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METAPHORIC COMPETENCE AND THE ACQUISITION OF FIGURATIVE VOCABULARY IN FOREIGN LANGUAGE LEARNING

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Successful vocabulary teaching in the English as a foreign language classroom has to surmount many obstacles, such as the decrease in the rate of acquisition of new words by EFL students once a high level of proficiency is achieved, the students' frustration at their inability to express their own thoughts adequately or plain boredom with the learning of lists of vocabulary items (MacArthur, 2010). In this article, we follow Danesi's (2008) claim that the use of figurative language helps overcome some of these hurdles by providing the means to expand the learners' vocabulary.

The goal of this article is to highlight the importance of the role of metaphors in the acquisition of figurative vocabulary by learners of English in two contexts, an EFL classroom and a CLIL classroom. Firstly, we report on an experimental study where the consequences of developing

conceptual metaphor awareness for figurative language learning in the EFL classroom are studied. Results show that, compared to the traditional translation-based approach, systematic presentation of the target figurative expressions on anger around the two conceptual metaphors they instantiate improves comprehension and spontaneous retention of the target vocabulary. Secondly, we implement the metaphor approach in the design of a lesson plan for a class of Philosophy and Citizenship where the medium of instruction is English (CLIL). We show that the metaphor awareness is instrumental in the accomplishment of two objectives: the learning of new figurative vocabulary in English and the understanding of the subject-matter targeted in the lesson plan.

Key words: *figurative language learning; conceptual metaphors; motivation*

El éxito de la enseñanza del vocabulario en la clase de inglés como lengua extranjera está condicionado por factores como la disminución del índice de adquisición de palabras nuevas por parte de los estudiantes de inglés como lengua extranjera cuando alcanzan un nivel alto de competencia en la lengua, la frustración de los estudiantes por no poder expresar sus pensamientos de manera adecuada o el aburrimiento asociado a la memorización de listas de palabras nuevas (MacArthur, 2010). Siguiendo a Danesi (2008), defendemos que el uso del lenguaje figurativo puede ayudar a superar algunos de estos obstáculos al tiempo que contribuye a la ampliación del vocabulario.

El objetivo de este artículo es destacar la importancia de las metáforas en la adquisición del lenguaje figurativo en dos contextos: una clase de lengua inglesa y una clase de AICLE. En primer lugar presentamos un estudio experimental en el que se consideran las consecuencias del uso de las metáforas para la adquisición de un grupo de expresiones figurativas sobre el enfado en una clase de inglés. El estudio muestra que el grupo en el que las expresiones fueron explicadas atendiendo a las metáforas conceptuales que las caracterizaban obtuvo mejores resul-

tados en la comprensión y retención espontánea que el grupo en el que se utilizó el método tradicional basado en la traducción. A continuación implementamos el uso de la metáfora en el diseño de una lección para la asignatura de Philosophy and Citizenship en inglés (AICLE). Mostramos que este enfoque consigue dos objetivos: ampliar el vocabulario figurativo del alumnado y mejorar la comprensión del contenido asociado a la unidad docente de la asignatura.

Palabras clave: *aprendizaje del lenguaje figurativo, metáforas conceptuales, motivación*

1. Introduction

EFL teachers need to address many obstacles that hinder successful vocabulary teaching in the English as a foreign language classroom, such as a noticeable decrease in the rate of acquisition of new words at the more advanced level, the students' frustration arising from their inability to put into words their feelings and thoughts precisely, or boredom resulting from rote learning of lexical items from a list (MacArthur, 2010). The use of figurative language, namely, a word or a string of words with non-literal, idiomatic meaning (e.g. *she is going to hit the ceiling, he had prepared a solid defense to counteract my attack)*, helps overcome some of these hurdles by providing the means to expand the learners' vocabulary and making their language more expressive and closer to their feelings (Danessi, 2008). Yet, with the exception of some specific contexts (Chapetón, 2010), students' talk is very seldom figurative (Lazar, 1996).

The aim of this paper is to argue for the relevance of an awareness of metaphors and grouping of figurative expressions according to metaphorical themes for the acquisition of figurative expressions by learners of English in two contexts: an EFL class (English as a foreign language) and a CLIL class (Content and Language Integrated Learning). Firstly, we report on an experimental study of the effectiveness of working on metaphor awareness for the comprehension and retention of figurative language on anger in two groups of first-year Baccalaureate students in Spain. We compared the students' comprehension and retention rates of the new expressions which had been presented in two different ways, namely, the traditional or translation-based approach and the cognitive approach based on the systematic explanation of the target expressions around two conceptual metaphors. Secondly, we illustrate the implementation of the metaphor approach in a CLIL setting, where the medium of instruction is English. In particular, we offer insights into the role of metaphor to the teaching of an array of figurative expressions used to talk about the mind in English in the context of a class of Philosophy and Citizenship.

In the next section we provide a brief overview of figurative language learning and the need to develop students' metaphoric competence and students' knowledge of figurative language for language comprehension and production.

2. Figurative Language Learning and Metaphoric Competence in EFL

Figurative language may be learned in the EFL classroom in a number of ways. For instance, we can focus on the literal meaning of the key word which is used figuratively (e.g. *joint* in *joint account*) (Boers & Lindstromberg, 2012, p. 96). We can also resort to the mnemonic potential of the expressions to be learned (Boers & Lindstromberg, 2012 [for a review]). For example noticing how sounds in many formulaic expressions are repeated, such as alliteration (e.g. *play a part*), rhyme (e.g. *wear and tear*), and assonance (e.g. *turn a blind eye to*) (Boers & Lindstromberg, 2012, p. 95) helps FL learners retain these expressions. It is also possible to use the property of evoking a mental image that some figurative expressions have (e.g. *she hit the ceiling*) as another mnemonic tool. In fact, according to Boers and Lindstromberg (2012, p. 96) using mental imagery has become part of pedagogic approaches to idioms, inspired by ideas from the cognitive semantics school of thought (e.g. Boers & Lindstromberg, 2005; Lakoff, 1987). Furthermore, under cognitive semantic approaches, the imagery of idioms and figurative expressions is utilized in the classroom to show learners that figurative expressions may be motivated by underlying conceptual metaphors or metaphoric themes, as in the case of the expressions *Your claims are indefensible, He attacked every weak point in my argument* and *His criticisms were right on target,* which are motivated by the conceptual metaphor, ARGUMENT IS WAR (Lakoff & Johnson, 1980).

