NEAR-NATIVE SPEAKERS' RECOGNITION AND PRODUCTION OF IDIOMS IN L2

SPANISH

by

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(Under the Direction of Margaret Quesada)

ABSTRACT

Idioms constitute an essential part of any culture and language. However, due to their unique structure and meaning, idioms pose problems for L2 learners because their figurative meaning usually differs from the literal one. The lack of transparency and the difference in metaphorical concepts among languages render their recognition, and mainly their production, most difficult even for near-native L2 learners.

The present study is two-fold and examines the recognition and production of idioms as well as the different strategies used when dealing with unfamiliar idioms in the L2 by a group of near-native speakers of Spanish as an L2. In the first experiment, the participants were tested on the extent of their familiarity with common Spanish idiomatic expressions. They were asked to provide the missing component, either the verb or the noun, from a list of common idiomatic phrases selected to be identical, similar to or different conceptually and syntactically from their English counterparts. The phrases were embedded in context to facilitate production. The study explores the links between idiom production and recognition, compositionality, key words, and length of stay in a Spanish-speaking country. The results demonstrated that the nouns were

acting as idiom key words because they facilitated the production of the correct verb, especially when the idiomatic phrases were similar or different in the L1 and L2.

The second experiment focused on studying the different strategies the L2 learners employed while working out the meaning of unknown idioms embedded in a paragraph-long context via a Think-Aloud Protocol. The results revealed that the near-native speakers use a variety of strategies to understand the figurative meaning of unfamiliar idioms. The study, however, also demonstrated that the L2 speakers process familiar idioms in the L2 in a native-like manner by providing the figurative meaning first.

Near-native speakers of Spanish as an L2 are rarely targeted by current research because it is usually assumed that they have a good command of figurative language. The two studies, however, reveal important findings which show that idiom interpretation and production should not be taken for granted by researchers or language teachers.

INDEX WORDS: Idioms in the L2, Acquisition of Spanish Idioms,

                                  Lexical Acquisition in the L2, Think-Aloud Protocol in the L2

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BA, Auburn University at Montgomery, 2003

MHS, Auburn University, 2007

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial

Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2013

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August 2013

ACKNOWLEDGEMENTS

I would like to express my gratitude to my major professor Dr. Margaret Quesada and to the committee members Dr. Sarah Blackwell and Dr. Don McCreary for offering their time and expert advice to improve the quality of this dissertation.

I am deeply grateful to my parents and my brother for the endless words of encouragement and support, even from far away. I would also like to thank the Strempels who made me a part of their family and always offered inspirational words to keep me going. Many thanks to my friend Malina who always knew how to make me laugh and look on the bright side of life.

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CHAPTER 1

INTRODUCTION

Idioms constitute a very challenging aspect of second language (L2) acquisition due to the fact that they are conventionalized expressions, often unpredictable in meaning and specific to a language community (Liu 2008). The question of how idioms are acquired and understood is still a rather difficult and controversial one. Wood has indicated that "in research in second language acquisition in particular, there have been few attempts to uncover how learners may use formulaic sequences to facilitate fluent speech and how learners may employ formulaic sequences for particular discourse purposes" (2009:40). Idiom comprehension and production is a very complex process and a very challenging research issue for linguists to understand, especially when applied to L2 acquisition (Liu 2008:63).

Research on idioms in linguistics is relatively new, especially in languages other than English. Teachers and researchers in the field of language acquisition have typically given precedence to syntax and phonology as central to linguistic theory and more pertinent to language pedagogy. It is only recently that idioms have assumed a more prominent status, prompted by awareness of the role multiword units play in learning and communication. Idioms are important because they help learners produce fluent language. Because of that, it can be argued that idioms are necessary in every stage of the language-learning process. Liu (2008: i) explains that "a decent command of a language entails a grasp of some of its basic idioms. In fact, the level of command of idioms is an important indicator of second language (L2) proficiency."

In addition, idioms have attracted considerable attention in linguistics and language learning due to their unique nature, often viewed as a mismatch between the actual meaning of the idiom and the sum of the meanings of its constituent parts. Studies on idioms embody one of the most challenging research areas in the field of linguistics. This is partly due to the disagreement among researchers as to what comprises an idiom. The term frequently occurs in the literature with a variety of different meanings (Moon 1998). In linguistics and psycholinguistics, it is generally agreed that an idiom is a conventionalized set of words whose overall meaning is distinct from the meanings imparted by each of the words in isolation. Idioms are described "as fixed expressions which are phrases or sentences whose figurative meaning is not clear from the literal meaning of their individual constituents" (Abel 2003:329). Such expressions belong to the vast family of fixed phrases, clichés, proverbs, indirect speech acts, and speech formulas in that they all share some degree of conventionalization of meaning. What adds to the complexity of research in this field is the issue of compositionality. Whether each word in an idiom contributes meaning to the overall meaning is a highly controversial issue that has been given a great deal of attention (Everaet, Van der Linden, Schenk, & Schreuder 1995).

