of the ability of metonymy to supply a vantage point of access to advertisements and the ascription of desirable features from a positively-connoted domain to the product via metaphorical mapping. Interestingly enough, the second highest conceptual operation is *metonymic chain*, a conceptual complex that involves a metonymic projection in several steps (19%, highlighted in light red). A possible reason to explain this result might be that current design trends in advertising tend to rely on rather minimalistic advertisement that must be developed in several successive steps to realise its full inferential potential.

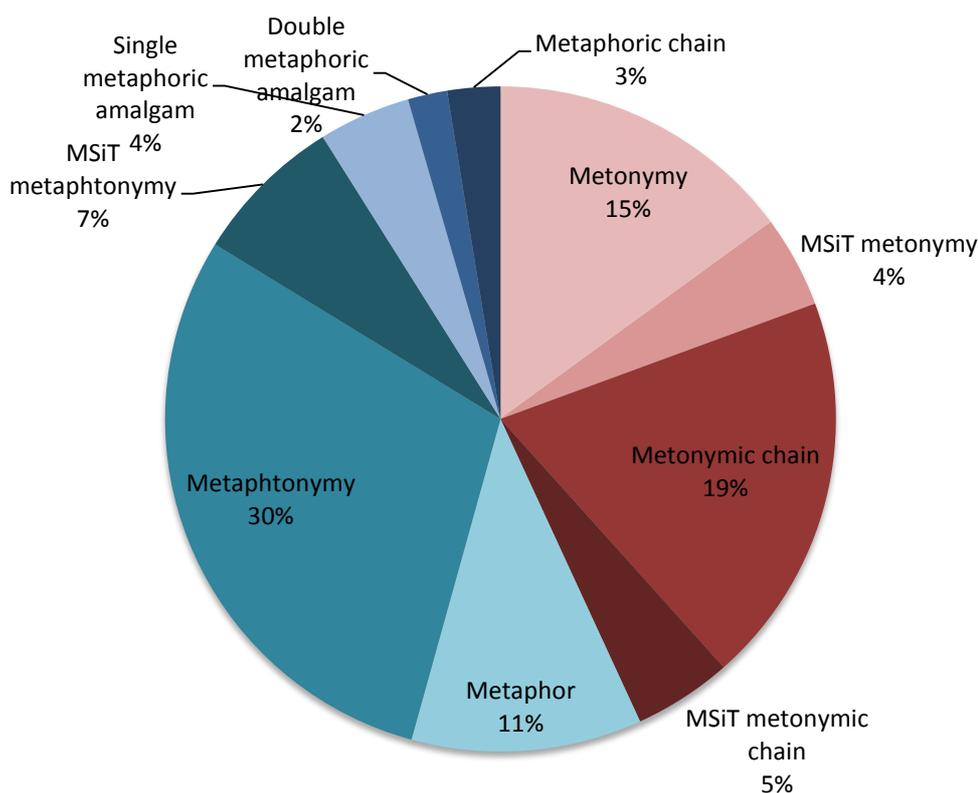


Figure 1. Graphic overview of the distribution of conceptual operations (in %) in the corpus

The graphic also shows the frequencies of several patterns of interaction between metaphor and metonymy: *Multiple source-in-target ((MS)iT) metonymy* (4%), a metonymy that counts on several subdomains that afford simultaneous access to the more encompassing domain; *(MS)iT metonymic chain* (5%), a hybrid that merges a (MS)iT metonymy with additional metonymic mappings; *(MS)iT metaphony* (7%), a metaphorical complex that involves the integration of a (MS)iT metonymy in either the metaphorical source or target domains; *single* and *double metaphoric amalgams* (4% and 2%, respectively), a complex that involves the incorporation of one or two metaphors into the source-target layout of another metaphor; and *metaphoric chains* (3%), whereby the metaphorical target of one metaphor becomes the source domain for a subsequent metaphorical mapping. The reader will find in Section 4 a detailed qualitative description of the more representative novel patterns of interaction: (MS)iT metonymy (4.1), metaphony (4.2), and metaphoric amalgams (4.3).

3.2. Modal cues

The second research aim driving this study (RQ2) related to the investigation of the preferred modes by advertisers to cue both the conceptual operation at work in the advertisement and the promoted commodity. Figure 2 shows that 64% of the conceptual source domains identified in the corpus were delivered exclusively in pictures. By contrast, the visual mode shares prominence with the hybrid verbopictorial mode (text and pictures) when it comes to rendering target domains: 39% and 35% respectively. Interestingly enough, 49% of the advertised products were made reference exclusively through text. This ties up with the difficulty (or even impossibility) of depicting some services and NGO's messages. The other half of the cases is divided into references to the product through pictures and text (26%), or only pictures (25%).