The ability to understand and produce metaphoric/figurative language in the foreign language (Danesi, 1993, 2008) has given rise to the

concept of metaphoric competence, which is part of the more general notion of 'conceptual competence' or 'conceptual fluency': "the ability to express oneself in the L2 while utilizing the conceptual system of the L2, rather than relying primarily on the conceptual system of the L1" (Danesi, 2008, p. 243). Deficient or insufficient metaphoric competence may impair learners' receptive and productive skills in the FL. Studies have shown that learners who are unable to understand 17% of the metaphor related words in texts with a metaphor density of 11.7% will have problems understanding the text without external help. This is especially true in light of the fact that approximately 95% of the running words need to be known by the readers of a text in order to ensure adequate unassisted comprehension of a fiction text (Hirsch & Nation, 1992; Hsueh-chao & Nation, 2000; Nation, 1993).

At university lectures, where the density of metaphors is 10-13% and 18.3% according to Low, Littlemore, and Koester (2008) and Steen (2010), respectively, developing metaphoric competence is particularly important because metaphors are used to describe, explain, clarify, re-state, sum up, give examples and evaluate information or a given theory. However, in an experiment conducted by Littlemore, Chen, Barnden and Koester (2011) in this context, 42% of the language items non-native speakers of English had difficulty with were metaphorical. The fact that the students were familiar with 41% of the words they had had difficulties with suggests that their inability to comprehend the metaphoric property of the expressions was - to a great extent - the source of the problem.

The development of metaphoric competence is also important for understanding the news, which contains a relatively high density of metaphoric/figurative language (16.2%), or fiction, where the percentage is lower (11.7%) (Steen, 2010). In the case of the former, the need to decode metaphoric expressions and short figurative language is an additional difficulty FL learners face when dealing with this genre (Stein, Paterno, & Burnett, 2006). In fact, even advanced students can be frustrated when trying to understand TV news or newspaper headlines, and this has led

to an increasing number of teaching materials designed to teach how to decode the metaphoric words in headlines (Al-Jarf, 2005) such as *Germany's Georg Hackl and Italy's Armin Zoeggeler set for a duel* (Kekis, 2002), where the word *duel* is a metaphor for the competition between Olympic luge competitors Georg Hackl and Armin Zoeggeler.

Mastering figurative/metaphoric language, that is to say, the use of figures of speech such as metaphors, metonymies, hyperboles, etc. for the sake of comparison, emphasis, clarity or freshness, helps FL learners develop their receptive fluency as well as their productive fluency. But the presence of figurative or metaphoric language in FL learners' production is normally conditioned by the nature of the tasks to be carried out by the learners. Highly communicative and cognitively demanding tasks lead learners to 'push production' (Swain, 1995) of figurative language. Accordingly, students are more compelled to use and exploit metaphoric themes while writing/talking about abstract topics and tasks requiring the selection of information, justification of beliefs and reasoning such as argumentative discourses (Brown, Anderson, Shillcock, & Yule, 1984; Prabhu, 1987).

The problem is that, more often than not, students' productions of linguistic metaphors do not sound native-like, and, instead of conveying their ideas with precision, students end up making errors that hinder their communicative goals. Some of the inaccuracies in non-native speakers' speech may be dealt with by understanding problematic linguistic phenomena in terms of the underlying metaphors that motivate them. For example, the works by Boers and Demecheleer (1998), Kövecses and Szabó (1996) and Lindstromberg (1996, 1999) provide effective material to teach prepositions, which account for 79.3% of misused metaphorical items (Chapetón, 2010). However, caution is required regarding the use of the metaphor approach for the *production* of idiomatic language, as the existence of some problems has been noted (Boers, 2011). Firstly, there is no one-to-one correspondence between a particular conceptual metaphor and its linguistic instantiations, and this implies that learners cannot

deduce from the metaphoric concept the corresponding (grammatically correct) linguistic form. Secondly, cross-linguistic and cross-cultural variation in metaphors can induce students to make incorrect transfers from their native language and produce grammatically and semantically inappropriate sentences. This obstacle may be overcome by analysing and understanding common and cross-cultural differences in metaphor use (Boers, 2003; Kalyuga & Kalyuga, 2008; Kövecses, 2003). Thirdly, the use of visuals and imagery which frequently accompany the explanation of metaphors in the classroom to facilitate understanding and retention of meaning may distract from the precise words that form the linguistic expressions. Practice in using the learned phrases and the use of structural elaboration techniques designed to help students remember the formal features of the given phrases and understand their meaning and lexical makeup may help students acquire the formal features of the target expressions (Boers, 2011, p. 254).

3. The Use of Metaphors for Figurative Vocabulary Teaching/Learning in an EFL Class: an Experiment

This section aims to contribute to the mounting evidence provided by a wide range of studies conducted in the last two decades, between 1996 and 2010, designed to prove the effectiveness of teaching methods based on the metaphor approach for vocabulary learning. In spite of some of the experiments' shortcomings identified by Boers (2011) and by some of the authors of the studies, Boers (2011) concluded that it is evident that the cognitive semantics approach to metaphor can inspire figurative vocabulary teaching techniques of proven efficacy. We intend to show that this approach facilitates the acquisition of figurative vocabulary related to anger among FL learners of English, and to contribute to empirical research in this area.

3.1. Hypothesis and Research Questions

The working hypothesis that we adopted in our study was that raising awareness of the metaphors motivating some of the figurative expressions used to talk about anger fosters understanding and spontaneous retention of these expressions among FL learners. We decided to study the semantic field of anger because it is interesting for English learners for various reasons. First, expressions about anger are quite frequent in everyday language. Secondly, they are very useful to manifest a range of emotions. Finally, many expressions used when talking about anger are metaphorical and are based on specific source domains, such as the fire domain (e.g. *Smoke was coming out of his ears; He was doing a slow burn*). We address the following two research questions:

1- Does explicit knowledge of the motivations behind certain anger idioms help learners comprehend and retain them spontaneously in the short term?