The notion of compositionality (or lack of it) is still expected to have an important role in the two experiments in this dissertation. Nevertheless, the identification of a specific idiom and its meaning also depends on the level of familiarity and the degree of similarity between the two languages, the L1 and L2. If a language user is familiar with a particular idiom, s/he will process it more quickly (Cronk & Schweigert 1992; Forrester 1995; Moon 1998; Liu 2008). Also, it has been shown that speakers will not decompose familiar idioms because they are already stored as a lexicalized string in their mental lexicon, which allows for its direct retrieval when necessary (Titone and Connine 1999). Although this theory has focused on idiom processing in the L1, one

can argue that near-native L2 speakers will process familiar idioms in the L2 in a similar way, i.e., bypassing the linguistic analysis because they already have the figurative phrases stored in their mental lexicons as long words. The successful comprehension, processing, and production of idioms also depend on the similarities and differences between L1 and L2 in terms of the syntactic and semantic structures of the idiomatic phrases. If these factors are taken into account, then idioms can be divided into three new groups (according to their syntactic-semantic structures in the L1 and the target language): identical, similar, and different (Irujo 1993, Laufer 2000). Nevertheless, the L2 speaker's pragmatic knowledge and level of familiarity still determine whether the idioms within those groups will be interpreted holistically or whether the L2 learner will decompose the idiom and look at the literal meaning of the individual words in order to understand the figurative meaning of the idiomatic phrase.

The objective of the current study is twofold: it aims to examine the comprehension and production of idioms by near-native L2 speakers of Spanish with English as their L1, and to investigate the strategies those L2 learners use in dealing with unfamiliar idioms. Also, the notion proposed by some researchers (e.g., Cieślicka 2007) that L2 learners process the idiomatic strings literally, regardless of familiarity or syntactic and semantic similarity between the native and the target languages is being challenged in this dissertation.

The study targets near-native second-language learners because they are more likely to have a rich vocabulary, good command of grammar, and greater pragmatic knowledge than less proficient learners. These factors are important to the study because knowledge and understanding of vocabulary are directly linked to how idioms are interpreted by L2 learners (Liontas 2003:290). Additionally, research on the more advanced levels of L2 learners,

especially by learners of languages other than English, is lacking due to the general assumption that advanced or near-native learners have already acquired idiomatic expressions.

The results from the present study will add to our understanding of the cognitive processes triggered by the idiomatic use of language. The first question is related to finding out how familiar the near-native L2 speakers are with a particular group of common idioms. Previous studies (e.g., Irujo 1986, Laufer 2000) have shown that the degree of semantic and syntactic similarity between the native and the target languages influenced the success rates in idiom production for the different types of Spanish idioms that were identical, similar and different semantically and syntactically, compared to idioms expressing the same concept in English. The current study adopted Irujo's classification of syntactic and semantic similarities of idioms between the native and the target language. Because of that, it is also of interest to examine whether the degree of similarity in meaning and structure between the L1 and L2 play any role in the recognition and production of idioms by near-native L2 speakers. The next two questions focus on the importance of the constituents within the idiomatic phrase as a way of providing information about the figurative meaning of the word string. In this case, it was of interest to observe which of the two constituents - the verb at the beginning of the phrase or the head noun of the phrase usually following the verb - would act as an idiom key, prompting idiom recognition and providing sufficient information to allow the phrase to be completed correctly. Therefore, the questions can be formulated in the following manner: If either the verb or the noun phrase is omitted, which one will act more as an "idiom key word"? In other words, which of the two constituents will aid more in the recognition and production of the idiomatic expression?

Previous research has shown that L2 learners use a heuristic approach (Cooper 1999), i.e., they use a variety of strategies to understand the meaning of unknown idioms in the L2 because they approach the unknown idiom as a problem and try to solve it on a trial and error basis (Liu 2008:74). Some of the preferred strategies are guessing from context, focusing on the literal meaning of the words within the idiomatic phrase, and using key words. Furthermore, L2 learners and native speakers differ in terms of comprehending and processing unknown idioms. L2 learners take longer to process and comprehend idioms in the L2 while using a wider variety of strategies. Liu (2008:74) explains that L2 idioms processing and comprehension "does not conform to any of the major L1 idiom comprehension models, i.e., literal meaning first, idiom list, directs access, and compositional analysis." (Those models are discussed in detail in chapter 2). However, there is no agreement on how L2 learners process familiar idioms. Some researchers such as Cieslicka (2006) propose that L2 learners analyze linguistically familiar idioms because they always process them literally. On the other hand, scholars such as Liu (2008) maintain that L2 learners and native speakers alike bypass linguistic analysis of familiar idioms in the L2 and retrieve them directly from memory, although non-native speakers may take longer to retrieve the idiomatic expressions.

Nevertheless, the focus has generally been on less advanced L2 learners. It is of interest, then, to study whether the near-native speakers of Spanish as an L2 would use the same strategies as those reported in the previous studies. Thus, the present study attempts to answer the following questions: What strategies in particular do the L2 speakers of Spanish use in order to arrive at the correct figurative meaning of an unknown idiom given in context? Does knowledge of the literal meaning of the individual words within the idiomatic strings change the preferences for strategies employed by the subjects when working with unknown idioms? If L2

learners are given the literal meanings of the words in idiomatic string (as opposed to receiving no literal translations), will they use different strategies to comprehend them? The final research question is centered on examining whether there is a positive correlation between the time spent in a Spanish-speaking country and knowledge of idioms, as reflected by comprehension and production of idioms in these tests.

The study of idioms is an area where a large number of questions still remain to be answered. There are too few studies with descriptive data on the development of L2 idioms in the output of near-native L2 speakers. To date, researchers have focused on studying learners of L2 who are generally at the intermediate or lower advanced level (Abdullah and Jackson 1998; Cooper 1999; Liontas 2002, 2003, among others). However, there has not been a study on higher advanced or near-native learners who as non-native speakers of Spanish as an L2 not only continue to study the second language in their advanced studies, but are also teaching it at a college level. Idiom comprehension, processing, and production in L2 learners, especially in languages other than English, are relatively new areas of investigation in linguistics and L2 acquisition. The present study responds to a need for research in these areas and aims to add to our understanding of idiomatic language processing by non-native advanced speakers of Spanish. Additionally, idiom comprehension and production in L2 depends on a myriad of factors, such as pragmatic and cultural knowledge, context, transparency of the idiom, its syntactic analyzability, and the level of similarity between the two languages, as the latter allows for positive or negative transfer and even for avoidance.

