A COGNITIVE-AXIOLOGICAL APPROACH TO PRINT ECO-ADVERTISEMENTS IN THE ECONOMIST: THE ENERGY SECTOR UNDER SCRUTINY

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Abstract: *In this paper we intend to map out some of the dominant values in print advertisements announcing different types of environmentally friendly products and services from energy (oil, electricity, etc.) and heavy industry corporations. We will analyse the qualities and values explicitly linked to ecological samples through metaphors, metonymies and image schemas and the way in which they are introduced in advertising discourse. To this end, we have selected a corpus of sample advertisements published in 12 editions of The Economist, a well-known, prestigious business magazine. The Lakoffian semantics analysis will be used in order to give us a more reliable estimate of values and metaphorical processes linked to environmental topics as well as an account of the cognitive and discursive means used to denote them.*

Key words: *advertising discourse, axiological linguistics, cognitive semantics, eco-linguistics, metaphors and metonymies, analysis of values.*

1. INTRODUCTION

If the eco-critical discourse analysis as a branch of eco-linguistics (Harré et al. 1999; Stibbe 2005, 2006) has basically taken into consideration the negative effects and the hidden influence of language upon the preservation of the environment, then it would be convenient to reach a balance and ask the following questions:

- Is there a positive approach?

- To what extent are companies and institutions gradually moving towards more environmentally friendly advertising?

- Is there any metaphorical, metonymic, verbal and/or pictorial evidence of this supposedly more optimistic approach?

It is also a fact that eco-critical discourse analysis is gradually moving in the direction of PDA or positive discourse analysis (Martin and Rose, 2003) and the search for discursive representations which could contribute to a more ecologically sustainable society. Along the lines of this new aim, in this study we are going to combine the analytical instruments and principles of cognitive axiological approaches (other than PDA) with contributions from the Lakoffian type of semantics. More specifically, we intend to map out some of the dominant values in print advertisements announcing different types of environmentally friendly products and services from energy (oil, electricity, etc.) and heavy industry corporations. We will analyse the qualities and values explicitly linked to ecological samples through metaphors, metonymies and image schemas and the way in which they are introduced in advertising discourse. The corpus of sample advertisements was published in 12 editions of The Economist, a well-known, prestigious business magazine. Howe-

ver, this purpose might be facilitated by a theoretical introduction to the basic axiological tenets in modern linguistics which might contribute to a better understanding of this study.

2. THEORETICAL REMARKS

It is true that the study of values in modern linguistics has been scarce in two of the most relevant linguistic traditions, either structural or Chomskyan, but at least there have been a few relevant contributions from other perspectives that have laid the foundations of axiological linguistics or axioematics, particularly in cognitive semantics. Krzeszowski (1990) not only introduced the key principles of this new perspective, but also pointed out the dominant function that values perform in the structure of concepts (Krzeszowski 1990: 161). For this latter scholar many lexical items carry heavy axiological weight, and that weight is semantically relevant. Furthermore, he makes a case for Lakoff´s ICMs as a starting point for the development of a general theory of values. Accordingly, the level of experience constitutes the first step in configuring a hierarchy of values relative to the way people evaluate situations. In addition, Krzeszoswki (1993, 1997, and 2004) argues that the axiological parameter POSITIVE-NEGATIVE lends special dynamism to the use of preconceptual schemata in metaphorization. From a different angle, the role of values was also explored by Pauwels and Simon Vanderbergen (1993, 1995). These authors focused on metaphoric projections from the domain of body parts on to that of linguistic action. Interestingly enough, in our view, it is the emphasis that they placed on context which is worthy of note. Metaphors expressing value judgements can be grouped into two main classes: (1) context-independent value judgements, that is, prototypically positive or negative and (2) context-dependent value judgements.

It is also true that previous research in advertising discourse has established the link between context-dependent or context-independent values and advertising in many ways. Cortés de los Ríos (2001: 43-53) collects and summarises a significant amount of relevant contributions to the codification of values in advertising discourse, particularly those of Andreu, Ericsson, Ohlsson and Tännsjö (1978), Pollay (1984), Khale (1986), Jhally (1987), Delbecque and Leuven (1990), Bhatia (1992), Cheng and Schweitzer (1996) and Caillat and Mueller (1996), among others.