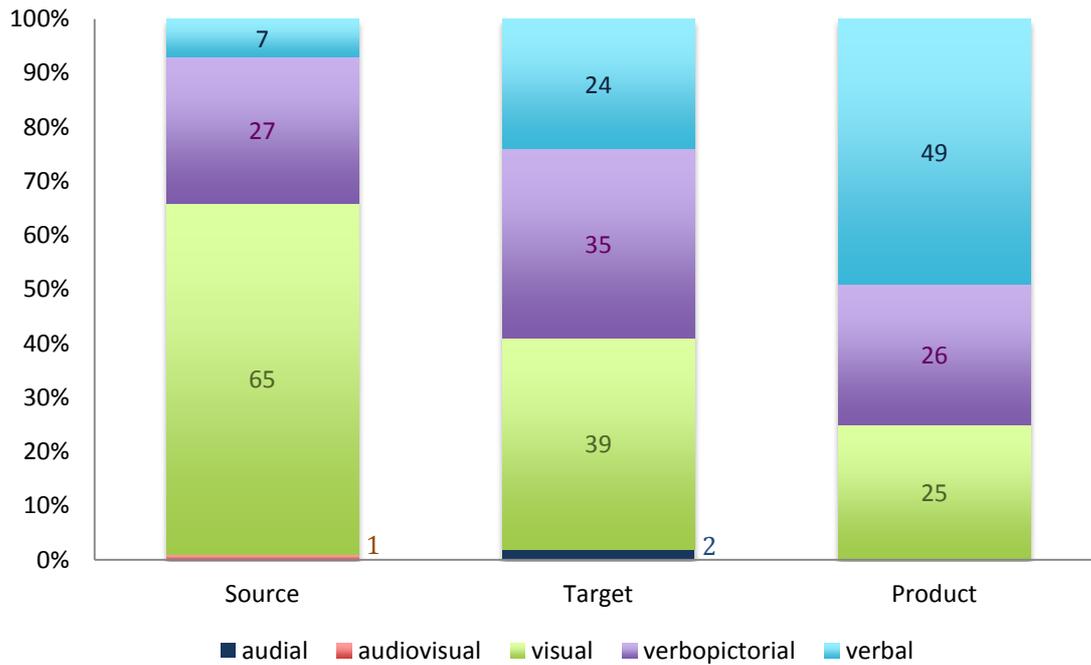


Figure 2. Distribution (in %) of the use of modal cues for conceptual source and target domains, and product

A Chi-Square test for independence (with Yates Continuity Correction) reported a massive significance ($p = .000$) for these results. That is to say, the explicit representation of the product (which occurred in 43% of the advertisements) is very likely to determine the preference for one modal cue (i.e., text) over another. Indeed, the more specific and concrete nature of words guarantees advertisers that their products will be unmistakably identified. However, pictures or pictures in combination with text suit better for conveying source domains, either in the evocation of desirable attributes associated to the product or in the construction of a well-connoted environment to frame the product.

All in all, the results indicate that the visual mode carries the greater amount of the figurative burden in advertising. The inclusion of text is productive too, although only in combination with visuals. It might be worth considering if this is due to the increasing reliance on images in our civilization. There is work giving evidence (cf. Lester 1995) that the combination of visual and textual elements is the most powerful way of communicating: Pictures stay in the mind longer than words, but words act as prompts and constraints for pictures to steer the interpretation in one direction or another. Further experimental research should delve deeper in this issue.

3.3. Effect of mode on conceptual complexity

The third research question (RQ3) wondered whether the choice of one mode over another is more likely to trigger different amounts of conceptual complexity. *Figure 3*⁵ shows the result of crossing the mode used to cue the conceptual source domains with the conceptual operation to which the source domain belongs.