1.1. Organization of the Dissertation

The current chapter provides the rationale for the study and its objectives and significance. Chapter 2 provides a historical background of idiom studies in the L1, specifically examining processing and comprehension of idioms in light of the issue of (non)compositionality, i.e., whether L1 speakers focus on the literal meanings of the constituents as a way of understanding the figurative one. In this chapter it is argued that the Hybrid model proposed by Connine and Titone (1999) is the most adequate for the examination of the L1 interpretation of idioms. However, I argue that this particular model can also be applied to processing of idioms in the L2. The issue of defining an idiom is also studied in the second chapter. Chapter 3 focuses on theoretical and empirical studies on idioms in the L2 related but not limited to processing theories, avoidance, attitude, idiom familiarity, and strategies used in the L2 while trying to figure out the meaning of an idiom. Different teaching models and their success rates are also examined. Studies in L2 acquisition have found that during a fill in the blank task, L2 learners are able to reproduce the missing constituent in the identical idioms due to positive L1 transfer but experience greater interference when they have to reproduce similar idioms. The difference in semantic and syntactic structures affects greatly the L2 learners' ability to reproduce correctly the different idioms. Chapter 4 presents the methodology and research design for the two experiments. In this chapter, I detail the characteristics of the participants, the tasks and materials selected for data collection, and the analysis. Chapter 5 reports on the results from the two studies. The first study is a fill-in-the-blank experiment during which the subjects were asked to provide the missing constituents from twenty-five common Spanish idioms embedded in context and divided by the similarity principle proposed by Irujo 1986. During the second experiment, the L2 learners were asked to figure out the meanings of fifteen unknown idioms presented in

context. To study how the near-native L2 speakers make sense of the unfamiliar idioms, the researcher asked them to verbalize their thoughts. Based on the recorded data, several strategies employed by the subjects during the task were distinguished. Chapter 6 summarizes the findings by specifically addressing the research questions that guided the study and draws conclusions based on the data. Limitations of the study, pedagogical implications, and directions for future research are also discussed.

CHAPTER 2

BACKGROUND: IDIOMS IN THE L1

In this chapter, I begin with an overview of the diverse ways scholars, influenced by different schools of thought, have tried to classify and define idioms, although there is still no agreement on what constitutes an idiom. Afterwards, I outline and discuss the major theories of idiom comprehension and processing in the L1 pertaining to the view of compositionality and how it has influenced research on idioms. Finally, I discuss how studies in idiom processing in the L1 relate to the present study on idiom processing in L2.

2.1. What Is An Idiom?

Before going any further with the discussion of how different scholars have come to define "idiom," it is important to note that the word has two different meanings. The first is synonymous with language or a particular dialect spoken by people, and the second deals with phrases that have a meaning beyond the literal one. The third edition of the Oxford English Dictionary gives the following definitions of the term related to language. For the purposes of the present study, the most relevant definition will be the third one because it deals with fixed expressions whose meaning cannot be deduced from the sum of their parts in general. This definition, although modified to some extent, is often adopted by researchers (e.g., Abel 2003, Cornell 1999).

1. The specific character or individuality of a language; the manner of expression considered natural to or distinctive of a language; a language's distinctive phraseology.

2. a. A language, especially a person or people's own language; the distinctive form of

speech of a particular people or country.

b. In narrower sense: a dialect or variety of a language; a form of a language limited to or

distinctive of a particular area, category of people, period of time, or context.

3. A form of expression, grammatical construction, phrase, etc., used in a distinctive way

in a particular language, dialect, or language variety; spec. a group of words established

by usage as having a meaning not deducible from the meanings of the individual words.

Nevertheless, among scholars of linguistics, the definition of an idiom has been a thorny issue for many years. Currently, there is no agreement on what is understood by the term *idiom*. This is due largely to the problem of what constitutes an idiom. Even though many language philosophers have proposed possible definitions of the term, they disagree with regard to how broad or restricted the definition of idiom is. For example, Hockett (1958) offers a very broad definition of the term so as to include all fixed phrases, clichés, idiomatic speeches, proverbs, slang, and even single morphemes, e.g. *tele, work*. On the other hand, lexicographers such as Moon (1989) only include semantically opaque fixed metaphorical expressions, such as. *kick the bucket*, in their definition. Other researchers offer an even more narrow view and exclude all together metaphorical idiomatic expressions (Liu 2008:3). According to Grant and Bauer (2004) multi word units (MWUs) must consist of at least two words and they must be non-compositional and non-figurative in order to be considered core idioms, e.g. *by and large.*

One of the first western grammarians who studied idioms extensively and offered a possible definition, albeit a very broad one, was Hockett (1958) (Wood 1986:13). He considered an idiom to be any language element whose meaning could not be deduced from its structure and

even included units as small as morphemes (e.g. *work, tele, phone*), and as large as exchanges,

such as *What's up* (Liu 2008:4). He defended his proposition in the following manner: "A vast

number of composite forms in any language are idioms. If we are to be consistent in our use of

the definition, we are forced also to grant every morpheme idiomatic status, save when it is

occurring as a constituent to a larger idiom, since a morpheme has no structure from which its

meaning could be deduced" (Hockett 1958:172). Nevertheless, Moon (1989:10) considers such

extension of idiom to morphemes and ad hoc formulations to be too broad to form a practical

category; furthermore, he criticizes Hockett's definition as it does not account for the grading or

variety of kinds of fixed expressions (FEIs). Although Hockett was the only one to consider

morphemes as idioms, there are other researchers who employ a broader definition of the term

and accept polysemous words as idioms.