It is particularly relevant how previous research in the field of cognitive semantics has demonstrated that cognitive tools such as metaphor and metonymy play an extremely important role in advertising strategies, both independently or in interaction patterns. On the one hand, metaphoric conceptualization of products and services are represented by means of verbal and non verbal resources. On the other hand, the advertised product or service is represented metonymically by the brand name or the product image (Ungerer, 2000; Rocamora Abellán, 2004; Velasco Sacristán y Fuertes Olivera, 2004; Forceville, 1999, 2006, among others). Metaphors based on metonymies and metonymies based on metaphors are also common. In this sense, both are considered to interplay and interact, making it more difficult to differentiate them (Barcelona, 1998; Taylor, 1995 (1989), Radden, 2000). Other patterns that are also used in advertising in order to persuade customers are image schemas (Umiker-Sebeok, 1996; Cortés de los Ríos, 2001). They underlie all aspects of meaning and cognition and hence they motivate important aspects of how we think, reason, and imagine and can therefore play an important role in persuasion, although as Gibbs and Colston argued (2006: 260): "… they are a crucial undervalued dimension of meaning".

If, as Lakoff and Johnson (1980: 5) argue, "the essence of metaphor is understanding and experiencing one kind of thing in terms of another", the possibilities metaphor offers for advertising are obvious. For example, we can understand ENERGY in terms of a less complex concept: PERSON. The mapping ENERGY IS A PERSON is based on the following metaphorical expression: The human energy that drives us to succeed has been there every day since the beginning of

mankind. The fact that the advertiser chooses the metaphor PERSON to transfer positive qualities to eco-advertisements in order to "humanize" them might be rated as surprising.

Metaphors seem to be very effective for trying to attract the reader's attention as well as reinforcing the contextual effects, which the advertisement produces. Communicators design metaphors to drive consumer thinking and behaviour in actionable ways using prospective clients´ metaphors, that is to say, in everyday spoken language. As Zaltman & Coulter (1995: 38) postulated:

> Metaphors are the key windows/mechanisms for viewing consumer thought and feelings and for understanding. For the most part, it is only through Lakoff and Johnson´s metaphors that we can understand consumer thinking and behaviour and thus learn how to develop and market goods and services successfully. Even behaviour and thoughts are themselves metaphors for one another.

Hence, an advertiser selects a particular metaphor to persuade and influence consumers. As a result, metaphor can easily be exploited for reasons of persuasion and manipulation (Roher, 1995). In addition to this, metaphorical processes can and do play a role in advertising images. Three general categories of metaphorical realisations can be identified for advertising metaphors: verbal, pictorial and multimodal (Forceville, 1996, 2002, 2006), which can accommodate even more specific subtypes: pictorioverbal, verbopictorial, etc. Forceville (2006: 10) pursues the thesis that if:

> Conceptual metaphor theory is right in assuming that humans pervasively use verbal metaphor because they largely think metaphorically, then metaphorical thought should manifest itself not just in language, but also via all other modes of communication, such as pictures, music, sounds and gestures.

Forceville was the first to introduce a comprehensive theory of pictorial metaphor in advertising, which offers a very detailed and useful model for analysis that has been widely adopted by a lot of researchers. He proposes that pictorial metaphor, like in the verbal form, consists of "two things". A "literal primary subject" and a figurative secondary subject" (1996: 5). Both subjects can be envisaged as "domains of meaning elements" ranging "from verifiable facts to connotations", and including "beliefs about and attitudes toward that subject". In each metaphor, one or more features of the domain of the secondary subject (the source domain) are mapped on to the domain of the primary subject (the target domain) (1996: 6): INFORMATION IS POWER (example from this corpus). Forceville also points out that the similarity between the two terms of the metaphor is not necessarily pre-existent, but instead, often created by the metaphor itself (1996: 108): NOTES ARE AWARENESS-RAISING DATA (See appendix, figure 2). This is especially useful in advertising.

Metonymy, however, only involves one conceptual domain, that is to say, the mapping occurs within a single domain and not across domains. In metonymy there is a "stand for" relationship since one entity in a schema is taken to stand for another entity in the same domain or for the domain as a whole. Metonymies are usually represented by the schema X FOR Y, where X represents the source domain (also called vehicle) and Y symbolizes the target meaning of the metonymic operations. Likewise, metaphor and metonymy may interact in a number of ways (Ruiz de Mendoza & Díez, 2002; Herrero, 2002). For example the following ontological metaphor: "Governments and businesses must reduce their own energy use" interacts with the metonymic structure: COMPANY (INSTITUTION) FOR ITS PERSONNEL.