2- Are the benefits of this teaching strategy maintained in the middle term?

3.2. Participants

The subjects of the experiment are first-year baccalaureate students in a state-run school located in Navarre, Spain. The socioeconomic status of the students' families fluctuates from working to middle class. The school's language of instruction is Spanish. The study set out with 54 subjects, but 14 were excluded on linguistic grounds at the onset of the experiment in order to get a relatively linguistically homogeneous group. Thus, the students whose L1 was not Spanish or Basque and the immigrant students who had not had English classes at secondary school were excluded from the study. The remaining 40 students who finally participated in the study were all native speakers of Spanish and some of the participants also spoke Basque to varying degrees. However, since

the metaphoric expressions about anger in Basque are similar to those in Spanish, no bias in the results was expected to occur among the speakers of Basque as compared to the speakers of Spanish.

The students' English teacher confirmed the similarity in the students' proficiency level of English. The absence of outliers among the 40 participants in the statistical analysis of their second term English exam marks also suggests that there were no big differences among the students' level of competence (see the box plot in figure 1).
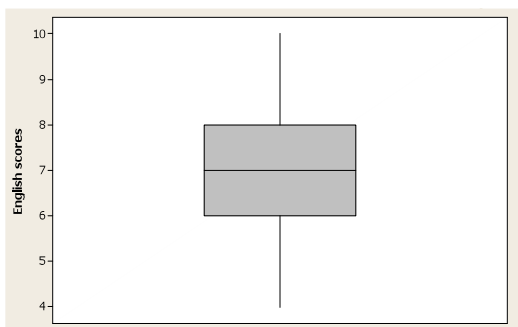

Figure 1. Box plot of the scores of the 40 participants

The 40 participants were evenly distributed into two groups: the control group (CG) and the experimental group (EG), although the CG had a higher number of female students than male students. The mean age of both groups was similar: 16.5 years for the CG and 16.8 for the EG (see table 1).

Group	Number	Mean Age	Sex	
CG	20	16.5	14 F	6 M
EG	20	16.8	11 F	9 M

Table 1. The participants

3.3. Materials and Procedure

The materials consisted of two handouts, a pre-test, a test, and a post-test which was administered two weeks after the test. The first handout was an extract from an English textbook on the subject *Political, Social and Health Education* (PSHE) equivalent to our *Education for Citizenship* and it introduced the topic of the unit and some of the new expressions that we wanted to present to the participants (see Appendix 1). The second handout, provided in Appendix 2, contained two texts. The first text was a short story written specially for this research and it included most of the target items in context. The second text was an extract from an article found in http://www.previsl.com/ing/centropsicologia/ira.asp. The students were familiar with the class material provided and had worked on the topic "Managing your emotions" with their English conversation assistant during the English classes. The target items consisted of the following figurative multiword and one-word lexical units: *to vent your anger, to smoulder, to hit the ceiling, to add fuel to the fire, to simmer down, to blow up, to have an anger outburst/to boil with anger/ to defuse, to seethe, to fume, to keep cool and to have a short fuse*. We deliberately chose expressions of varying degree of difficulty ranging from the more transparent to the more opaque expressions: the more transparent expressions were expected to be easier to acquire, while learning the more opaque expressions was predicted to be more difficult.

A pilot test was carried out with two groups of 15/16 year-old secondary school students to make sure that the amount of time required by the teacher to introduce the target items using the metaphor approach (Experimental group, henceforth EG) and the traditional approach (Control group, henceforth CG) was the same in both groups. The pilot test revealed that reading all the contents in handout 1 required an excessive amount of time, so we decided to work on two sections of the handout only: "What makes you angry" and "From mad to mean".

The actual experiment took place in a regular English class. Both groups had the same teacher. First, the students in the EG and the CG took a 55-minute pre-test which contained fifteen target items and twenty-five fillers from handouts 1 and 2 that the students had to translate into Basque or Spanish. The results of the test revealed that the students were familiar with two items, *calm down* and *to have/be in a temper*, which were subsequently discarded from the list of target items that they students had to learn in the experiment. In the next session, the teacher distributed handout 1 and handout 2 among the students. The subjects were asked to read two sections of handout 1 ("What makes you angry" and "From mad to mean") and handout 2, and write a list of all the words they did not know. In the CG the instructor proceeded as if it were an ordinary class: she provided the Spanish translation of the target items and gave the necessary explanations to ensure that everybody understood the text. Students wrote down the translation of the target items in their notebooks. In the EG the subjects read the two sections of handout 1 and handout 2 and also made a list of words unknown to them. The instructor explained the notion of conceptual metaphor in simple terms and organized the target items around two metaphors: ANGER IS FIRE and ANGER IS A (HOT) LIQUID IN A CONTAINER. This is a transcript of the explanation provided:

> There are some expressions, particularly idioms and phrasal verbs, that shouldn't be understood in a literal sense. Sometimes there is a metaphor underlying these expressions, which motivate their figurative sense. Metaphorical language is very useful when we want to talk about our mental states because it is difficult to describe our feelings in the same way we talk about physical things. Instead we can compare our feelings to a physical process and use the linguistic expressions that we would use to describe the physical process to talk about our emotions. In English, like in Basque and Spanish, anger is compared to fire, probably because both have a similar effect on us, for instance, they make us blush or they make us feel hot. Anger is also compared to a hot liquid in a container that eventually will explode, like a bomb. These comparisons allow us to associate the figurative expressions of anger in the texts of handouts 1

and 2 to one of the two metaphors: ANGER IS FIRE and ANGER IS A HOT LIQUID IN A CONTAINER.

After that, the students in the EG wrote down the translations of the target items in their notebooks.