Inspired by Chomsky's work, Katz and Postal (1963) studied idioms from the

transformational-generative point of view, focusing on syntax. They view idioms "as the

'exceptions that prove the rule': in other words, they do not get their meaning from the meaning

of their syntactic parts" (Katz 1973:358, cited in Moon 1998:15). Furthermore, they distinguish

between two types of idioms: 1) lexical, which are polymorphemic words or multiword nouns,

verbs, etc., and 2) phrase idioms, which are verb + object phrases. Katz and Postal focus

extensively on phrase idioms because this group of idioms is nonproductive and frozen

syntactically: for example, *put one's foot in one's mouth* cannot be made passive or otherwise

manipulated without losing its figurative meaning. Such idioms are stored in the mental lexicon

separately, in a special "idiom list" as it was proposed by Bobrow and Bell (1973). However,

Katz and Postal pay far less attention to the lexical idioms because those are stored in the same

way as ordinary words (Moon 1998:15). According to those researchers, an example of a lexical

idiom would be the word *greenhouse* because its meaning as a place for nursing plants is not the composite meaning of the morphemes green and house (Liu 2008:5).

While Weinreich (1969) too works within the transformational-generative grammar framework, his definition of an idiom is much more restricted than the one presented by Katz and Postal. To begin with, Weinreich does not consider single words as idioms. He accepts only multiword expressions as idioms (e.g., *by heart*), although not all expressions qualify as idioms. In order for a multiword expression to be considered an idiom, it must be idiomatic and also ambiguous: for example, *to be in hot water* can be understood both literally and figuratively (Liu 2008:7). Weinreich defines an idiom as a phraseological unit involving at least two polysemous constituents, and in which there is a reciprocal contextual selection of subsenses (Fernando 1996:8). Because of his narrow criteria, Weinreich does not consider phrases such as *by and large* or *two wrongs don't make a right* as being idiomatic and classifies them as stable collocations because such phrases "have nothing idiomatic or even phraseological about them. They are merely stable and familiar" (Weinreich 1969:71).

Although from the same school of thought as Katz and Postal and Weinreich, Fraser (1970) chose to focus on the syntactic flexibility of idioms. He created a hierarchy of frozenness that "reflects from bottom to top, an increasing degree of distortion permitted to the basic idiom shape of the untransformed idiom. The most frozen idioms, those characterized by L0, permit no distortion, those least frozen, L5, permit considerable alternation" (Fraser 1970:39). The hierarchy consists of seven levels:

L0 – Completely frozen, e.g., *Trip the light fantastic*.

L1 – Adjunction, e.g., from *Kicked the bucket* to *He's kicking the bucket*. This idiom can only be transformed using the gerund (Fernando 1996:9).

L2 – Insertion, e.g., from *He read the riot act* to *He read the riot act to the class*. Nonidiomatic constituents can be placed within the idiom (Liu 2008:8).

L3 – Permutation, e.g., from *Can't teach an old dog new tricks* to *Can't teach new tricks to an old dog*. Inverting the indirect and direct object (Liu 2008:8).

L4 – Extraction, e.g., from *To pass the buck* to *The buck has been passed too often here*. Passive transformation (Liu 2008:7).

L5 – Reconstruction, e.g., from *He lay down the law* to *His lying down the law*. The idiom can undergo nominalization (Liu 2008:7).

L6- Unrestricted, e.g., from *Read the riot act* to *The riot act was read*. This idiom can undergo indirect object movement, two types of passive transformation, and gerundive and action nominalization transformation (Fernando 1996:9).

Fraser (1970:39) insists that no true idioms can be found beyond level 5 because level 6 presupposes alternations such as topicalization, as in clefting, and no idiom can undergo such change without losing its figurative meaning. Although at first glance Fraser's transformational deficiency hierarchy of classifying idioms seems neat and orderly, it has drawn criticism because very few idioms are frozen as he claimed. He also fails to take into consideration "the different relationships which may hold between the meaning of an 'idiom' and the meanings of its constituents, i.e., of the many possible types and degrees of compositionality, which are crucial to an understanding of the semantic and possibly also the syntactic structure of the idiom" (Wood 1986:19).

Another scholar who accepts polymorphemic words as idioms is Makkai (1972). He, however, insists that the words must consist of at least two free morphemes (e.g., *blackmail*), thus rejecting (in opposition to what Hockett had proposed) polymorphemic words made of

bound morphemes and only one free morpheme as idioms, (e.g., *telephone*, where *tele* is an affix and *phone* a free morpheme) (Liu 2008:6). Makkai distinguishes between two types of idioms: 1) idioms of encoding (also known as phraseological idioms), for example, *Drive at 70 m.p.h.* instead of *with* as it is in French (*avec*); and 2) idioms of decoding (or semantic idioms) that also have a non-literal meaning, for example, *red herring* and *take the bull by the horns*. Idioms of encoding refer to stable collocations peculiar to a language; these expressions are called idioms solely for their phraseological peculiarities (Liu 2008:4). Because of structural uniqueness and semantic opacity, idioms of decoding are the focus of Makkai's study (Liu 2008:6). He further divides idioms of decoding as lexemic and sememic. Phrasal verbs (e.g., *bring up*), tournures (*rain cats and dogs*), irreversible binomials (*salt and pepper*), phrasal compounds (*blackmail*), incorporating verbs (*eavesdrop*), and pseudo-idioms (*kith and kin*) all form part of the lexemic idioms. The sememic idioms, on the other hand, are proverbs (*Don't count your chickens before they're hatched*); familiar quotations (*not a mouse stirring*); idioms of institutionalized politeness (*May I…?*)*;* and idioms of institutionalized understatement and hyperbole (*I wasn't too crazy about him*) (Liu 2008:6). Although lexemic and sememic idioms can function both idiomatically and non-idiomatically, the main difference between those two types of idioms of decoding is functional because sememic idioms have an interpersonal role as they signify warnings, requests, evaluations, etc. (Fernando 1996:5).