Diverse analyses have shown that image schemas can serve as source domain of countless metaphors (Lakoff & Johnson, 1980, Lakoff, 1987, Ruiz de Mendoza, 1997; 1998; Peña, 2000; Hampe, 2005 and Hurtienne & Israel, 2007). Image schemas are abstract representations of recurring dynamic patterns of bodily interactions that structure the way we understand the

world. They are schematic and exist beneath conscious awareness (e.g. container, part-whole, front-back, up-down, source-path-goal, link, balance, forward-backward, cycle). For example, by means of the following linguistic expression extracted from our sample corpus: "… the nickel containing stainless steel will be valuable, will be recycled and will return to service as "new" stainless steel". Here the advertiser conceptualizes renovation (positive value of eco-advertising) as a cyclical experience. On the other hand, we would like to underline the impact of the PLUS MINUS parameter in image schemas, that is to say, the tendency of the opposing parts of an image schema to be more positively or negatively valued (Krzeswoki, 1993, Pauwels and Simon Vanderbergen 1993, 1995; Peña, 2003; Núñez Perucha, 2003). According to this, we would also like to outline the fact that the plus-minus parameter shows that the second element of an image schema is assumed to carry negative evaluations. However, in eco-advertising discourse the image schema MORE IS UP (GOOD) and LESS IS DOWN (BAD), well grounded in Western culture, is inverted to be paradoxically conceptualized as LESS IS GOOD. Scale is the most frequent schema, mainly to conceptualize reduction of negative impact in quantitative terms. At this respect, LESS IS GOOD or REDUCTION IS GOOD, is conceptualized as a clearly appreciative schema on a positive-negative scale.

Finally, the role played by colours for print advertisements is of prime importance. Colour system has been a crucial factor in the understanding of embodied language (Feldman, 2006: 66). Colour is an integral element of corporate and marketing communications. It induces moods and emotions, influences consumers' perceptions and behaviour and helps companies position or differentiate from the competition. As Lakoff states (1999), colours and colour categories are not "out there" in the world but are interactional. Colour concepts and colour-based inferences are thus structured by our bodies and brains. Categories of cognitive colours are capable of "conveying" sensations or concepts to the person observing them.

As M.M. Aslam (2006) claims, in the Western world the four elements of nature have been related to four colours since the Middle Ages: scarlet (later red) with fire, white (later black) with earth, blue with air and purple (later white) with water. Mystical interpretation was given to these colours, because blue denoted heaven, scarlet denoted charity, purple denoted martyrdom and white denoted chastity and purity. As the print adverts will show, some colour associations of that period continue to convey the same interpretations nowadays. The colour green being associated with ecological issues or the environment is relatively new, though traditionally it was also associated with purity (China, Korea) or happiness in Japan (Aslam, 2006).

In contemporary advertising, Brennan (2008) summarizes the findings of a considerable amount of researchers and updates the connotations of the three most relevant colours in the sample studied:

Blue: Blue is by far the world's most popular colour. And as one that, like green, occurs in nature - the hue of skies, water and sea – it is not surprising that it is so well loved. With such universal associations and widespread appeal, blue is an important asset to any colour theorist. (See appendix, figure 1, 4, 6, 9, 10, 12, and 13).

Green: Occurring naturally as a sign of plant growth and renewal, green is one of those colours that is universally seen as positive, fresh and fertile. This emphasis on nature, freshness and renewal means that it is commonly used to emphasize the cleansing, 'regenerative' aspect (…) Green, of course, has steadily evolved into the symbol of all that is ecologically aware. (See appendix, figure 2, 3, 5, 12, and 13).

Yellow: Yellow is clearly vibrant, energetic and fun – it is the colour of sunshine, flame and fire and is closely associated with warmth, happiness and the positive energy such states create.

It produces bodily responses that are perfectly in keeping with this reading, too; an instant feeling of well-being along with a noticeable boost to mental activity. (See appendix, figure 5, 8, 11, and 12).