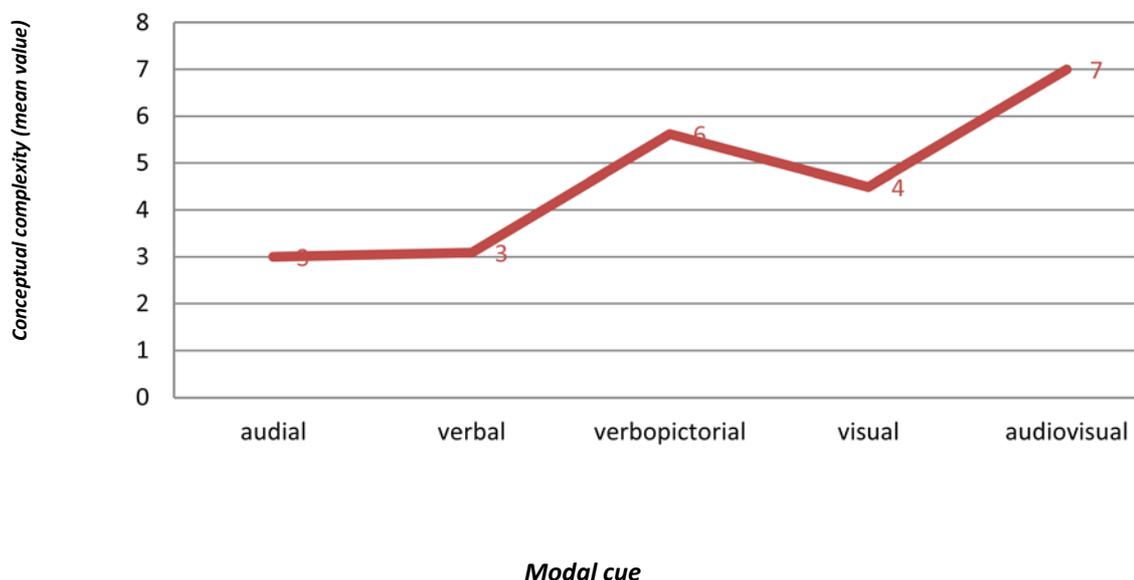


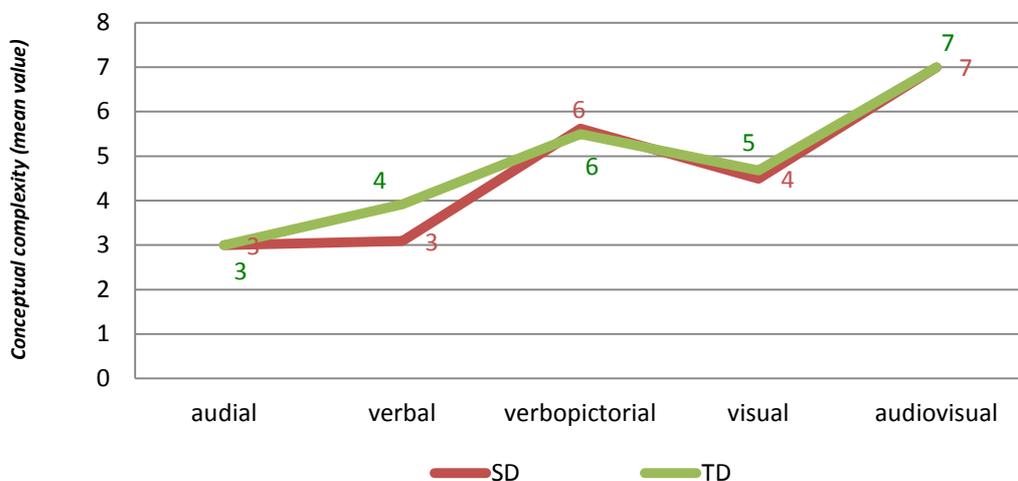
Figure 3. Variation of the conceptual complexity (mean values) required according to the modal cue for the conceptual source domain

As evidenced above, conceptual complexity varies depending on the selection of the mode that cues the source domain: the audial mode (obviously, through the reference to a onomatopoeia) is a perfect candidate to render the source domain of metonymic chains (no deviation). In turn, words are more likely to structure (MS)iT metonymic source domains; text and pictures tend to cue both metaphoric and metaphonymic source domains; and pictures are more frequently found in the source domain of (MS)iT metonymic chains. The combination of the audial and visual modes, although rather scarce, was always found to structure the source domain of (MS)iT metaphonymies. There was a statistically significant difference between groups as determined by one-way ANOVA ($F(6,68)$), $p = .000$.

A similar study was ran for the modes used to represent conceptual target domains. In order to stress the relevance of these findings, *Figure 4* shows the results of the modal cues chosen to render the target domain (in green) in comparison to those previously shown regarding source domains (kept in red). As revealed by the graphic, if the audial mode appears in an advertisement through an onomatopoeia, it does so to cue the target domain of a metonymic chain. The same holds for the case of the verboaudial mode, which is also present in the structuring of the target domain of (MS)iT metaphonymies. Likewise, the verbopictorial mode is more likely to be found rendering metaphorical target domains (yet to a lesser extent than metaphorical source domains). In turn, the visual mode tends to convey the target of (MS)iT metonymies (as well as their source domains) but also metaphorical target domains.

⁵ Conceptual operations are shown in mean values, in a scale that ranges from metonymy=1, (MS)iT metonymy=2, metonymic chain=3, (MS)iT metonymic chain=4, metaphor=5, metaphonymy=6, (MS)iT metaphonymy=7, single source metaphoric amalgams=8, double-source metaphoric amalgams=9, to metaphoric chains=10. In order to ease the understanding of the table, I have also added the closest conceptual operation to which each value refers.

The only visible different between *Figure 3* and *Figure 4* lies in the amount of conceptual complexity triggered by the verbal mode: whereas text was found more likely to prompt (MS)iT metonymies, it additionally activates the target domains of (MS)iT metonymic chains.



Modal cues

Figure 4. Variation of the conceptual complexity (mean value) required according to the modal cue for the source (red) and the target domain (green)

There was a statistically significant relation between modal cue and conceptual source and target domains, respectively, as determined by one-way ANOVA ($F(6,68)$), $p = .000$. The interim conclusion for RQ 3 is that, indeed, there is a direct relationship between conceptual operations and modal cues, and that the conceptual and the discursive level are highly interrelated in the concrete ways shown above.

3.4. Effect of product type on conceptual operations

The fourth and last research question (RQ4) sought to establish whether there was also a significant relation between the conceptual operation underlying an advertisement and the marketing strategy beneath the promotion of the advertised product, i.e. between the conceptual and the communicative dimensions of the advertisement.

Table 2 (reproduced in *Annexes*) reports the distribution of conceptual operations at work in the advertisements for each of the seven marketing strategies introduced in Section 2.1. *Figure 5* below offers a graphic overview of the prevalence of metaphonymy over the rest of conceptual operations in all cases (with the exception of unsought goods where the frequency of metonymic chains is a little bit higher than that of metaphonymies). The overall assessment of the results gives pride of place to metaphonymy as a suitable mechanism to connect the product with the brand via metonymy while, simultaneously, constructing a positive image of the product via metaphorical mapping with a well-connoted domain.

