Abstract

Although much is known about the importance of using visual aids in the foreign language classroom, awareness of what relationship these images have with the text and how they provide teaching opportunities for the lesson is severely limited. In this article, I first review research that assesses how images are used in language learning textbooks. Research points out for the need to find ways to use images in more pedagogically meaningful ways. One potential area that needs to be further explored, as a possible way to accomplish this, is the use of visual metaphors. Metaphors are an essential part of written and spoken language, but also extend to other modes like images (Lakoff & Johnson, 1980; Forceville, 1996). I then address previous research into pictorial and multimodal metaphors. Finally, I argue that using these types of visual metaphors in a language-learning context provide learning opportunities for the students to discuss social issues and also enhance their creative and critical thinking skills. In summary, I present a model that outlines the process of creative and critical thinking used for interpreting visual metaphors.

Keywords: Visual metaphor, multimodality, ELT textbooks, English

Introduction

Foreign language teaching material often utilizes images as a way to facilitate the comprehension of the text within the unit. The visual cues act as a scaffold by providing the learner a familiar and concrete reference to a more unfamiliar verbal text. Since the 1960s when Corder (1963) expressed "the importance, indeed the indispensability, of visual aids in the teaching process" (p. 82), images have become an essential part of ELT (English Language Teaching) textbooks. This visual component supports the learning process in numerous ways, such as directing attention to the topic and motivating the learners by making the language more accessible and stimulating. Increasing the number of potential pathways to learning is one of the fundamental goals for teachers and pairing visual imagery with linguistic text is one possible route within the foreign language classroom.

However, there has been scant research that directly looks at the role of images within ELT textbooks and possible ways to use more effective images in the classroom (for a few exceptions see Guo & Feng, 2015; Hill, 2013; Weninger & Kiss, 2013). Weninger and Kiss’s (2013) study, which looked at the role of culture in ELT textbooks, found that the semiotic relationship between the text and image to be "related through deictic contiguity" whereby "one points to the other" (p. 704). They argue that the relationship between images and text are insufficiently used
for developing critical thinking in foreign language learners. Likewise in Hill’s (2013) study, which looked directly at how a set of British ELT textbooks used images as opportunities for learning and to develop the learners’ inner meaning for the topic, found that the images fail to do this and appear to be used simply for decorative purposes.

The importance of images to learning is undeniable, but finding ways to better utilize them in the language classroom, whereby they do not simply reinforce the linguistic text and emphasize linguistic competence, is a complicated matter. Weninger and Kiss (2013) emphasize that “Images need to be more than mere visual reinforcement or space-fillers. They need to be used as icons or symbols of things in their own right, as the explicit focus of attention in a meaningful pedagogic task” (pps. 710-11). One way that images could be used within the lesson as a pedagogical task is using visual metaphors. In this paper, I first discuss metaphor and then proceed to extend metaphor beyond language and into the visual mode in the form of pictorial and multimodal metaphors. Finally I discuss how these visual metaphors could be used in pedagogical tasks that promote students’ critical and creative thinking skills.

From verbal to visual metaphors

Metaphor is a crucial part of language (Lakoff & Johnson, 1980). Metaphor entails a mapping from one element (the vehicle or source domain) to another element (the topic or target domain). Elements between the source and target domains are first matched and then properties from the source are mapped onto the target, thereby providing a certain amount of conceptual structure to the target domain. Table 1 provides an outline for the following novel metaphor, “therapy is an archeological dig” and how elements are matched and then mapped from one domain to the other. It should be noted that this mapping goes from the source to the target rather than the other way round and this proceeds unidirectionally. So this mapping from the source onto the target consequently transforms the target and how we think about it. Therapy is now partly construed as an act of digging into the past to find some memories that are buried and might provide some insight to better understanding the individual. Moreover it provides ample teaching opportunities to expand students’ knowledge of these two semantic domains and also the possibility of creating new and deeper understanding of the target domain. For instance, memories are not complete and photographic recollections of the past, but probably are more accurately viewed as piecemeal that are assembled like shards of pottery.