The next step was the same in both groups. The subjects put away their notebooks and the handouts used in class, and answered the test (see Appendix 3). Whereas in some previous experiments subjects were given some time to memorize the new vocabulary items (Boers, 2000), in this case they were not because we wanted to measure spontaneous retention of the new vocabulary items. Two weeks later, the two groups took a post-test, which was identical to the first test, to explore the medium-term effects of the teaching approach (Appendix 3). Unfortunately 7 students, 4 from the CG and 3 from the EG, did not take the post-test because they had already taken their final exams and did not attend the English class that day.

### 3.4. Results and Discussion

Statistical tests were performed using SPSS. The distribution was normal for both groups. Descriptive statistics data of the test are shown in table 2. The EG performed significantly better than the CG. T-test for independent samples gave a *t* value of 3.61 and p= 0.001 (see table 4 in Appendix 4).

GROUP	N	MEAN	STD. DEVIATION	STD. ERROR MEAN
Experimental	20	5.90	1.91	0.42
Control	20	3.95	1.46	0.32

Table 2. Group Statistics for the test

It follows from the analysis of the results in table 2 that explicitly relating idioms/figurative expressions to their underlying conceptual metaphors helped learners understand and spontaneously retain the target items in the short-term.

A more fine-grained analysis of the students' performance is provided in graph 1 which contains the results for each of the lexical items.
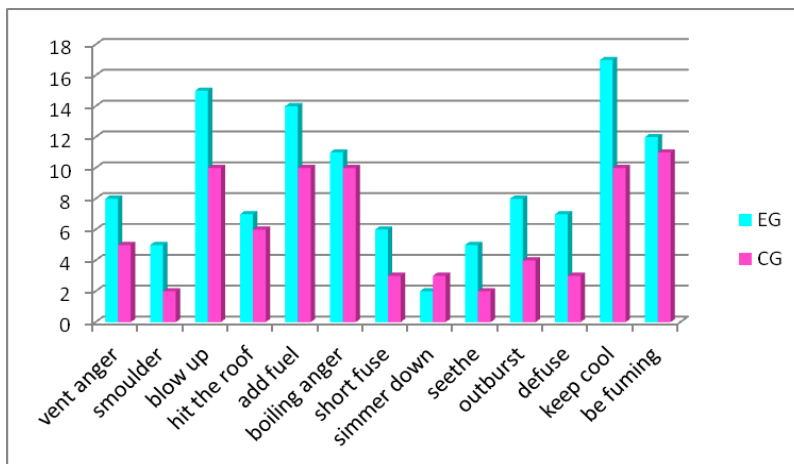
Graph 1. The EG and CG's performance in each item in the test

Graph 1 reveals similar trends in the acquisition of the lexical items in the EG and the CG. Both groups obtained their highest scores in the same items (*to blow up, to keep cool, to add fuel to the fire, fuming* and *boiling with anger*) and their lowest in the same items (*to simmer down, to smoulder and to seethe.*) The results are straightforward. The items with the highest scores are more transparent, i.e. their meanings are more predictable from the meanings of the compounds (Irujo, 1993) and they are also very similar to some Basque and Spanish expressions of anger. On the other hand, the items which were more difficult for both groups (*to seethe, to smoulder* and *to simmer down*) are rather opaque. Moreover, the meaning of these three items is similar, which may cause interference problems and present a bigger challenge for the students. Finally, one of the items, *to simmer down*, does not have an equivalent in Spanish and paraphrasing is required to explain its meaning, making it more difficult to be remembered by the students.

Graph 1 also reveals clear differences in the performances of the two groups. Firstly, the students in the EG are more successful in the understanding and retention of the new lexical items than their counterparts in the CG. The EG obtained the best results in some of the expressions which instantiated the metaphor ANGER IS A HOT LIQUID IN A CONTAINER (e.g. *to blow up*, *to keep cool*, and *to add fuel*), the only exception being *to simmer down*, which proved to be somewhat difficult for both groups as shown by the low number of correct answers it prompted. Secondly, the students in the CG obtained lower scores than the students in the EG in all the items, including the items which had also caused difficulty for the EG, namely *to seethe, to smoulder, short fuse*, with the exception of *to simmer down*. In short, we can conclude that the answer to the first research question is affirmative: the introduction of the metaphors underlying the expression of anger helped students retain the new expressions. However, a word of caution should be issued here because the better results could also be attributed to the Halo or the Hawthorne effect. This is a shortcoming that needs to be addressed in further research. Furthermore, one might be tempted to attribute the difference in the results between the EG and the CG to the difference in gender between the two groups since there were 50% more male students in the EG than in the CG as reflected in table 1. Yet, a recent study by Agustín Llack and Terrazas Gallego (2012) reports on the contradictory findings of prior research on this issue and concludes from the analysis of their own data that the relationship between gender and lexical acquisition is inconclusive.

In order to address the second research question, namely, whether the benefits of explaining the underlying metaphors for the understanding and acquisition of figurative language were maintained in the medium term, the students took a post-test two weeks after the test was first administered. Once again, statistical tests were performed. On this occasion, the tests revealed that the significant difference in means between the EG and the CG was not maintained. T-test for independent samples was run showing that *t* value is equal to 1.18 and p = 0.24 (see table 5 in

Appendix 4). Since the difference in the performances of the two groups is not statistically significant, it cannot be concluded that the metaphor awareness approach helps the spontaneous retention of the meaning of idiomatic expressions in the middle term. Descriptive statistics for the post-test are displayed in table 3.