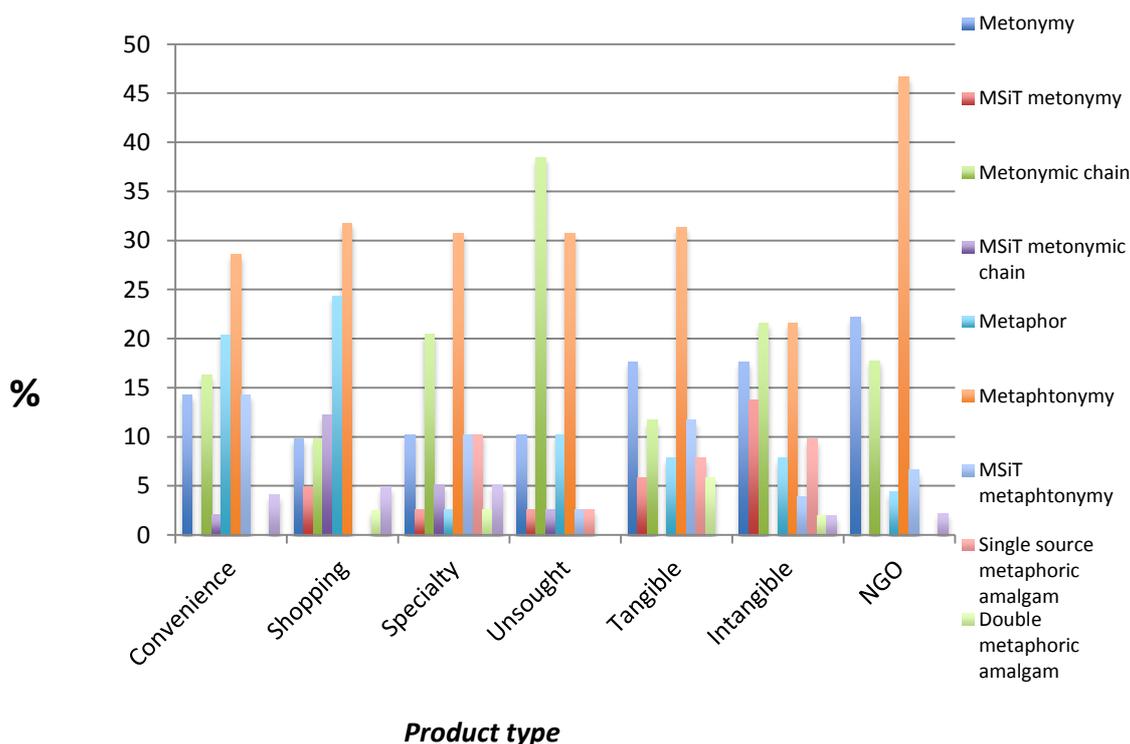


Figure 5. Distribution of the identified conceptual operation per each category of product

However, a Scheffe post-hoc test for multiple comparisons reported the relationship between conceptual operations and product type not significant. Contrary to what might be expected, the specific choice of one marketing strategy over another does not lead to different amounts of conceptual complexity. All in all, this comes as no surprise: as seen above, metaphtonymy occupies a core role in the promotion of both goods and services regardless the adopted marketing strategy.

4. ZOOMING IN: MULTIMODAL CONCEPTUAL COMPLEXES IN ADVERTISING

The findings reported in Section 3 allow us to shift our understanding of metaphor and metonymy as static and isolated cognitive phenomena. Statistical evidence has been offered in favour of the dynamic nature of these two tropes, which appear in advertising preferably in the form of metaphtonymies. Due to the novelty of some of the metaphor-metonymy compounds arisen from the data (cf. Figure 1), I now turn to provide a qualitative analysis of the three of these conceptual complexes: (MS)iT metonymy (4.1), metaphtonymy (4.2), and metaphoric amalgam (4.3). The ensuing qualitative analysis sheds new light on the potentiality of metaphor and metonymy to couple and make up a series of distinguishable interactional patterns that endow the message with richer inferential activity. The activated conceptual complex, besides developing all the inferential material, limits at the same time the creative possibilities of the multimodal manifestation triggering such operations and cancels irrelevant or inconsistent conceptual material.

4.1. Multimodal (MS)iT metonymy

(MS)iT metonymies constitute a cognitive operation by which several subdomains provide simultaneous access to their matrix domain (see Pérez-Hernández 2013 for verbal accounts of this metonymic complex in illocutionary speech acts). The corpus search of images revealed that this metonymic complex (4% of the annotated operations) is creatively exploited for brand identification purposes and/or for the promotion of product features.

Example 1 has been chosen to show the nature and structure of this novel metonymic complex in multimodal use. The billboard below displays four yellow French fries over a red background in a way they resemble a Wi-Fi signal. Indeed, the text shown in the lower right corner confirms that the advertisement is about the new Wi-Fi network available at a chain of fast-food restaurants.



*Example 1. McDonald's*⁶

In spite of its apparent simplicity, this example sheds light on the fact that conceptual complexity is not directly linked to the wealth of information provided by the multimodal cues in an advertisement. In fact, minimalist advertisements, if wittily devised, are ideal candidates to trigger conceptual operations in multiple directions. In the example under scrutiny, two different groups of multimodal elements can be identified that render complementary messages: the identification of the brand and the information about the new Wi-Fi service. On the one hand, the composite make-up of brands makes it possible for individual items to stand simultaneously for the most-encompassing domain, i.e., the brand, either in combination or isolation. In this regard, the corporate colours (yellow over red background), the visual logo, a flagship product (French fries), and the partial reference to textual logo (“I’m loving [it]”), provide the viewer with several conceptual routes to identify the promoted chain of restaurants. Note that all these elements are equally central subdomains to provide access the most encompassing domain McDONALD’S. On the other hand, new information about a service offered at these restaurants, Wi-Fi, can be derived from the shape of Wi-Fi signal, and/or via the text “free Wi-Fi”, that further specifies the availability of this new service. The fact that the Wi-Fi signal is made up with four French fries that combines McDonald’s corporate colours confers new conceptual prominence to the new free Internet service,

⁶ Text: Love free Wi-fi

which evolves from being non-existent within the matrix domain to a defining feature of McDonald's that strengthens the company's public profile. See *Figure 6*⁷ below for a graphic representation.