Table 1. Features mapped from source to target in a verbal metaphor

<table>
<thead>
<tr>
<th>Source: Archeological Dig</th>
<th>Mappings</th>
<th>Target: Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archeologist</td>
<td>→</td>
<td>Therapist</td>
</tr>
<tr>
<td>Archeological Site</td>
<td>→</td>
<td>Therapist’s office</td>
</tr>
<tr>
<td>Ancient Culture</td>
<td>→</td>
<td>Patient</td>
</tr>
<tr>
<td>Object: Ancient relics</td>
<td>→</td>
<td>Past Memories</td>
</tr>
<tr>
<td>Means: Dig, unearth</td>
<td>→</td>
<td>Communicate</td>
</tr>
<tr>
<td>Goal: Discover more about this ancient culture</td>
<td>→</td>
<td>Goal: Discover more about the individual</td>
</tr>
</tbody>
</table>

1 The terms “topic” and “vehicle” come from Richards (1936) but nowadays when using a conceptual metaphor framework to discuss the two elements within a metaphor, “target” and “source” are commonly used, so for the rest of this paper, I will use these terms.

2 This metaphor comes from a study by Cardillo, Watson, Schmidt, Kranjec, and Chatterjee (2012), the explanation of the mapping is mine.
Metaphors intentionally violate a semantic category, as can be seen in the above metaphor, and this intentional violation is really the heart of creativity, too. For as Miall (1987) suggests “the value of research on metaphor lies in the fact that metaphor shows on a small scale all the principal features of the thought processes that are most significant in creativity” (p. 82). A novel metaphor combines two distantly incongruous, but sufficiently similar concepts together, in a meaningful way whereby new understandings emerge. Therefore a metaphor creates a certain amount of tension between the two elements by way of semantic distance, but at the same allows for a certain number of relations to be found between the two elements.

This above outline of a metaphor nonetheless is an example of a verbal metaphor, and consequently does not rely on any visual element. The cognitive linguistic view of metaphor claims that metaphor is only derivatively a linguistic tool and primarily is a cognitive tool (Lakoff & Johnson, 1980). Under this approach, metaphors also then appear in various nonverbal modes such as pictures (Forceville, 1996) and gestures (Cienki & Müller, 2008). In addition, researchers have recently recognized that communication and the construction of knowledge involve more than language and need to be approached from a multimodal perspective (Jewitt, 2009; Kress & Van Leeuwen, 2001). This approach emphasizes the need to be attentive to “the full range of communicational forms people use – images, gesture, gaze, posture and so on – and the relationship between them” (Jewitt, 2009, p. 14). Visual metaphors have the potential to provide the language learners opportunities to engage creatively and critically with the lesson, as well as, developing a deeper relationship with the text.

Since novel metaphors deviate from the familiar, this makes them a powerful tool in the world of advertising as a way to attract consumers and garner interest in the product (Forceville, 1996). Interest arises in situations that optimally involve novelty and challenge, prompting the viewer to explore and engage in this new and unfamiliar situation (Silvia, 2008). Visual metaphors are so widespread in advertising that some contend that they are “the very heart of the basic communication form used in modern advertising” (Leiss, Kline, & Jhally, 1986, p. 181). Graphic designers often use the techniques of swapping, merging, juxtaposing elements to create a visual metaphor in an advertisement (Kaplan, 2011). Pictorial metaphors (a static visual metaphor that is conveyed using a picture) in advertisements are one method to arouse interest in an idea or product and visually communicate in a compact way a message to the viewer that is vivid, suggestive, and thought provoking. Forceville (1996) distinguished three types of pictorial metaphors (MP):

- MP1s or the “context” variety are pictorial metaphors where only one term of the metaphor is present and the second term has to be interpreted from the context of the image.