GROUP	N	MEAN	STD. DEVIATION	STD. ERROR MEAN
Experimental	**16**	**3.43**	**1.09**	**0.27**
Control	**17**	**2.94**	**1.29**	**0.31**

Table 3. Group Statistics for the post-test

The bar-graphic of the results of the two groups in the post-test is given in graph 2.
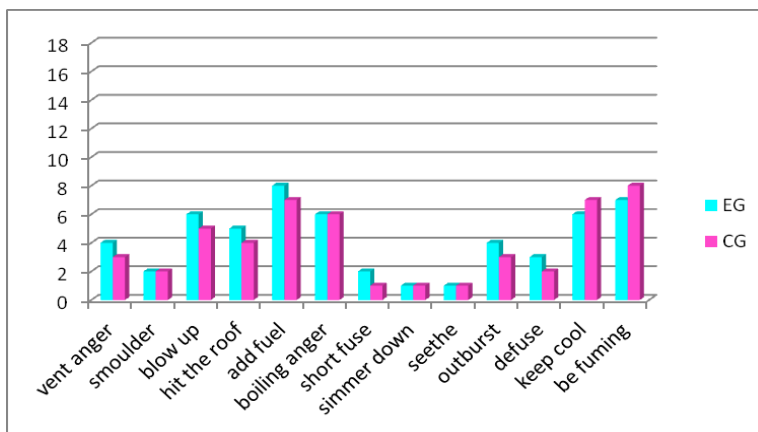
Graph 2. The EG and CG's performance in each item in the post-test

The results provided in graph 2 reveal lower scores in the post-test than in the test for all the items. This result suggests that students need reinforcement, a hardly surprising conclusion, given the amount of reinforcement and exposure learners need to acquire new vocabulary: 8

encounters with a new word according to Horst, Cobb and Meara, (1999) for the new word to be committed to long term memory and an estimate of 10 according to Saragi, Nation and Meister (1978). Nevertheless, the EG still did better than the CG in 7 items out of 13, while the CG only outperformed the EG in 2 items in the post-test. The two groups scored low in 4 items which had also obtained low results in the earlier test, underpinning the idea that difficult items need to be specially worked on and reinforced. The words that obtained better retention results in the test also had better results in the post-test (e.g. *to blow up, to add fuel, to be boiling with anger*).

3.5. Conclusions

In this experiment we tested students' understanding and retention of some figurative expressions regarding anger. Some expressions were transparent and similar to their corresponding Spanish and Basque counterparts, others were opaque. In the short term, the EG obtained better scores than the CG for both kinds of expressions. While the limited number of target items and of participants considered in this study prevents us from drawing any definite conclusions, the results we have obtained point in the same direction as the results of studies conducted by Boers (2000), Beréndi, Csábi, and Kövecses (2008, p. 65) and Kövecses and Szabó (1996), namely, that the metaphor approach facilitates the acquisition of figurative language in the short term. Interestingly enough, the students did not transfer the conceptual knowledge of their L1 to the understanding of the expressions in the FL. That is to say, the students could have used their L1 knowledge to help them understand and retain the expressions in the FL, but they did not. The fact that the same conceptual metaphors underlie linguistic expressions both in the mother language and the target language is not sufficient for the retention of new vocabulary. The students need to be made aware of the existence of conceptual metaphors underlying the target items in the FL in order to be able to use this knowledge as a learning strategy.

Certain considerations need to be taken into account. There arises the question of whether the cognitive semantics methods of teaching vocabulary are equally beneficial for all types of learners irrespective of their proficiency and cognitive style. Some authors have pointed out that more proficient learners (Gao & Meng, 2010) and learners with a holistic learning style (MacArthur, 2010) are more prone to benefit from this type of instruction than low-proficiency and analytical students. Other specific issues of no lesser importance should also be addressed (Boers, 2004, p. 228), such as the need to determine the degree of semantic transparency of figurative expressions to be suitable candidates for explicit metaphor processing, the need to establish the kind of metaphoric themes that learners should be made aware of how precise learners' categorisation of figurative expressions should be, and the amount of metaphor instruction required to obtain long-term benefits for learners' vocabulary expansion. Finally, the possible effects of the Halo and Hawthorne effects should be taken into account. Further analysis of the implementation of this methodology in the classroom is required to provide answers to some of these issues.

4. The Use of Metaphors for Figurative Vocabulary Teaching/Learning in a CLIL Class: a Lesson Plan

In spite of the positive results observed in numerous empirical studies conducted on this topic, metaphor awareness and linguistic motivation are not usually present in second language teaching materials and have not become part of the teaching practices. Some of the reasons for this absence are the difficulty of presenting metaphors in a rule-governed fashion, the reluctance to present idiomatic expressions as analyzable chunks of words as opposed to the conventional way which considered them to be unalyzable, or the lack of proficiency tests for skills connected with the recognition and use of metaphors (Littlemore & Low, 2006). Yet, in order for the cognitive metaphor theory to produce good results, it is necessary to turn this approach into a conscious learning strategy that can

contribute to the learner's autonomy (Beréndi et al., 2008. p. 78; Boers, 2004, p. 216). This section intends to fill this void by presenting a lesson plan directed to students of English, the teaching materials and the corresponding activities for the unit "English metaphors of the mind" in which the cognitive metaphor theory is implemented.

4.1. Background Information

The lesson plan we present in this section is designed for first-year baccalaureate students who are taking the compulsory subject Philosophy and Citizenship in Spain. The medium of instruction envisioned for this subject is English, therefore the general aim of the lesson plan is to combine the teaching/learning of the subject content and English as a foreign language (CLIL).

The title of the unit we have prepared is "English metaphors of the mind". The interest in the topic of metaphors of the mind for the subject of Philosophy and Citizenship derives from the fact that the history of mind-metaphors overlaps with the history of philosophy of the mind: from Plato to Ryle metaphors have been a recurrent resource for likening mental, unobservable processes to physical entities. We intend to achieve three specific goals. First, we wish to illustrate three different philosophical approaches to the understanding of the mind by relating some of the most common conceptual metaphors of the mind to the philosophical models that explain the brain-mind interaction. Secondly, we intend to recognize some of the metaphors of the mind which underlie many colloquial and figurative expressions in English, and, by doing so, we seek to raise students' awareness of the role of metaphors in everyday language. Thirdly, we focus on the students' understanding and production of two phrasal verbs, *to grind out* and *to crank out* that can be used to refer to mental processes. Obviously, the lesson plan also has other more general objectives, e.g. to develop students' linguistic, communicative, digital and social competences, or facilitate processing information and

learning to 'learn' competence. All in all, this class provides a natural setting for the cognitive metaphor theory because the use of specific conceptual metaphors and their corresponding figurative English expressions becomes meaningful and justified.