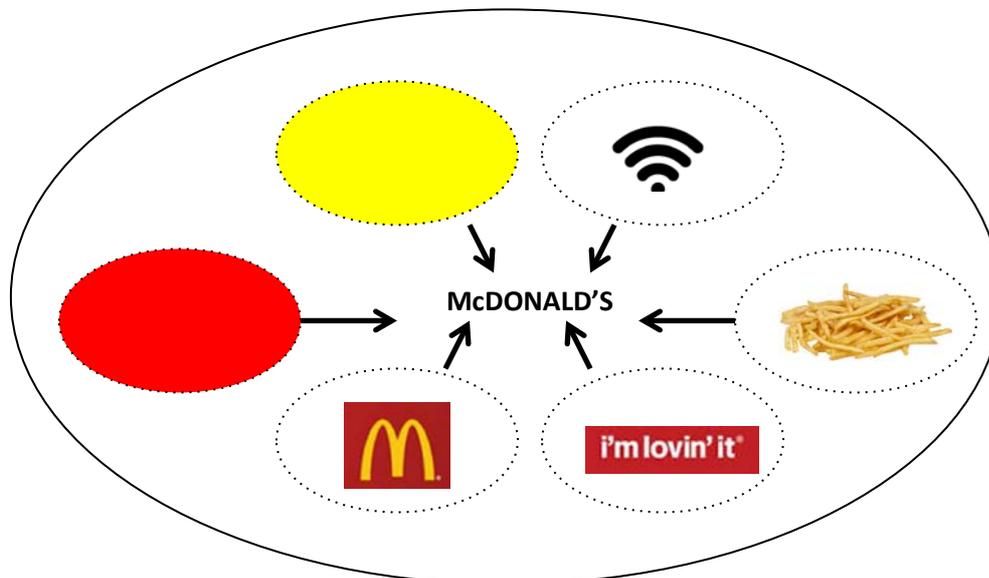


Figure 6. Multiple source-in-target metonymy YELLOW & RED & VISUAL LOGO & TEXTUAL LOGO & FRENCH FRIES & WIFI FOR McDONALD'S in Example 1

Given that consumers count on more than one point of access to the advertised service, (MS)iT metonymies offer advertisers a much safer way to steer consumers in the interpretation of their advertisements. This analysis additionally shows that multimodality not only occurs in the mapping across domains (whether metaphoric or metonymic), but also within conceptual domains. This observation is crucial to refine the working definitions of multimodal metaphor and metonymy, which primarily hinge on the notion of multimodality in the mapping across domains.

4.2. Multimodal metaphonymy

A metaphonymy requires the incorporation of a metonymy in either of the two metaphorical domains (as originally postulated by Goossens 1990 for linguistic discourse, and later on revised and expanded by Ruiz de Mendoza and Díez 2002). As shown in Section 3.1, metaphonymies are central to advertising (30% of the corpus) since they contribute to the balance between processing effort and meaning effects⁸. *Example 2* serves to illustrate the case of this metaphor-metonymy pattern in multimodal use. This minimalistic advertisement of Audi TT (a small two-door sports car marketed by Audi) displays two white speedometers without numbers and arrows over a black background that is reminiscent of two (presumably

⁷ The graphic convention throughout this manuscript is as follows: metonymic domains are represented with circles; same for metonymic subdomains, but with interrupted edge; metaphoric domains with squares; metonymic mappings with black arrows; metaphoric mappings with white thick arrows, metaphoric amalgams with white thick arrows and interrupted edge.

⁸ In spite of that, the reader should recall here that there have been only few academic papers devoted to the interaction between metaphor and metonymy within the domain of multimodality: Urios-Aparisi (2009) in application to TV commercials; and Hidalgo and Kraljevic (2011) and Pérez-Sobrino (2013, 2016.) for printed billboards.

female) eyelashes.



*Example 2. Audi TT*⁹

The identity of the advertiser (in the lower right corner) licenses the characterisation of the car as the metaphorical target domain, onto which the attributes associated to eyelashes are mapped. Here, Audi advertisers have equated the centrality of eyelashes to female beauty with the “unlimited” power of the Audi TT (here hinted by the text and the absence of numbers and indicating arrows in the speedometers), which is arguably what makes Audi cars attractive for prospective buyers. It has to be noted that this metaphorical mapping does not readily allow consumers to derive the intended generic structure from both domains. Consumers first need to undertake parallel metonymic expansion processes to bridge the gap between the elements displayed in the billboard (eyelashes and speedometers) and the persuasive message (women and cars, respectively) to draw the metaphorical connection necessary to process the advertising message.

Depending on the inferential ability of the consumer, there are at least two possible interpretations of this advertisement: (1) it is either the centrality of eyelashes to female beauty that is put in correspondence to the car's unlimited power (in terms of speed and fuel consumption); or (2) it is the understanding of the whole car as an attractive woman what makes the car appealing to prospective consumers. As a matter of fact, this only depends on the perspective adopted by the viewer. What is relevant for our analysis is that in both cases mentioning part of the scenario affords access to a wider and more complex situation in an economic way. See *Figure 7* for a graphic characterisation of this operation.

⁹ Text: New Audi TT. Attractive power.