For instance, Forceville (1996, p. 109-113) provides the example of an advertisement by Dunlop3, whereby the tires in the ad appear to be life buoys or more precisely life buoys are substituted in the place where tires typically appear, so it creates the metaphor OUR TIRES ARE LIFE BUOYS. Here the salient features of life buoys are projected onto this brand of tires such as the safety and security they provide the driver, especially on wet roads. Moreover a number of designers working for the anti-smoking campaign have developed a variety of ads that are based on the following metaphor, CIGARETTES ARE BULLETS. In these ads, cigarettes are in the cartridge of a gun (see figure 1). Substituting cigarettes for bullets results in a “colligational anomaly” (Feng & O’Halloran, 2013), since cigarettes are not typically loaded into the cartridge of a gun. Although cigarettes and bullets share certain apparent physical similarities such as size and shape, it’s their relational structure, which is most important and strengthens the aptness of the metaphor. Gentner (1988) has shown that adults have a preference for relational metaphors, as well as, judging them to be more apt and focusing more on their relational structure than attributional metaphors (or metaphors that simply rely on mere appearances, e.g. “the river is a snake”). It is the relational

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structure between cigarettes and bullets that purposely directs the viewers’ attention to the dangers of smoking. In this metaphor, CIGARETTES ARE BULLETS, cigarettes adapt attributes and salient features of bullets, namely the potential of being killed by them or killing someone else with them. Table 2 shows the mapping of this relational structure from the source (bullets) to the target (cigarettes) and it should be noted that only selected features of the source are mapped.

Table 2. Features mapped from source to target in a pictorial metaphor

<table>
<thead>
<tr>
<th>Target</th>
<th>Source</th>
<th>Shared feature(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIGARETTES ARE BULLETS</td>
<td></td>
<td>shape</td>
</tr>
</tbody>
</table>

Mapped feature(s)

- Dangerous, harmful, deadly
- Made of metal
- Has a pointy tip
- ...

• **MP2s** are a second type of pictorial metaphors, more recently referred to as a “hybrid” variety where both terms of the metaphor are present within a single image.

For instance, Forceville (1996, p. 126-128) provides the example of an ad where the earth is shown merged or blended together with a burning candle creating a hybrid image and the metaphor, EARTH IS A CANDLE. In another example, to return to ads by tire companies, Toyo uses a pictorial metaphor that graphically blends or merges their tires with the legs of an octopus, thus creating the metaphor, OUR TIRES ARE OCTOPUS LEGS. The vividness, surprise, and unfamiliarity of the image engage the viewer to map certain elements from the source domain (the octopus) to the target domain (the tire), such as the gripping power of the tentacles.

• Pictorial Similes are a third example and occur when the two terms of a metaphor are juxtaposed together and appear related by contiguity.

For instance, Forceville (1996, p. 136-145) provides the example of an ad of a butterfly placed side by side with a watch. The watch being the primary subject suggests the simile, WATCH IS LIKE A BUTTERFLY, and one can interpret this to mean that the watch is elegant, light, beautiful, and so on.

The before mentioned varieties of metaphor are typically called monomodal metaphors for the two concepts within the metaphor are contained within a single mode, in this case, the visual. On the other hand, metaphors may also be multimodal, whereby the source and the target concepts appear in separate modes, usually one in the verbal and the other in the pictorial mode (Forceville & Urios-Aparisi, 2009). The Economist, a popular magazine that covers economic issues, makes extensive use of metaphors for the cover art of its magazine. These cover art images often consist of multimodal metaphors where a written caption expresses the target and the image then provides the source for the metaphor (see Figure 2). For a very simple and conventional example, the June 13th 2009 cover has the caption, “debt” and the image of a large concrete ball and chain attached to an infant. This is based on a primary metaphor, DIFFICULTIES (debt) ARE BURDENS (a heavy weight). On the cover of the Oct. 7th 2006 cover, there is a more novel multimodal metaphor, TALENT (from the text) IS A PEARL (from the image). Here a pearl, which has the features of being an object that is rare or difficult to find, is mapped onto human talent. A slightly more complex example is from the Aug. 13th 2011 cover, which is a manipulation of a 1632 painting by Rembrandt called ”The Anatomy Lesson of Dr. Nicolaes Tulp.” Yet in this modification, the text provides the target, “economy” and the source is the “cadaver” lying on the table, so this creates the metaphor, THE ECONOMY IS A SICK OR DEAD BODY (CADAVER). In fact, a second multimodal metaphor emerges from the image where the doctor proclaims to be a “central banker” holding a defibrillator, creating the metaphor, THE CENTRAL BANKER IS A DOCTOR and has the potential expertise to revive this dead body (the economy). These examples of cover art from the Economist provide ample material to discuss various financial topics such as the financial crisis in an English for Specific Purposes class (see de los Ríos, 2010).