4.2. The Organization of the Unit

The unit is covered in two 50-minute sessions. The materials used include the students' notebooks, a whiteboard and handouts 1, 2 and 3 provided in Appendix 5. Previously to this lesson, students have been taught about the main theories concerning 'the mind-body problem' (i.e. dualism, physicalism, functionalism and property dualism) and the strengths and weaknesses of each position have also been examined. Therefore, the students are familiar with some English philosophical vocabulary related to the topic and have dealt with a number of dead metaphors and figurative expressions about the mind (e.g. Plato's Chariot allegory, and John Searle's argument of the Chinese room). Since this lesson plan is part of a philosophy class as opposed to an English class, and the students tend to react negatively when they think that subject matter teachers are trying to carry out linguistic activities, little emphasis is placed on focus on forms activities which would help students produce their linguistic forms more accurately. Instead, linguistic features are taught incidentally, as a means to an end, namely, the teaching of the subject matter. The activities for each of the two days are outlined below.

Activity 1: The students are asked to describe and comment on the pictures on handouts 1 and 2 in Appendix 5. The goal of this activity is to engage students with the topic and to activate previous knowledge.

Activity 2: The students are encouraged to try to figure out the meaning of the idioms provided in the paragraph provided below. It is a guessing activity.

To put an idea into somebody's mind/To have something in mind/To bottle up emotions/To keep something or someone in mind/To grind out the solution/At/in the back of my mind/To get something/someone out of the head/To come to mind/To cross the mind/Chain of thoughts/To crank out an idea/To have a screw loose/To not be the sharpest tool in the shed/To come up with an idea/To get your brain in gear/To have a glitch.

Activity 3: The teacher provides the following short descriptions of the three most common conceptual metaphors used to talk about the mind.

1. THE MIND AS A CONTAINER OR AS A PHYSICAL SPACE

   Underlying this approach is the understanding of the mind as a physical entity which may contain other entities such as abstract/intangible objects (e.g. ideas, thoughts, memories, emotions, feelings) and events of thinking, imagining, desiring, hoping, etc. The container can have rigid or flexible boundaries, it can be full or empty, the objects placed in it can be placed in an upward or downward position, and they may be inside or outside it, at the back, at the front. Plato was the first philosopher to compare the mind with an aviary where thoughts and memories can be stored at greater or lesser levels of accessibility. Freud gave a geological dimension to the container, where we find strata beneath which psychological truths can be buried.

2. THE MIND AS A STREAM

   This metaphor reflects the dynamic nature of mind, which does not remain unchanged for long. Within this approach, thoughts and memories come and go and they are swept by the force of a logic the person cannot control. The expression 'stream of consciousness' coined by the psychologist

and philosopher William James is associated with this approach.

3.   MIND AS A MACHINE

The mind is like a machine, and consequently, it may be in 'on' or 'off' mode, at a particular level of operational efficiency or in a particular state of disrepair. The machine is compared to a Swiss-army knife, a mechanical device or a computer. The computer metaphor sees the components of our mind as analogous to the central processor, the storage devices and the peripherals.

After the teacher's explanation of the three metaphors of the mind, the students are asked to match each of the idioms from activity 2 with its corresponding conceptual metaphor.

Activity 4: Students need to provide an analysis of two metaphor-based phrasal verbs: *to grind out* and *to crank out*. *To grind* and *to crank* have several motivated meanings which can be related to a core or central sense. First, the students are given the definitions of the literal, core sense of *to grind* and *to crank*, i.e. the meaning which is grounded in physical activities. Some pictorials with the corresponding nouns of the verbs to enhance understanding and memorization are also included (see figures 2).

Figure 2. A coffee grinder (left) and a crank (right)

Then additional meanings of the verbs and the figurative meanings of the phrasal verbs which are derived from the core/literal meanings are provided.

To grind

1. To pulverize: to crush something into very small pieces by rubbing it between two hard surfaces, or be crushed in this way.

2. To work hard: to study or work hard, especially too hard.

3. To grind out: to produce something at large quantities, especially when this is boring or difficult.

To crank

1. To start or operate (an engine, for example) by or as if by turning a handle.

2. To crank out: to produce, especially mechanically and rapidly.

Once the students are aware of the central meaning of the verbs, they can easily establish a correspondence between the verbs and the MIND AS A MACHINE metaphor underlying sentences such as *We're still trying to grind out the solution* or *We're really cranking out new ideas*, where the mind is perceived as a machine that produces ideas. In the case of *to grind out*, the process of producing ideas is carried out with difficulty and great effort; in the case of *to crank out*, the new ideas are easily produced at an astounding rate.

The students' understanding of the contents of this unit is tested in the final part of the class. First, the students are given some time to read the article *The new map of the brain* by Jeffrey Kluger (see handout 3, Appendix 5). Then the students are asked to answer the following questions (2.5 marks each):

1- What are the metaphoric expressions about the brain and the mind that appear in the text?

2-   Can you relate them to the metaphors that have been explained in class?

3-   What are the philosophical ideas behind these expressions?

4-   Can you give another example of a metaphor of the mind?

4.3. Final Note

In this section we proposed a lesson plan for 'English metaphors of the mind', a Philosophy and Citizenship syllabus unit. We offered concrete suggestions, classroom activities to teach and practice an array of figurative expressions to talk about the mind (e.g. *to keep something in mind, to grind out a solution, to get your brain in gear*) within the metaphor approach. We also introduced the different philosophical theories about the human mind through the understanding of the conceptual metaphors used to talk about the mind, namely, the mind as a container, the mind as a stream and the mind as a machine. As a result, the learning of new figurative vocabulary to talk about the mental activity and the mind in English was facilitated and the understanding of the subject-matter of the lesson, namely, the different philosophical theories about the human mind, was enhanced.

It was the need to create good teaching materials for the class of Philosophy taught in English to EF students that led us to produce this lesson plan, and eventually to the research presented in this article. As Aristotle would say, the end is in the beginning.