Wood (1986) offers a restrictive view of an idiom, as she only considers certain expressions to be idiomatic. On the continuum of semantic compositionality, only the ones with "zero" compositionality that are also completely unproductive syntactically should be called idioms. Her definition of an idiom "is a complex expression which is wholly non-compositional in meaning and wholly non-productive in form" (Wood 1986:2). It is important to note that

Wood (1986:2) does not correlate ambiguity with idiomaticity as Weinreich did, i.e., idioms do

not have to have both a literal and an idiomatic meaning, and thus, Wood accepts such phrases as

by and large as idioms (Liu 2008:9). Liu (2008) makes an important observation regarding

Wood's definition, stating that she offers a very rigid definition of the concept of an idiom but

that this definition is built on the "gradience" nature of natural language, the term *gradience*

suggesting flexibility within the linguistic categories. In other words, the boundaries between

lexicon and syntax are not always well defined or set, and they often overlap with each other

because the degree of semantic compositionality and syntactic flexibility rests on a continuum

ranging from idioms to collocations, clichés, formulae, and finally free forms. Due to this

"gradience nature," it is not always easy to decide whether an expression is an idiom or

collocation, since it is not always clear whether it is "wholly" or "partially" non-compositional in

meaning and "wholly" or "partially" non-productive in form (Liu 2008:9).

Fernando (1996:30) places a greater importance on the distinction between idioms and

idiomaticity, which allows her to offer a broader definition of idioms. Although both have a

predictable co-occurrence of specific words, idioms have a limited range of word combinations.

For example, in the idiom *seize/grasp the nettle*, the phrase will take one of the two verbs, but no

other option is possible. Because of this lack of flexibility, Fernando (1996:30) sees idioms as

"indivisible units whose components cannot be varied or varied only within definable limits."

She further explains that not only idioms but all word combinations show idiomaticity, for

example, habitual collocations such as *rosy cheeks* and *catch a bus*, but Fernando does not

consider them idioms because such phrases show far less restriction in possible word

combinations: *bus* can also be replaced with *tram/train*. Another criterion Fernando uses to

classify idioms is the degree of semantic transparency, which she uses to create three categories:

(1) pure idioms that are non-literal and invariant (e.g., *smell a rat, the coast is clear*); pure idioms with restricted variance that are non-literal (e.g., *take/have forty winks, seize/grasp the nettle*); (2) semi-literal idioms that are invariant (e.g., *foot the bill, catch fire*); semi-literal idioms with restricted variance (e.g., *chequered career/history, good morning/day*); (3) literal idioms that are invariant in structure (e.g., *on foot, Happy New Year*); literal idioms with restricted variance (e.g., *Happy/Merry Christmas*). Nevertheless, the two criteria pose certain problems when trying to identify idioms. First, it is difficult to distinguish on a semantic level whether an idiom is pure or semi-literal, or whether it is semi-literal or literal. Second, the restriction in variance is also problematic because at times it is difficult to determine whether a particular phrase is an idiom or a habitual collocation since the two may overlap at times (Liu 2008:11).

After exploring the difficulties with defining an idiom (an ambiguous term used in conflicting ways), Moon (1989) takes a different perspective on idioms and groups them under the larger umbrella term of fixed expressions or FEIs, which include frozen collocations, grammatically ill-formed collocations, proverbs, routing formulae, sayings, and similes. She acknowledges that even "fixed expressions" is not a satisfactory term since many such expressions are not actually fixed, but she retains the classification for "simplicity's sake" (Moon 1998:2). Nevertheless, Moon offers a rather narrow identification of idioms as semi-transparent and opaque metaphorical expressions, such as *spill the beans* and *burn one's candle at both ends*, although the notion of transparency is rather subjective and may vary from speaker to speaker (Vega-Montero 2005). Liu (2008:11) keenly observes that Moon's definition of idiom is reminiscent of the one proposed by Weinreich, who also insists that for a phrase to be called an idiom it should have both a literal and a figurative meaning.