3. DATA ANALYSIS AND METHODOLOGY

Advertisers often tend to present the positive aspects of a product to consumers by verbalizing how good or excellent the product is for the customer. However, advertising prefers to establish a metaphorical link with a domain conventionally representing the desired quality (Ungerer, 2000: 325). At the same time, abstract services take shape by combining the cognitive potential of linguistic and pictorial metaphors in order to compensate for the non-existence of a tangible product by evoking feelings of trust, confidence and security (Forceville, 1996, 2006). As to metonymy, advertising frequently uses this cognitive structure simply by putting a product in close proximity to something we want (beauty, happiness, etc.) as well as image schemas which are capable of endowing expressions with a strong axiological value (Díez Velasco, 2001).

3.1. Method
As indicated above, in order to carry out the analysis of the sample selected we preferred to follow the lines of the theory of cognitive linguistics outlined over the last three decades (amongst others see Johnson, 1987, Lakoff, 1987, 1993, Lakoff and Johnson, 1980, Forceville, 1996, 2006; Ruiz de Mendoza, 2000; Ungerer, 2000; Ruiz de Mendoza and Mairal Usón, 2007), but adding some findings from other axiomatic contributions (Peeters, 2003; Felices Lago, 2006, 2008).

3.2. Research aims
As a result of the theoretical background expounded above, in this paper we will analyse the qualities and values explicitly linked to ecological samples (the energy sector), the way in which they are cognitively introduced and their general axiological implications. So we intend to analyse metaphors, metonymies and image schemas in printed advertisements which contain verbal and pictorial messages with environmentally friendly solutions and alternatives for the energy and heavy industry sectors.

To this end, we have selected a sample corpus of printed advertisements published in 12 copies of The Economist, a well-known, prestigious business magazine.

3.3. Corpus
The elements taken into account were:

A) The Economist was selected because it has been published since 1843. It is also distributed worldwide and offers the most authoritative information focusing on international politics, business news and opinions.

B) An initial corpus consisting of 177 printed advertisements included in the weekly international magazine The Economist for the years 2005, 2006 and 2007. February and November were the months selected and the issues of the 1st and the 3rd week were the copies chosen to collect the samples from.

C) After close scrutiny, the total number of advertisements where axiologically sensitive environmental topics had been introduced was 26. Of these, 13 refer to the energy sector and heavy industry.

Although the number of final advertisements cannot be considered conclusive, a relevant group of companies is represented and admissible evidence can be claimed.

With reference to the types of companies being advertised in the magazine (using verbal and visual messages to promote their products at the expense of the environment), the following results have been obtained:

1.- ENERGY (OIL COMPANIES)	6 ads
2.- INDUSTRY (COAL AND STEEL)	4 ads
3.- OTHER ENERGY SECTORS (ELECTRICITY, ETC.)	3 ads
4.- AERONAUTICAL	3 ads
5.- AUTOMOBILES	2 ads
6.- PRIVATE BANKS AND INVESTMENT AGENCIES	2 ads
7.- FINANCIAL GROUPS	2 ads
8.- COMMUNICATIONS	1 ad
9.- CONSTRUCTION	1 ad
10.- ELECTRONICS	1 ad
11.- FOOD COMPANIES	1 ad

Table 1. Types Of Companies

The companies included in the sample subject to scrutiny in this research are as follows:

· Energy (oil companies): Chevron (4), BP (1), Exxon Mobil (1).

· Industry (Coal and steel): Arcelor (2), Nickel Institute (2).

· Other energy sectors (Electricity, etc.): ABB (1), GE (1) Suez (1).

The other company adverts referring to ecological issues were not analysed because of reasons of space and also because they are not included in the energy sector and other related industries, which are the purpose of this study. However, the company names are as follows:

· Private banks, investment agencies and financial groups: Man (2), ABN-Amro (1), Global Portugal (1).

· Aeronautical: Airbus (3).

· Automobile: Toyota (1), Lexus (1).

· Communication: NTT (1).

· Construction: Saint Gobain (1).

· Electronics: Samsung (1).

· Food companies: Agrana (1).

3.4. Corpus analysis

The sample of printed advertisements selected here can be seen in the appendix of this article. In the following lines, a schematic account of the qualities and values explicitly linked to ecological samples through metaphors, metonymies and image schemas will be given as well as comments on the way in which these cognitive tools are introduced and interact.