Debt is a heavy weight (June 13th 2009)  
Talent is a pearl (October 7th 2006)  
Economy is a cadaver (August 13th 2011)

*Figure 2. Examples of multimodal metaphors from the Economist cover art.*

In this section, I have provided background from a cognitive linguistic perspective to the different ways that metaphors may appear in visual images. In the next section, I will explore in more detail how they can be used as visual aids in the language-learning classroom to promote critical and creative thinking among the students.
Integrating visual metaphors in the language learning classroom

To return for a moment to the social awareness antismoking campaign, the images used in this campaign creatively extend beyond guns, as the primary source domain. Other pictorial metaphors in this campaign include an image of a person who appears to be stuck in a deep hole in the ground, which is elongated like the shape of a cigarette. The caption reads SMOKING IS A TRAP. So here the verbal metaphor provides some framing to the pictorial metaphor. Another example is a hybrid metaphor that blends a clock that appears to be a time bomb with a fuse made of cigarettes. This example emphasizes the destructive force of cigarettes. Another example is a simile variety of a pictorial metaphor where a can of bug spray and a dead insect are juxtaposed next to a pack of cigarettes and a man who appears to be in a similar death-like pose as the insect. Each new source domain projects slightly different features onto the target domain of cigarettes and smoking (see Table 3). These types of images could be used in a classroom as a warm-up activity to discuss important social issues like health and well-being, the destructive force of cigarettes, and so on.

<table>
<thead>
<tr>
<th>Figure</th>
<th>Target</th>
<th>Source</th>
<th>Mapped feature(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CIGARETTES ARE BULLETS</td>
<td>Dangerous, harmful, deadly</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>SMOKING IS A TRAP</td>
<td>Difficult to escape from, deceptive, lost of freedom</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>CIGARETTES ARE TIME BOMBS</td>
<td>Unpredictably fatal, destructive, harmful to those around you</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>CIGARETTES ARE BUG SPRAY</td>
<td>Poisonous, toxic, lethal, deadly</td>
<td></td>
</tr>
</tbody>
</table>

Another powerful social awareness campaign ad that could provide additional visual imagery for a language classroom is one developed by the World Wildlife Federation (WWF) and the appeal to protect the environment (see Figure 3). In this ad, there is a photo of a fertile landscape with a group of trees in the middle. The group of trees has an image of a pair of lungs superimposed upon it. So one likely interprets the metaphor as, TREES ARE LUNGS. Certain features of lungs such as, organ for breathing, source of oxygen for the organism, and life are mapped onto the trees. Yet this metaphor creates a larger analogical structure, whereby the earth is viewed as a living organism and just like lungs provide humans with oxygen, so too, do trees provide oxygen (i.e. life) for the earth. The evaluative force of this ad though lies with the deforestation section in the bottom right of the picture, which in fact creates a new metaphor, DEFORESTATION IS A CANCER.

Figure 3. WWF: Deforestation & lungs campaign (Advertising Agency: TBWA/Paris, 2008).
This image is sufficiently open-ended insofar as to encourage the viewer to use interpretive problems solving and analogical thinking skills. Below are some responses that Japanese students wrote when they were asked to interpret this image in English. Most of them observed the metaphor and made the analogy between the physical resemblance of the tree’s shape and the shape of human lungs. They also saw the relational similarity between the two and how lungs provide oxygen, so humans can live and trees provide oxygen, so the earth can live, which in fact also allows humans to live.