To date, Grant and Bauer (2004) have offered the most restrictive view of idioms in order to offer better guidelines for teaching idioms in English as an L2. Like Moon, they too exclude phrasal verbs from idioms because not all phrasal verbs are idiomatic (Grant &Bauer 2004:39). These researchers focus on compositionality (i.e., the degree to which the individual words contribute to the overall meaning of the idiomatic phrase) as a major criterion for defining idioms and, to a lesser extent, on frozenness (i.e., the degree to which an idiom can be altered syntactically and/or semantically) and institutionalization (i.e., how common an idiom is in a given language), since they believe that these three criteria are closely related. According to Grant and Bauer, multiword units (MWUs) must consist of at least two words, and they must be non-compositional and non-figurative in order to be considered core idioms (e.g., *by and large, have a bone to pick with someone*). Therefore, core idioms cannot be interpreted meaningfully either literally or figuratively via compositional analysis (Liu 2008:12). Such a narrow definition of idioms leaves out figurative phrases like *kill two birds with one stone* and *dog in the manger*. The researchers exclude them because the speaker can recognize and pragmatically reinterpret the non-truthfulness or non-literalness of the expression and arrive at their intended figurative meaning (Liu 2008:12). Although Grant and Bauer try to redefine and restrict the definition of an idiom, the criterion for being non-figurative is problematic because it seems to be fairly subjective and also relies on the speaker's intuition to interpret the phrase pragmatically as untruthful. Furthermore, there does not seem to be agreement among (non-native) speakers on whether a particular multiword unit is an idiom. For example, the figurative phrase *a dog in the manger* was seen as an idiom by many L2 speakers because they were not familiar with meaning of "manger," whereas the core idiom *to have a bone to pick* was much more transparent to them because they were able to work out the meaning of the phrase due to familiarity with the concept

of "bone-picking," i.e., fighting (Liu 2008:12). Because of this, some MWUs are judged to be borderline, i.e., they can be interpreted literally or figuratively according to the context and/or the speaker's knowledge (Grant & Bauer 2004:53).

To sum up, studies on idioms embody one of the most challenging research areas in the field of linguistics. This is partly due to the disagreement among researchers as to what comprises an idiom. The term frequently occurs in the literature with a variety of different meanings (Moon 1998). Nevertheless, throughout the years scholars have agreed more or less on certain qualities that define idioms, such as being multiword expressions consisting minimally of two words, including compound words. In terms of syntactic and semantic flexibility, idioms are generally rigid in structure. However, as can be seen from previous studies, they allow for some flexibility, ranging from completely invariant to more variable structures. Also, in terms of transparency, idioms tend to be non-literal or semi-literal in meaning, i.e., the noncompositional view is observed as their meaning is not completely accessible from the interpretation of the constituents (Liu 2008:13). In linguistics and psycholinguistics, it is generally agreed that an idiom is a conventionalized set of words whose overall meaning is distinct from the meanings imparted by each of the words in isolation. They are "multifaceted objects" (Liu 2008:3), and "attempts to provide categorical, single-criterion definitions of idioms are always to some degree misleading and after the fact" (Nunberg et al. 1994:492). Nonetheless, such expressions belong to the vast family of fixed phrases, clichés, proverbs, indirect speech acts, and speech formulas in that they all share some degree of conventionalization of meaning. "For such a complex and elusive concept, perhaps no single definition can be adapted or even possible, certainly not for scholars whose research interests vary significantly" (Liu 2008:3). Nevertheless, as a working definition for the present study I adopt Abel's (2003:329) description of idioms "as fixed

expressions, i.e., as phrases or sentences whose figurative meaning is not clear from the literal meaning of their individual constituents."

2.2. Views On Compositionality

The issue of compositionality adds to the complexity of research in this field. Whether each word in an idiom contributes meaning to the overall meaning is a highly controversial issue that has been given a great deal of attention (Everaert et al. 1995). There are three major approaches to the compositionality issue in idiom processing in the first language: the noncompositional view, the compositional view, and the hybrid theory. Early theories of idiom processing in the L1 have been dominated by the noncompositional view. This model stipulates that idioms are understood via direct memory retrieval instead of linguistic processing. This hypothesis is supported by generative linguists, who assume that idioms are noncompositional since such expressions are viewed as long words that are stored in a separate mental list and can be retrieved directly without any literal or syntactic analysis (Liu 2008:56-7). Therefore, meaning is assigned to the whole idiom but not to its individual words. "From a generative syntactic point of view, only the literal meaning of an idiom is compositional, while the figurative meaning is always noncompositional" (Abel 2003:332). For example, the literal interpretation of the idiom *to kick the bucket*, to strike a bucket with one's foot, has no obvious semantic overlap with the figurative meaning of the expression, to die suddenly (Titone & Connine 1999). Models of the noncompositional view include the literal-first hypothesis proposed by Bobrow and Bell (1973), the lexical representation hypothesis by Swinney and Cutler (1979), and the direct access hypothesis pioneered by Gibbs (1980). At the other end of the spectrum is the compositional model, which negates the existence of a separate mental idiom list; rather, it stipulates that idioms are processed differently depending on the degree of

compositionality, i.e., whether the individual parts within the phrase contribute to the overall meaning. "Decomposable idioms involve the same mechanisms of lexical retrieval and syntactic parsing taking place during the comprehension of literal expressions, whereas nondecomposable idioms require processes akin to those operating in the recognition of individual words" (Tabossi, Fanari, & Wolf 2009:530). Nevertheless, only the decomposable idioms enjoy a processing advantage, due to the overall contribution of constituents that are often common words familiar to the native speaker. Although the compositional view was originally proposed by Nunberg in 1978, Gibbs and colleagues (Gibbs, Nayak, Bolton, & Keppel 1989; Gibbs, Nayak, & Cutting 1989; Gibbs & Nayak 1989) developed the theory in more detail and carried out several studies that supported the idea that L1 speakers decompose idioms, especially when they are not familiar with them.

The hybrid model proposed by Titone and Connine (1999) set out to unify the two previous models because Titone and Connine came to the conclusion that native speakers process idioms differently depending on the degree of familiarity and conventionality with a particular idiom as well as the degree of compositionality. If a speaker is familiar with a particular idiom s/he will retrieve it as a long word, completely bypassing the need to decompose it or process it literally. On the other hand, speakers working with unfamiliar idioms are more likely to decompose them in order to figure out the figurative meaning.