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APPENDIX 1: Handout 1 (Foster & Craven, 2001, p. 12)

Managing your anger

All of us get angry from time to time – anger is a normal human emotion. However, sometimes anger can build up and get out of control. We can lose our temper; shout abuse; be aggressive or even do things which we would normally consider to be violent.

It can also be unhealthy to show no anger at all – even when anger would be a completely justifiable response. Some people have been brought up never to show feelings of anger, so when their needs are not met or people tread on their feelings they just hold their anger inside. Eventually those 'held-in' feelings can make the person ill or depressed.

It's therefore very important to recognize our feelings of anger. It's also important to manage those feelings so that we can behave appropriately towards other people and so that our feelings do not run away with us.

In pairs

Read Melissa's story (below). Discuss this situation and any advice you would give to Melissa.

Have you ever been in a similar situation? Talk about how you dealt with it.

From Mad to Mean – *by Melissa*

One of my best friends in junior high and high school was extremely loyal – she put up with my moods, was there when I needed her, and stuck by me no matter what. Still, one day I was so angry with her that I wouldn't talk to her. I made sure that I was extra-nice to everybody else that I saw that day, so she would be sure to know that it was she alone that I was furious with.

Finally, during P.E. at the end of the day, she burst into tears and yelled at me, 'I hate it when you're like this! I'd rather have you just yell at me and get it over with than not talk to me! You're not even giving me a chance to apologize!'

I still can't remember why I was so mad at my friend that day. But I don't think I'll ever forget the look on her face – and how awful I felt for really hurting a true friend. How much better it would have been for both of us if I'd been straight with her and told her how I felt right away!

What makes you angry?

66 When someone criticises me unfairly. 99

66 People who deliberately put you down. 99

66 Not being allowed to do something I really want to do. 99

'66 When adults won't listen to your point of view. 99

66 People calling me names and making fun of my appearance. 99

66 When someone lets you down. 99

66 When someone sets you up and makes a fool of you in front of your friends. 99

In pairs

What kinds of behaviour make you angry? Think about situations involving your parents, your brothers and sisters, your friends, your teachers, other adults. Make a list of types of behaviour which cause you to feel angry.

What do you do when you are angry?

Different people do different things when they are angry.

'I shut myself up in my room away from everybody. If anyone comes and tries to talk to me I just tell them to go away.'

'I can't stand scenes, so no matter how I feel I try to defuse the situation, but it often leaves me feeling so tense I could scream. I suppose I bottle up my anger.'

'I get in a temper. I shout and rage. I once slammed the front door so hard that it cracked the glass.'

'I try to stay in control. I tell myself to keep calm and try not to say anything I'll regret later. I take a deep breath and try to explain assertively why I'm angry. But if the situation's spiralling out of control, I just walk away.'

'I find it helps to do something physical – like go for a walk or a bike ride. If I can't get out of the house, I'll go to my room and punch the pillow!'

In groups

Discuss the different things that people do to handle their anger (above). Which are good ways of handling anger? Which are bad ways?

12 Unit 2 Managing Your Emotions

APPENDIX 2: Handout 2

Text 1

"The first date was a total disaster. John showed up half an hour late, explaining that he had met an old friend and chatted until they lost all sense of time. The apology just added fuel to the fire. Mary, on quite a short fuse, was seething with indignation. "Keep cool" said to herself, trying to calm down, but a minute later she was boiling with anger again, because he couldn't find the tickets in his pocket. To make things worse it had started to rain and her hair got all curly. "Hey, you look funny!" said John. At that point, Mary hit the ceiling: How dare you say such a thing to me! Are you stupid or something? -Ok, simmer down! Don't snap at me! There was a tense silence as both were fuming, but afraid of saying something they might regret later. They came back home without saying a word. Mary could feel that John was smouldering with resentment and finally she blew up: Can't you do anything right? Next time*, if there is* a next time… I want to have a perfect date: you'll be punctual, you'll be nice and you are going to take me to the best restaurant in town. And, don't forget your credit card! Understood?"

Role play a scene in which Mary and John try to make up.

Text 2

In an outburst of anger, the person reacts in a sudden and violent way towards the perceived injustice or offense. Such violence can be shown by yelling, insulting, throwing objects, hitting things or even physically attacking the persons involved. People can get angry against objects, frustrating situations, anonymous or recently acquainted people.

In spite of that, the most frequent outcome is that they vent their anger on those closest to them, that is, family, co-workers and friends.

    In pairs: Have you ever had an anger outburst? Why? Which were the consequences?

APPENDIX 3: The Test and Post-Test

Name:_____ Group____

1-   Fill in the gaps using the words in the box below:

1.   She really _____ ceiling when she found out what happened.

2.   The teacher _____ me in front of my classmates.

3.   _____ usually makes things worse rather than solving the problem.

4.   He felt that his anger was _____.

5.   A true friend never _____.

6.   Don't _____on the children!

7.   My dad will _____when he finds out that I wrecked his car.

8.   She had spent the evening _____with resentment.

9.   Keep trying, you can't_____.

10. Ask mom for money when she is_____.

11. I don't know why you are so_____ me.

12. His insults just _____to the fire

   2. Match the words on the left with their synonyms on the right:

1	Stay calm		A	Mood
2	Ruining		B	To be violently excited

3	Temper		C	Be sorry
4	Shouting		D	Feel upset
5	Seethe		E	Spoiling
6	regret		F	Keep cool
7	Upsetting		G	Disappointing
8	Quick temper		H	Yelling
9			I	Short fuse

3- Choose the correct option for each sentence:

1- She's very angry, leave her alone. Give her time to _____

   a) simmer down   b) work out   c) storm out

2- I couldn't stand it anymore and I just _____

   a) cheered up   b) blew up   c) look down

3- His frequent _____ made life together very difficult

   a) mistakes   b) moods   c) outbursts

4- She has a gift for _____ the situation when it becomes very tense

   a) improving   b) defusing   c) fixing

5- He still _____ with anger over Paul's comments

   a) reacted   b) seethed   c) shouted

APPENDIX 4

| Levene's Test for Equality of Variances		t-test for Equality of Means							
								95% Confidence Interval of the difference	
F	Sig.	t	df	Sig.	MD	Std. Error Difference		Lower	Upper
0.62	0.43	3.61	38	0.001	1.95	0.53		0.85	3.04