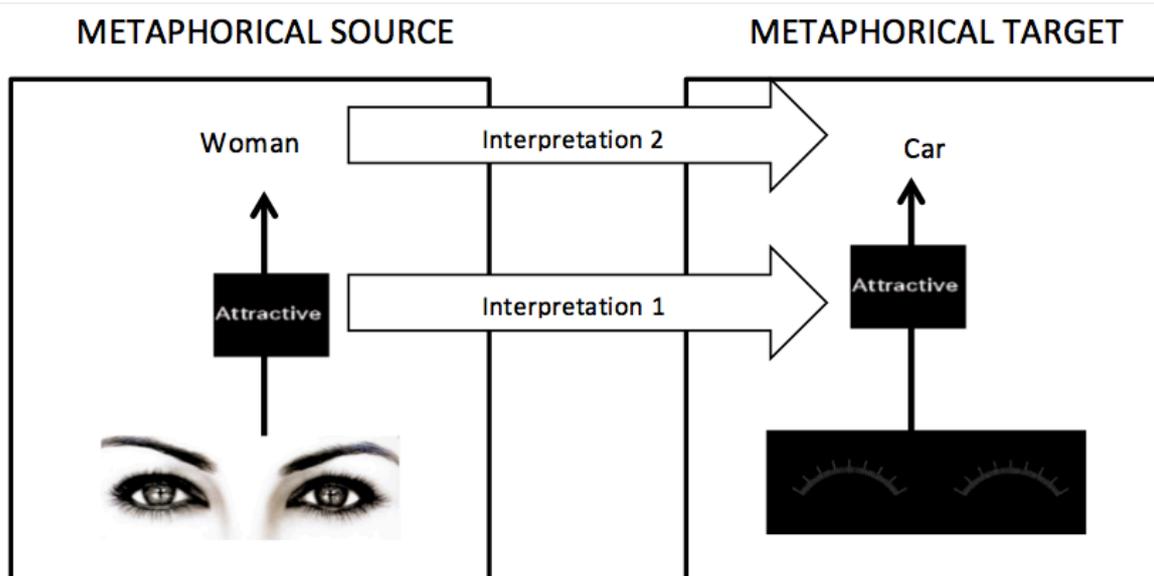


Figure 7. Metaphony (EYELASHES FOR) WOMEN IS (SPEEDOMETER FOR) CAR in Example 2

Parallel metonymic expansion in both the source and the target domains of the embedding metaphor seems quite a convenient strategy in advertising, as it guarantees the interpretation of the billboard only by mentioning core items of both the metaphorical source and target domains. Hence, the viewer is entitled to develop the rest of the persuasive message in a direct and (cognitively) economic manner.

4.3. Multimodal metaphoric amalgam

Much in the same line as in the case of metaphony, metaphoric amalgams require the *integration* of specific aspects of a metaphor (the “donor” metaphor) into the source-target layout of other metaphor (the “receptor” metaphor), which becomes, consequently, conceptually enriched (see Ruiz de Mendoza and Pérez-Hernández 2011: 17 for a verbal account of this interactional pattern). Depending on the number of donor metaphors, we can differentiate between single amalgams (one donor metaphor, 4% in the corpus) or double amalgams (two donor metaphors, 2% of the annotated operations). For the sake of clarity, I restrict myself to the examination of single amalgamation in the light of *Example 3*.



Example 3. OTIS¹⁰

¹⁰ Text: The way to green.

Similar to the observation made for *Example 1*, the minimalist use of visuals and text resources in *Example 3* is not necessarily linked to the complexity of the conceptual scaffolding structuring the multimodal message. Both the ascending chart and textual part convey the idea of the company as a vehicle in motion metaphorically mapped onto a change from an initial state (blue point) to a final state (visually cued in the green point and textually in the caption “the way to green”). Note here that “green” stands for the notion of sustainability in an indirect manner via the metonymic chain GREEN FOR NATURE FOR NATURE FRIENDLY.

A careful consideration of the non-verbal part of the advertisement invites to further refine this preliminary analysis. Whereas the idea of motion is encoded in both the graphic and textual caption, the accumulation of green dots in the graphic additionally renders the idea of verticality. From the perspective provided by Lakoff and his collaborators (Lakoff and Johnson 1980, Lakoff 1993), metaphors built on a vertical axis provide the experiential grounds for the conceptualization of personal well-being. Upward motion or an up position relates to the default position of a happy and healthy body, and ultimately, a powerful person or entity that enjoys a vantage position to see what is ahead or below and thus to make wiser decisions as to how to proceed. The resulting incorporation of the donor metaphor GOOD IS UP (which is purely visual) into the pre-existent structure of the receptor metaphor CHANGE IS MOTION (which is accessible via the textual and/or the visual part) gives rise to a more complex metaphor: SUCCESSFUL CHANGE IS UPWARD MOTION, by which the viewer reasons about the evolution of the company’s success in terms of an ascending path. See *Figure 8* for a graphic summary of the interaction between the initial metaphonymy CHANGE (TO GREEN FOR NATURE FOR NATURE FRIENDLY) IS MOTION with the metaphor GOOD IS UP.