Although the configuration hypothesis, also known as the idiom key hypothesis by Cacciari and Tabossi (1988), does not deal specifically with compositionality, it bears mentioning because these researchers are interested in figuring out the precise point in which a phrase is recognized as an idiom. According to Cacciari and Tabossi, idioms are presented in the lexicon as a configuration of words, and those same words are also retrieved from the mental

lexicon during literal speech processing; thus, an idiom is processed literally until enough information is retrieved for the speaker to recognize it as a metaphoric expression (Tabossi et al. 2009). This is usually achieved once the speaker encounters a specific key word within the phrase that triggers idiomatic recognition.

All of these models are relevant to the present study because majority of them explore the notion of compositionality and how speakers employ it when processing and comprehending idioms. Although these theories have focused on native speakers, the issue of compositionality is also central to how L2 learners process idioms in a second language. When L2 learners encounter a familiar idiom in the L2, they tend to resort to direct memory retrieval, rendering semantic and syntactic analysis of the idiom unnecessary because the figurative phrase is already present in their mental lexicon as a long word. This way of recalling idioms is reminiscent of the noncompositional view, and especially the direct access hypothesis proposed by Gibbs (1980) and the lexical representation model proposed by Sweeney and Cutler (1979). However, L2 learners will be more likely to come across unfamiliar idioms in the second language than L1 speakers, and they will tend to focus on the meaning of the individual words within the phrase in order to figure out the figurative meaning of the idiom even when embedded within context (e.g., Liontas 2002, Cooper 1999). This way of processing idioms is congruent with the compositional model introduced by Gibbs and colleagues (1989). Furthermore, the idiom key hypothesis plays a central role in the study, although it was modified to assess which constituent, the verb or the noun, within the idiomatic phrase acts as a key to aid the successful reproduction of common Spanish idioms in context, providing us with vital information as to what L2 learners consider to be the most essential part of an idiom. Because the noun is semantically richer in information than the verb, it was considered to be the key word in the idiomatic expressions.

2.2.1. Literal-First Hypothesis

The assumption that native speakers process idiomatic expressions literally before activating their figurative knowledge to retrieve idioms from a special list in their mental lexicon dominated early research on the topic. The existence of a special idiom list was proposed by Weinreich (1969). He suggested that a speaker's mental lexicon contains a list of idioms in addition to the usual lexical items. A normal lexical list entry consists of phonological, syntactic, and morphemic features plus a meaning description. The entry of an idiom item, on the other hand, includes a string of morphemes of various lengths plus its unique meaning (Liu 2007:48). One of the first studies favoring two separate models of processing, one literal and one idiomatic, was conducted by Bobrow and Bell (1973), who hypothesized that the literal meaning is accessed first, and only after its rejection is the idiomatic meaning activated. According to these researchers, an idiomatic phrase is processed as a single word, which is different from the way a literal expression is processed. In literal strings, each word is analyzed separately and mapped out to a semantic whole in order to produce a holistic meaning (Bobrow & Bell 1973:343). This idea was based on the results of two experiments they conducted with 414 undergraduate students, all native speakers of English. In the first experiment, 152 subjects were divided into two groups, and each group was given two different sets of sentences. The first set contained a total of five sentences. The first four were literal but semantically ambiguous sentences, such as *Mary fed her dog biscuits*, which can be interpreted two different ways, either as *Mary gave biscuits to her dog* or *Mary gave dog biscuits to some woman.* The final sentence was idiomatically ambiguous, that is, it could be interpreted either figuratively or literally, for example, *John stabbed Mary in the back*. The second set had five ambiguous idiomatic sentences, such as *John and Mary buried the hatchet*.

The subjects were instructed to read the sentences along with their two interpretations and mark the meaning they perceived first. The results were based on the answers given for the fifth sentence in each set. Eighty-four percent of the subjects in the idiomatic set saw the idiomatic meaning first, and 57% of the participants in the literal set reported seeing the idiomatic meaning first. The researchers also calculated the "bias" of an ambiguous sentence by computing how many of the participants reported interpreting figuratively the first sentence of the idiomatic set. This particular sentence served as a baseline: because it was given first in the set and ahead of the experimental fifth sentence, it was free of influence. In this case, 82% of the subjects reported interpreting the first sentence figuratively.

The second experiment was done to seek additional support for the results of the first one, as well as to test the relationship between idiom and lexical ambiguity processing. The researchers speculated that the two processes are very closely related. Of the 262 subjects who took part in the study, 93 were given the idiomatic set, and the rest of the participants completed the literal set of sentences. The literal set was divided into two more subsets. The first subset included literal phrases with surface structure ambiguity, for example, *John and Mary talked about the problem with the president.* The second subset included lexically ambiguous sentences, for example, *John bought the plant*. In this experiment, each set contained six sentences; five of which were the experimental set and the last being a "low-bias" idiomatic sentence, such as *John had sticky fingers*.

Overall, the subjects reported that they interpreted metaphorically the set of sentences that contained idioms only. On the other hand, if the set contained literal sentences only, then they were more likely to interpret the ambiguous idiomatic sentence literally as well. Also, the lexical set that the researchers speculated would act like the idiomatic one did not produce any

significantly different results in the study, and thus did not offer sufficient proof that lexical ambiguity is processed in the same way as idioms are. Based on what the students reported, Bobrow and Bell concluded that there are two different and separate processing modes (Liu 2008:48). Nevertheless, the literal-first hypothesis did not gain much popularity because it implied that if "all expressions must always be analyzed literally and before any idiomatic meanings are sought, then literal meanings should be understood more quickly than the idiomatic ones" (Gluckberg 1993:5). However, this generalization was not strongly supported by the results of empirical studies because "the literal meanings of conventional idiomatic expressions are never understood more quickly than their idiomatic ones" (as was seen in later studies) (Gluckberg 1993:5).