Table 4. Test. T-test for independent samples, equal variances assumed

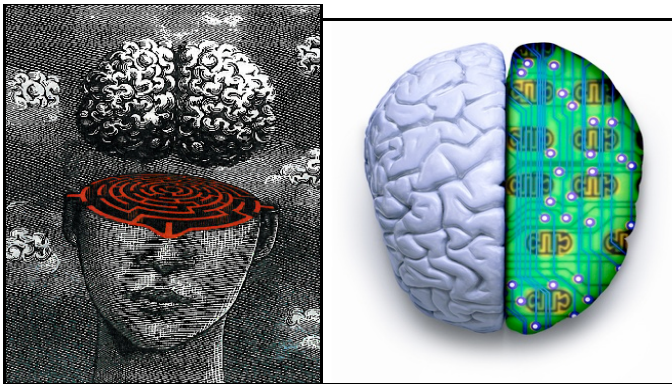| Levene's Test for Equality of Variances		t-test for Equality of Means							
								95% Confidence Interval of the difference	
F	Sig.	t	df	Sig.	MD	Std. Error Difference		Lower	Upper
0.312	0.58	1.18	31	0.24	0.49	0.41		-0.35	1.35

Table 5. Post-test. T-test for independent samples, equal variances assumed

APPENDIX 5

Handout 1
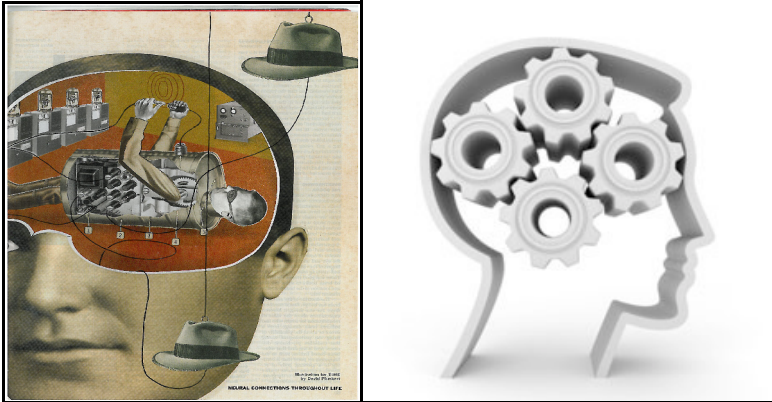
Handout 2

Handout 3: The new map of the brain (Kluger, 2007)

A USER'S GUIDE TO THE BRAIN

THE NEW MAP OF THE Brain

TRYING TO MAP THE BRAIN HAS ALWAYS BEEN cartography for fools. Most of the other parts of the body reveal their workings with little more than a glance. The heart is self-evidently a pump; the lungs are clearly bellows. But the brain, which does more than any organ, reveals least of all. The 1.4-kg lump of wrinkled tissue—with no moving parts, no joints or valves—not only serves as the motherboard for all the body's other systems but also is the seat of your mind,

your thoughts, your sense that you exist at all. You have a liver; you have your limbs. You are your brain.

The struggle of the mind to fathom the brain it inhabits is the most circular kind of search—the cognitive equivalent of M.C. Escher's lithograph of two hands drawing one another. But that has not stopped us from trying. In the 19th century, German physician Franz Joseph Gall claimed to have licked the problem with his system of phrenology, which divided the brain into dozens of personality organs to which the skull was said to conform. Learn to read those bony bumps, and you could know the mind within. The artificial—and, ultimately, racist—field of craniometry made similar claims, relying on the overall size and shape of the skull to try to determine intelligence and moral capacity.

Modern scientists have done a far better job of things, dividing the brain into multiple, discrete regions with satisfyingly technical names—hypothalamus, caudate nucleus, neocortex—and mapping particular functions to particular sites. Here lives abstract thought, here lives creativity; here is emotion; here is speech. But what about here and here and here and here—all the countless places and ways the brain continues to baffle us? Here still be dragons.
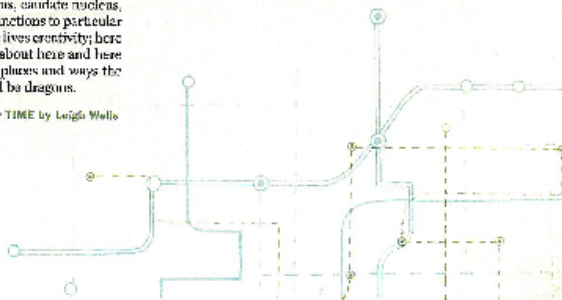
Illustrations for TIME by Luigi Wells

Slowly, that is changing. As 21st-century science and technology open the brain to us as never before, accepted truths are becoming less true. The brain, we're finding, is indeed a bordered organ, subdivided into zones and functions. But the lines are blurrier than we ever imagined. Lose your vision, and the lobe that processed light may repurpose itself for other senses. Suffer a stroke in the area that controls your right arm, and another area may take over at least some of the job.

Specialized neurons are being found that allow us to mirror the behavior of people around us, helping us learn such primal skills as walking and eating as well as how to become social, ethical beings. The mystery of memory is being teased apart, exposing the way we store facts and experiences in addition to the emotional flavors associated with them. Magnetic resonance imaging is probing the brain as it operates, essentially—if crudely—reading our minds, and raising all the attendant ethical questions.

Finally and most elusively, we are learning something about consciousness itself—the ghost in the neural machine that gives you the sense of being in the moment, peering out at the world from the control room behind your eyes. If we can identify that cognitive kernel, can we one day endow a machine with it? But by isolating such a thing, do we in some way annihilate it too?

Human beings have always been brash enough to ask such questions but lacked the necessary gifts to answer them. At last, we are acquiring that ability. What we can't yet know is whether we will wisely use the remarkable things we're slowly learning. —**By Jeffrey Kluger**