3.4.1. Values

3.4.1.1. Key value: ENERGY SAVING

Energy saving is updated as a value in the ecological discourse (context-dependent value)[1] and is clearly shown in the sample of adverts (see appendix 1). This interpretation is based on the following cognitive tools:

source	target
gloomy prospects	map and chart (figure 1)
unfair world	pictures (figure 4)
human progress	energy consumption (figure 4)
human happiness	energy saving (figure 4)

Table 2. Visual metaphors

In figure 1[2] we can see a report placed in the middle of the page surrounded by two photographs, a map and a graph. In one of the pictures we can see a person from a Third World country, in the other we can see an image of a developed country with a lot of polluting vehicles in a traffic jam. The advertiser is conveying the idea that a part of our world consumes a lot of energy and the other part has little access to it. The map indicates the oil-producing countries and refers to the growing difficulty in obtaining oil. The graph shows the main producers of oil. All these iconic elements reinforce the value of Chevron: saving energy.

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[1] Context-dependent refers here to the fact that values such as energy saving, impact reduction, etc. are values basically activated in the ecological discourse, but would not be context-independent values such as beauty, truth, generosity, etc., which are positive values regardless of the discourse type.

[2] All references in this article are to figures (1 to 13) collected in the appendix and refer to the print advertisements selected for this study.

In figure 4 we can see a report placed on top of lots of pictures showing people from all over the world. This can be iconically interpreted as a warning that there might not be enough energy for everybody in the world and, consequently we must save energy and develop alternative energy sources. In addition, we can see Robert Pistorius, a male legless athlete, who won a gold medal in the paralympic games. This is an example of how we can overcome the current problems with effort and cooperation and also be able to find a solution to an increasingly crowded world.

In tables 3 and 4 we have collected the metonymies conveyed by the publicist to reinforce the energy saving value:

source	stands for	target
Notes		awareness-raising data (figure 2)
a report/a fountain pen/web site/ a writing pad		Chevron's commitment (figures 1, 3, 4)
petrol molecule		energy saving (the gradually smaller petrol molecule stands for gradually smaller amounts of petrol) (figure 6)
the picture		children's (future) hope (figure 2)
the miner with the light bulb		energy reduction activity (figure 3)
the vehicle draft design		energy efficiency (figure 3)

Table 23 Visual metonymies

Metonymy-based metaphors, visual metonymic sources such as the report, the fountain pen, the web site, the writing pad and the notes build up the following visual metaphor: INFORMATION IS POWER (TO CHANGE THINGS OR RAISE AWARENESS). The visual presentation on figure 6 shows two circles, one larger than the other. The gasoline molecule is iconically represented as being gradually reduced and, consequently, implying the reduction of energy consumption. This metonymy interacts with the image schema of attribute big-small. The metaphor BIG IS UP (GOOD) and SMALL IS DOWN (BAD) are inverted to be paradoxically conceptualized as SMALL IS UP or SMALL IS GOOD.

source	stands for	target
Company		workers (metaphtonymy) interaction between an ontological metaphor and metonymic concept) (figure 2)
the world		the people that inhabit the world (figure 2)

Table 4. Verbal metonymy

The above metonymies interact with the space image schema: containment-in-out. The container (company and the world) stands for its contents.

The advertiser also uses the front-back space visual image schema to show people's faces (figure 4). This schema interacts with the following metonymies: FACES STAND FOR PEOPLE and

FACES STAND FOR PEOPLE'S (FUTURE) HOPE. This symbolizes that we, as human beings, are the unique actors in changing the current trend in environmental issues.

3.4.1.2. Key value: (IMPACT) REDUCTION

Negative impact reduction is closely linked to the value described above (energy saving) and is also updated as a value in the ecological discourse (context-dependent value). This interpretation is based on the following verbal and visual metaphors (table 5, 6) and metonymies (table 7):

source	target
person	energy (figure 4 and figure 11)
Person	steel (figure 7)
vein system	grid (figure 11)
People	wind turbines (figure 13)
Person	GE (figure 13)

Table 5. Verbal metaphors

The publicist repeatedly introduces the concept human to transmit positive qualities to energy. This concept is used to mitigate the negative image people have about some sources of energy and their environmental impact. Additionally, it is a known fact that blood circulates through veins and electric power through a grid (figure 11). In this case, the advertiser associates blood with energy which can be self-healing to reduce negative impact.

source	target
present and future (world solutions)	new steel (figure 7)
Light	wind energy (figure 13)