- "Forest plays a role of the lung for the earth."
- "Now, destruction of forests destroys the lung of earth."
- "This forest can be seen as a pair of lungs. The lungs are necessary for humans to live. So deforestation is dangerous for us to live."
- "The forests looks like lungs and the river seems like blood vessels."

Other students include the extended metaphor; deforestation is a cancer, into their interpretation.

- "Forest means lung. Deforestation means illness of lung."
- "It is like a cancer of lung."
- "People break nature. Human’s lung is sick."

While other students picked up on the strong evaluative stance of this ad.

- "The earth cannot breathe and might die because human beings destroy nature. Deforestation is not good for Earth"
- "This forests show the lungs. Right lung is cut down. So, this picture send message that forests make air which you breath for you."

The responses are very open and emerging as the individual students look more deeply at this visual metaphor. The strong evaluative stance of this metaphor is probably the desire of this organization, which likely is to enhance the emotional response to deforestation by connecting it to cancer. Such an image, to return to what Weninger and Kiss (2013) advocated for in regards to images in ELT textbooks, is the explicit purpose of some pedagogical task. This image could be used as a brainstorming activity for a lesson on environmental issues or global warming. In addition, after exposing students to the structure of the visual metaphor, students themselves could then creatively design their own social awareness campaigns on some topic they feel strongly about. So these types of social awareness campaigns that frequently use pictorial or multimodal metaphors have the potential for cultivating creative and critical thinking skills among the students.

The development of a model of critical and creative thinking for visual metaphors

Critical and creative thinking should be viewed as complimentary processes that overlap and share many features and not in opposition to each other. For instance, critical thinking is often defined in relation to the upper three levels of Bloom’s taxonomy of education objectives (analysis, synthesis and evaluation) (Ennis, 1993). On some adapted models, synthesis actually is replaced with the label creativity. To analyze a mono/multimodal metaphor, the interaction between these cognitive abilities is evident, for one naturally has to both synthesize the two incongruous concepts together (e.g. guns and smoking) and evaluate its persuasive and rhetorical force in order to analyze the metaphor. While the creative process proposed in the literature follows a very similar model, encompassing four phases: problem analysis, ideation, evaluation, and implementation (Zeng, Proctor, & Salvendy, 2011). Integrating these models together, I propose a creative/critical thinking model for visual metaphors (see Figure 4). To critically and creatively think about a visual metaphor, one has to first analyze the image and interpret it as a metaphor and then identify the two domains. After recognizing the two domains, one then has to use cognitive flexibility, which is the ability to deal with uncertainty and incongruity, and divergent thinking, which is the ability
to see the multiplicity of possible meanings that a concept has, in order to combine and organize these two concepts and find some shared relations between them. Once these relations are found, one has to then map the features from the source to the target domain. The final process is to evaluate the metaphorical meaning by being able to summarize it and consider the evaluative and persuasive force of the metaphor. This model suggests that integrating visual metaphors into the language-learning classroom has the potential to enhance learners’ creative and critical thinking skills, which are crucial skill for the 21st century (Toynbee, 1964; Florida, 2002; Tan, 2000).

Conclusion

This has been a very brief exploratory inquiry into visual metaphors and how they could be used within the language classroom. They have the potential to engage the learners and also provide meaningful pedagogical tasks with ample learning opportunities. As one possibility, I provided a few examples using advertisements that are part of social awareness campaigns and cover art, but there are numerous other topics that could have been used such as pictorial metaphors found in newspaper cartoons (Bounegru & Forceville, 2011; El Refaie, 2003; Schilperoord & Maes, 2009).

Further research needs to look at student interest levels between pictorial metaphors and typical ELT textbook images. This type of research could explain what role visual metaphors have on students’ attention and engagement with the learning material, which would provide further validation to using visual metaphors in the classroom. As the aim of a language teacher is to provide learners opportunities to develop their linguistic and cognitive skills, visual metaphors may provide such opportunities.

Figure 4. Model of creative/critical thinking for visual metaphors.
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References