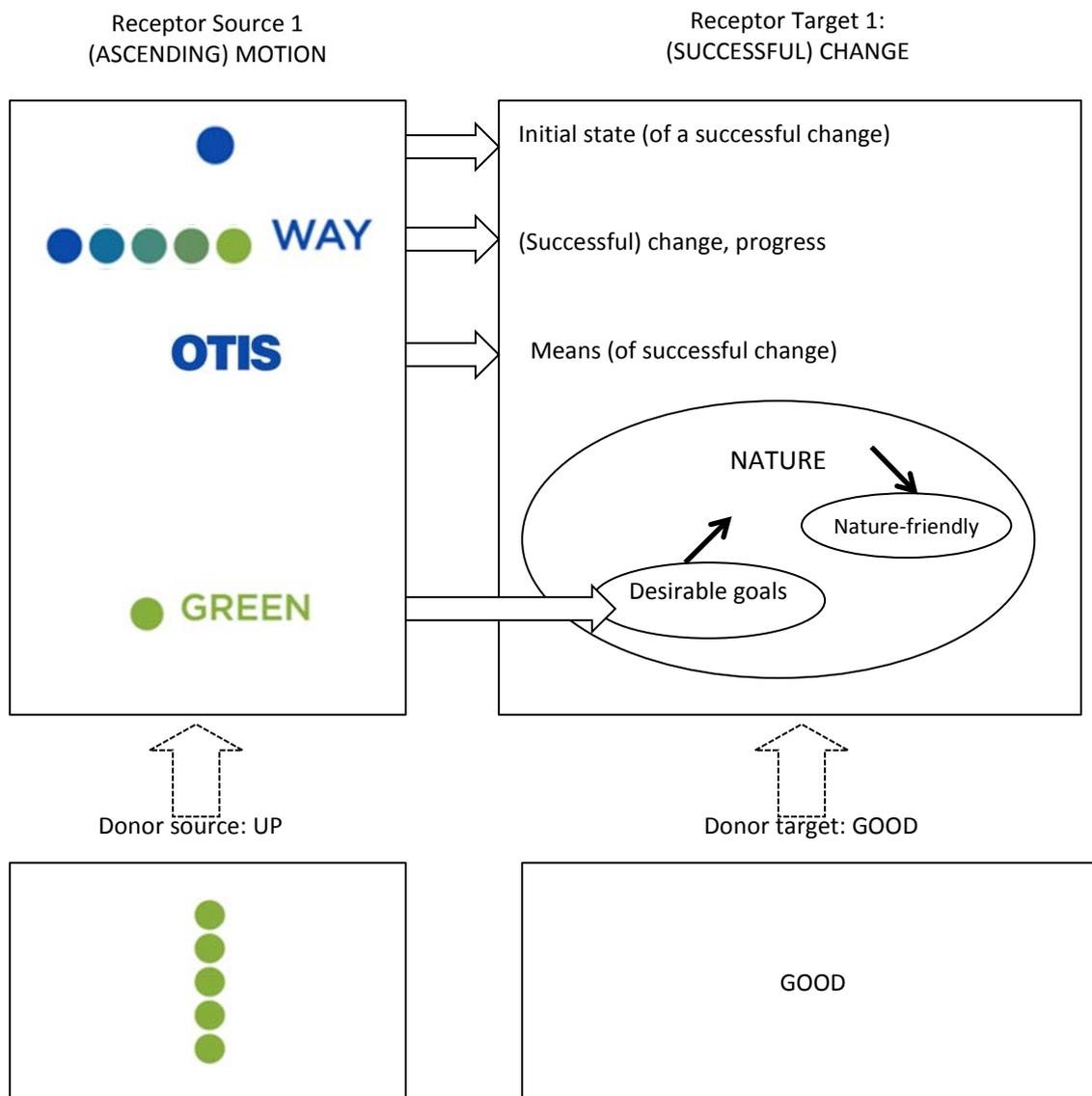


Figure 8. Metaphonymic amalgam *SUCCESSFUL CHANGE IS ASCENDING MOTION* in Example 3

The schematic inclusion of the vertical axis in this logo points to the economic, yet productive, use of the elements displayed in this logo. Besides its suitability to represent elevators and escalators (that transport people along the vertical axis), it also structures the notion of change and success, which are key elements in the creation of a positive image of the brand.

5. CONCLUSIONS, THEORETICAL IMPLICATIONS, PRACTICAL APPLICATIONS

This work sheds new light on the conceptual complexity underlying printed advertising, with particular attention to the productive interplay between patterns of conceptual interaction involving multimodal metaphor and metonymy. The results arising from the examination of the corpus have proved useful to (1) make a series of generalisations of metaphor and metonymy in advertising discourse, (2) enrich existent theoretical accounts these two tropes in multimodal use, (3) and to provide a number of applications to other disciplines such as marketing studies and cognitive sciences.

Regarding (1), Section 3 has provided statistical evidence that metaphor, metonymy,

and their combinations have a visible effect on external advertising variables, thus bridging the gap between the conceptual and the discursive/communicative dimensions of advertising. In order to address the research questions driving this investigation, four main conclusions (MC) can be extracted from this study:

MC 1. *Metaphonymy* is the most frequent conceptual operation in the corpus (30%) because it combines the potentiality of metonymy to provide viewers with an economic point of access to the advertisement with the ascription of features from a positively connoted domain to the product via metaphorical mappings. Additionally, metonymy is almost as important as metaphor in advertising: More instances of metonymy working on their own (15%) than of metaphor (11%) were found, and slightly fewer number of conceptual operations related to metonymy and/or its associated complexes (43%) were reported in comparison with metaphor and its complexes (57%, considering metaphonymy as a metaphorical complex).

MC 2. Metaphoric and metonymic source domains are usually cued by pictures; target domains, however, tend to be cued by pictures and also by the combination of pictures with text. However, advertisers tend to rely on words to communicate about their products. These results prove that the greater figurative weight in advertising is coded in pictures because of their higher evocative potential. By contrast, the product is more likely to be referred to through text since it is the safer mode to identify the promoted commodity.

MC 3. The choice of mode to convey advertisements significantly affects the amount of conceptual complexity involved. The aural mode (whose inclusion in terms of onomatopoeias was rather scarce) was always found to structure metonymic chains. In turn, sound material in combination with pictures (what I called here the audiovisual mode) always cued (MS)iT metaphonymies. In turn, the visual mode was more likely to structure (MS)iT metonymies, and also metaphorical target domains. The combination of pictures with text (verbopictorial mode) was more apt to trigger metaphors than any other conceptual operation. Finally, the verbal mode was found more suitable to activate (MS)iT metonymies, but also the target domain of (MS)iT metonymic chains. This may carry significant implications for identification purposes.