Table 6. Visual metaphors

The present is represented by the world (figure 7) surrounded by environmentally friendly vehicles and the future (and, to some extent, the present) is also represented by satellites in the picture turning around the planet. In figure13, wind turbines are seen as the filaments of a light-bulb producing clean energy. In addition, a light-bulb is associated with the creation of ideas and imagination. GE tries to emphasize the perception that clean energy or reduction of negative impact is the result of an idea.

source	stands for	target
emission reductions		people's future (figure 6)
Company		workers (metaphtonymy) interaction between an ontological metaphor and a metonymic concept) (figure 4)

Table 7. Verbal metonymies

The metonymy (figure 6) interacts with the following primary metaphors FUTURE IS UP and GOOD IS UP. The publicist refers to everybody in terms of time as a hope for the reduction of negative impact. The future depends on our behaviour, for this reason we must care for our world if we want to continue living in it for a long time. Likewise, the idea of reduction is well grounded on a lot of verbal expressions from the corpus, for example:

Using less energy mean there's more fuel to go around (figure 3)

Switch on to lower carbon emissions (figure 5)

Reducing pollution and gas emissions (figure 8)

Reduced our CO2 emissions (figure 8)

We're working to reduce emissions (figure 6)

Develop engine and fuel systems that will lower emissions (figure 6)

Develop new, low greenhouse gas energy technologies for the future (figure 6)

3.4.1.3. Key value: CONSERVATION

The amount of cognitive instruments supporting this context-dependent value are more limited than in previous cases. All instances can only be found in figures 1 and 3. However, the axiological link between saving energy, (impact) reduction and conservation is evident. To a certain extent, the three values would be part of a more general assumption: saving energy is a key contribution to environmental conservation and impact reduction.

source	target
Race	conservation efforts (figure 1)

Table 8. Verbal metaphor

The above metaphorical concept is based on the following verbal metaphorical expression: How do we accelerate our conservation efforts?

The publicist introduces the verb "accelerate" linked to the world of motoring to emphasize that conservation efforts must be quickly made. The advertiser also uses the space image schemas: centre-periphery, near-far (figure 1) and the attribute image schemas: big-small (figure 3) to confer an axiological positive load upon conservation. This aspect is also reinforced by image schematic interaction, as can be observed in the following expression: The good news is we've got a huge source of alternative energy all around us. It's called conservation (figure 3). The theoretical background of this assumption is based on the primary metaphor concept.

Primary metaphor, according to Lakoff and Johnson (1999), is a way to conceptualize, reason and visualize subjective experience with reference to other domains of experience, mostly sensorimotor domains of incoming sensory experiences and our own body movements. Lakoff and Johnson (1999: 46) have provided a logical account for establishing this metaphoric system based on two integrated theories. The theory of conflation explains the rise of primary metaphor: "For young children, subjective experiences and judgments … and sensorimotor experiences … are so regularly conflated--undifferentiated in experience--that for a time children do not distinguish between the two when they occur together". For example, the metaphor "affection is

warmth" is formed between the "subjective judgment--affection, and sensorimotor domain--temperature, by the primary experience: feeling warm while being held affectionately" (ibid. 50). The theory of conceptual integration (Fauconnier and Turner 2002) works as an appropriate theory to describe how rich source domains are used in combination with primary metaphors. Advertising, consequently, is generally based on primary metaphors, but it also brings up secondary ones through a creation process. So the image schematic metaphor near-far in: The good news is we've got a huge source of alternative energy all around us. It's called conservation (figure 3), focuses on the axiologically-loaded positive charge of objects around us. So the secondary metaphor: conservation is near, would come naturally. In this example, the marketeer also refers to the big-small schema interacting with near-far to eventually reinforce conservation as a key context-related value.

3.4.1.4. Key value: RENOVATION

This context-dependent value is strongly supported by visual metonymies and image schemas and a valuable number of examples. In broad terms, it is the axiological and conceptual mapping of the cycle schema, but not the only one. For instance, in figure 9, this value is introduced by a metonymy-based metaphor: the visual metonymic source: STEEL (BRIGHT STEEL STANDS FOR RENOVATION) (BUILDING BRIGHTNESS) implements the visual metaphor BUILDING (CONCERT HALL) BRIGHTNESS IS BRIGHT STEEL. The central picture, The Disney Concert Hall in Los Angeles, is the objective representation of a successful application, but adding "brightness" to symbolize the rosy future of recyclable steel. So the metonymy above interacts with the attribute image schema: dark-bright. This schema is inverted to be conceptualized as BRIGHT IS GOOD. Another picture represents the flight path of a boomerang (figure 9), so recycled materials may return to the starting point like a boomerang. This metonymy obviously interacts with the cycle image schema so that renovation is eventually conceptualized as a cyclical experience. In figure 8 the advertiser has also used a visual metonymy to indicate that the roots suggest a safe environment, they feed the tree which is the consequence of recycling new steel.

The metonymy-based metaphor in figure 10 interacts with the pile schema. The image of a pile of forceps stands for (forcibly) bringing human beings to life which in turn maps onto the idea of (caused) renovation. Doctors "give life" to patients. Recycled material "gives life" to the world. The Pile scheme emphasizes renovation. If doctors use a lot of recycled material they will also "give life" to the world[3]. In figure 12 the iconic letter U in the trade name SUEZ is written as if it were a smile. People in the picture are also smiling as they walk along the street to match this idea. Other metaphorical references to the energy supply or recycling are represented by the illuminated street lamp, the fountain (where a child is drinking water) or the rubbish left in a wastepaper basket. Renovation is conceptualized as a symbol of happiness. As well we can see a human quality is given to the world in order to refer to renovation and diverse types of energy: responsibility.

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[3] In fact, MORE IS UP is linked to the pile schema in figure 10, because it implies quantity: there occurs an increase in the quantity of the objects or the substances added up to the pile and verticality: as quantity icreases, there results in increase in the height of the pile. There exists a "natural" metonymic relationship between casuse and effects.

source	stands for	target
bright steel		building brightness (figure 9)
journey beginning and ending at the same point		renovation (figure 9)
the roots of a tree		safe environment (figure 8)
a pile of forceps		bringing human beings to life (metonymy-based metaphor) (figure 10)
smile		renovation (figure 12)
company		workers (metaphtonymy) interaction between an ontological metaphor and a metonymic concept) (figure 12)
the world		the responsible people that inhabit the world (figure 12)

Table 9. Visual metonymies

The positive axiological load of renovation is strongly supported by the cycle image schema, as shown by numerous instances:

Recycling and redeveloping 95% of our by-products. (figure 8)

Reusing our by-products. (figure8)

Buildings made from recycled materials. (figure 9)

Stainless steels contain 60% recycled material. (figure 9)

When the building is eventually demolished, the stainless steel will be recovered, recycled and returned to service. (figure 9)

By means of this schema, renovation is conceptualized as a cyclical experience (figure 9). The scale schema also stands for renovation, but fewer examples support it:

Stainless steel: one of the world's most recycled materials. (figure 9)

Wind energy is one of the cleanest, most renewable power sources. (figure 13)

4. FINAL COMMENTS AND CONCLUSIONS

The following ideas and conclusions emerge from the previous analysis:

Advertising discourse is a highly specialised language with a series of characteristic linguistic, pragmatic and functional aspects. Previous research in cognitive semantics has demonstrated that cognitive tools such as metaphor and metonymy could play an extremely important role in advertising strategies, both independently or in interaction patterns. It is also particularly relevant the frequency of metonymically grounded metaphors and the interaction between metonymies and image schemata. Consequently, at the interface of cognitive semantics and the axiological dimension, plausible evidence has been provided for axiologically loaded positive values activated in the printed eco-advertising discourse samples: energy saving, conservation, (impact) reduction and renovation.

Following Forceville, the metaphors used in the selected corpus are basically verbopictorial multimodal and, on most occasions, context-dependent. The most representative domains to convey the eco-values mentioned above are PERSON and FUTURE. The former is presented in relation to human progress, search for happiness and the world as the place or container where people live. So the primary metaphor HAPPY IS UP and the metonymies CONTAINER FOR ITS CONTENT and FACES STAND FOR PEOPLE are cognitive tools to support this domain. (Impact) reduction is the eco-value where the concept PERSON is more influential. As to the latter, the FUTURE domain is more common in energy saving and also in (impact) reduction. Probably, the publicists are consciously or unconsciously influenced by the primary metaphor FUTURE IS UP. In other words, we (as human beings) could look forward to a better future if we take into consideration the environmental impact of our actions.