MC 4. However, the type of advertised product and the marketing strategy have no significant effect on the number and complexity of conceptual mappings in the advertisement. That is to say, different types of marketing strategies do not necessarily lead to different types of conceptual operations.

These results might prove useful to raise awareness among advertisers on the ways in which it is possible to make use of shared experiential knowledge for global campaigns, while selecting specific cultural content for local campaigns. The strategic exploitation of such conceptual mechanisms during the design of an advertisement may ensure the creation of a positive image of their promoted products, the correct interpretation of the advertisement by audiences, and the cancellation of misguided interpretations (see Perez-Hernandez 2014).

Additionally, **(2)** several novel patterns of interaction that have not been already attested in multimodal environments emerged during the analysis of the corpus of advertisements. More specifically, Section 4 has provided a description of (MS)iT metonymy, multimodal metaphonymy, and multimodal metaphoric amalgam in multimodal use. Embedding this analysis within existent verbal accounts of metaphor-metonymy combinations has endorsed this study with greater parsimony and explanatory efficacy. Further research should delve deeper to find novel variants of these interactional patterns that will serve to enrich and expand the current bulk of theory of metaphor and metonymy.

Besides the contribution to marketing studies and cognitive linguistics, **(3)** the practical applications of this research point directly to the design of more effective practices for tackling cross-cultural communication. Little is known about the depth to which audiences process figurative information when it appears in multimodal format in advertisements or about how

long it takes them to do so. The existent studies (e.g. Ang and Lim 2006, Chang and Yen 2013, McQuarrie and Philips 2005, Morgan and Reichert 1999) are mostly post-hoc approaches that report whether the use of figurative language in terms of multimodal metaphor works for selling a product. These studies, however, do not plunge into how advertisers should choose a source domain to conceptualise their products, nor into the role that the selected source domain plays in assuring advertisers that their targeted consumers will infer the message correctly. In a recent experiment, Littlemore and Perez-Sobrino (fc.) tested whether metaphor-metonymy combinations were related in a significant way with other cognitive variables of interest for marketing experts and cognitive scientists (such as time of processing, depth of comprehension, perceived persuasive power, and cultural and linguistic background). More studies of similar nature are needed to provide advertisers with specific routes to devise more effective campaigns. Additionally, it would be worth exploring the interrelation between figurative complexity and emotions, as it is still not known whether figurative complexity in advertising actually triggers any kind of emotion, and whether this is positive or negative. This work should provide a number of hypotheses to test in reaction time and priming experiments, electrodermal activity tests and EEG studies.

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Example 1. Wi-Fries (2009)

Source: McDonald's

Advertising Agency: DDB, Sydney, Australia.

Example 2. AUDI TT (2007)

Source: Audi

Example 3. OTIS, The Way to Green (2011)

Source: Otis Elevator Company

ANNEXES

Table 2. Distribution of conceptual operations per product type

Conceptual Operation	N	%
Convenience	49	16
Metonymy	7	14
(MS)iT metonymy	-	-
Metonymic chain	8	16
(MS)iT metonymic chain	1	2
Metaphor	10	20
Metaphtonymy	14	29
(MS)iT metaphtonymy	7	14
Single source metaphoric amalgam	-	-
Double metaphoric amalgam	-	-
Metaphoric chain	2	4
Shopping	41	13
Metonymy	4	10
(MS)iT metonymy	2	5
Metonymic chain	4	10
(MS)iT metonymic chain	5	12
Metaphor	10	24
Metaphtonymy	13	32
(MS)iT metaphtonymy	-	-
Single source metaphoric amalgam	-	-
Double metaphoric amalgam	1	2
Metaphoric chain	2	5
Specialty	39	12
Metonymy	4	10
(MS)iT metonymy	1	3
Metonymic chain	8	21
(MS)iT metonymic chain	2	5
Metaphor	1	3
Metaphtonymy	12	31
(MS)iT metaphtonymy	4	10
Single source metaphoric amalgam	4	10
Double metaphoric amalgam	1	3
Metaphoric chain	2	5
Unsought	39	12
Metonymy	4	10
(MS)iT metonymy	1	3
Metonymic chain	15	38
(MS)iT metonymic chain	1	3
Metaphor	4	10
Metaphtonymy	12	31
(MS)iT metaphtonymy	1	3
Single source metaphoric amalgam	1	3
Double metaphoric amalgam	-	-
Metaphoric chain	-	-
Tangible services	51	16
Metonymy	9	18

(MS)iT metonymy	3	6
Metonymic chain	6	12
(MS)iT metonymic chain	-	-
Metaphor	4	8
Metaphtonymy	16	31
(MS)iT metaphtonymy	6	12
Single source metaphoric amalgam	4	8
Double metaphoric amalgam	3	6
Metaphoric chain		-
Intangible services	51	16
Metonymy	9	18
(MS)iT metonymy	7	14
Metonymic chain	11	22
(MS)iT metonymic chain	-	-
Metaphor	4	8
Metaphtonymy	11	22
(MS)iT metaphtonymy	2	4
Single source metaphoric amalgam	5	10
Double metaphoric amalgam	1	2
Metaphoric chain	1	2
NGO	45	14'29
Metonymy	10	22'22
(MS)iT metonymy	-	-
Metonymic chain	8	17'78
(MS)iT metonymic chain	-	-
Metaphor	2	4'44
Metaphtonymy	21	46'67
(MS)iT metaphtonymy	3	6'67
Single source metaphoric amalgam	-	-
Double metaphoric amalgam	-	-
Metaphoric chain	1	2'22