With regard to image schematic metaphors and the way they interact with metonymies, the sample has provided examples for space (in-out, centre-periphery, near-far, front-back), cycle and attribute (big-small, dark-bright). It is worth noticing how "small" is converted into a positive value in this context. In the same vein, the metaphor LESS IS GOOD or REDUCTION IS GOOD, paradoxically, is conceptualized as a clearly appreciative schema on a positive-negative scale. On most occasions, in Western culture, MORE IS UP (GOOD) and LESS IS DOWN (BAD) are well grounded in our experience.

With reference to the use of colours in the adverts, blue and green dominate the spectrum. The first is commonly linked to clean air, purity and a pollution-free world and the second one is a symbol for life, vegetation, hope (for change) and the icon of ecology. Other colours such as red or yellow are connected to the power of energy, and white which also represents purity.

In conclusion, cognitive metaphors, metonymies, image schemas and colours might be assessed as persuasive tools and resources to attract consumers or project a good corporate image of the advertised companies, stressing their benevolence, despite the fact that they belong to production sectors which are generally involved in highly polluting activities. In fact, since the 90s up to the present day, metaphors are being consciously used by advertisers to reach that objective (Delbecque and Leuven, 1990; Zaltman and Coulter, 1995). In addition, the role played by image schemas in this persuasive context is very important, although it is an area which has not yet been sufficiently explored and needs further research (Gibbs and Colston, 2006).

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Appendix 1

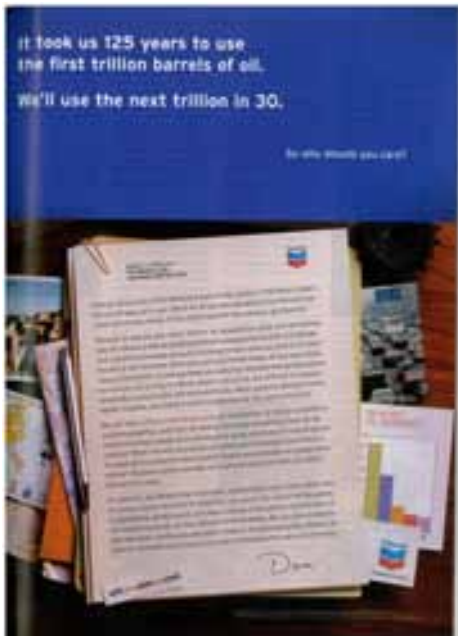
Figure 1

Figure 2

Figure 3
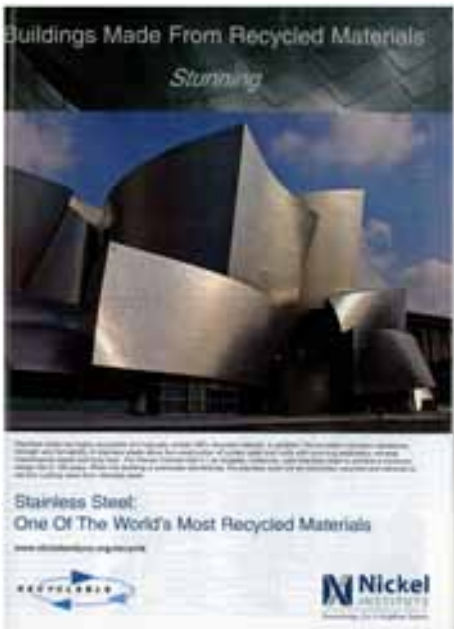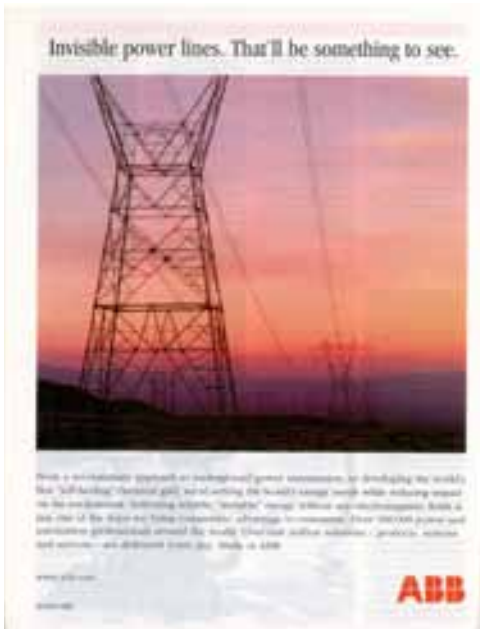

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

Figure 10

Figure 11

Figure 12

Figure 13