To conclude, Bobrow and Bell assumed that speakers process idioms literally first and activate the figurative one only after the literal meaning is rejected. Their hypothesis was based on two experiments conducted with native speakers of English who interpreted metaphorically the set of sentences that contained idiomatic expressions and interpreted literally the set with nonidiomatic sentences. The results allowed the researchers to conclude that there are two separate modes for interpreting idioms. Although their hypothesis received limited support with regard to L1 idiom processing, it can be applied to some extent in the L2, especially when L2 learners are dealing with unfamiliar idioms. In particular, when L2 speakers are familiar with all of the individual words within the idiomatic string but are not aware of its figurative meaning, they may process it literally first. Only after the literal meaning does not make any sense, will they assign a figurative interpretation to the phrase. This way of processing idioms in the L2 is one of the different strategies L2 speakers use when they are working out the meaning of unknown idioms, which is the focus of the second study in this dissertation.

2.2.2. Lexical Representation Hypothesis

Swinney and Cutler (1979) proposed a different hypothesis, according to which "idioms are stored in the [same] mental lexicon as individual items and are retrieved the same way as any other word" (Cacciari & Tabossi 1988:668). A simultaneous retrieval process of both literal and figurative meanings is initiated once the subject encounters the representation of the first word of an idiom; in other words, if the phrase has both a figurative and a literal interpretation (for example, *to break the ice*) it will be processed more quickly than a string with only a literal interpretation (such as *to break the cup*) (Tabossi & Zardon 1995) because the speakers are already familiar with the fixed idiomatic phrase and can retrieve it as a long word from their lexicon.

Swinney and Cutler's (1979) study showed, however, that metaphorical meaning takes precedence over the literal one because idioms, especially familiar ones, are stored and retrieved in a manner similar to long words and do not "require the lexical, syntactic, and semantic processing required for full linguistic analysis" (Gluckberg 1993:5). These researchers carried out two experiments to study how L1 speakers of English access, store, and comprehend idioms. In the first experiment, the twenty subjects were given 152 word strings and were asked to judge whether each of the strings formed a "natural" phrase in English. The word strings were divided into four groups. The first group consisted of 23 grammatical idiomatic strings, and the second group had 23 grammatical word strings designed to act as a control. Twelve of the word strings in the control group had the first word of the idiomatic string replaced to form a literal string, e.g., from *wrap it up* to *lift it up*. The other eleven idiomatic strings had the last word replaced, e.g., from *break the ice* to *break the cup*. The researchers also included 30 acceptable word strings and 76 ungrammatical ones in the experiment. The word strings appeared one by one on a

computer screen in random order. The speed with which the subjects judged the acceptability of each word string was recorded. The results showed that the participants judged the grammatical idioms as acceptable more quickly than the literal strings. Based on the information from the study, the researchers concluded that idioms are stored and accessed as lexical items (Swinney & Cutler 1979:528), lending support to the lexical representation hypothesis.

In the second experiment, Swinney and Cutler (1979) focused their attention on examining the correlation between the degree of syntactic frozenness of an idiom and its level of lexicalization. The forty-two subjects were given 59 strings of words and were asked once again to decide whether they were permissible phrases in English. The randomized phrases appeared on a computer screen. Twelve of the word strings were idiomatic and were divided according to their degree of frozenness, i.e., whether they can undergo any syntactic change without losing their figurative meaning: three were frozen, e.g., *shake a leg*. Another three idioms had a mild level of frozenness, e.g., *kick the bucket*. The next group of three idioms exhibited an intermediate level of frozenness, e.g., *break the ice*; and the final group of three idioms had maximum transformation applicability, e.g., *spill the beans* (Swinney & Cutler 1979:532). Another twelve literal strings served as distracters, and the remainder were ungrammatical strings. The findings suggested that the syntactic frozenness of a particular idiom does not have an influence on how fast it is recognized, processed, and retrieved from the mental lexicon. However, Swinney and Cutler still interpreted such results as supporting the lexical representation hypothesis because idioms are "stored and accessed as lexical items and not from some special list that is distinct from the lexicon nor by a special processing mode which comes into play when literal analysis fails" (Swinney & Cutler 1979:532).

Other studies also favor the lexical representation model. Estill and Kemper (1982), for example, asked subjects to monitor a specific target word that appeared in different contexts. Estill and Kemper tested how context would influence idiom comprehension. For the study, they tested sixty native speakers of English who were given a list of 24 sentences that belonged to one of four groups: 1) a sentence in which the idiom was used figuratively, for example, *Eventually the two men decided their argument was silly and that they should <u>bury the hatchet</u> once and for all*; 2) another sentence in which the same idiomatic expression was used literally, such as *To prepare for the scavenger hunt, Linda decided to hide the mirror under a flower pot, put the plate under the porch, and <u>bury the hatchet</u> behind the house*; 3) a third sentence in which the idiom was ambiguous and could be interpreted either literally or figuratively, for example, *To symbolize the end of the dispute, the two men decided to dig a hole and <u>bury the hatchet</u> once and for all*; 4) a control sentence that contained the final word from the idiomatic expression that was used literally, such as *The woodsman forgot to take the <u>hatchet</u> when he went camping*. The subjects performed three different tasks. In the first task, they had to identify a cue word, for example *hatchet*. In the second task, the participants heard a word that rhymed with the cue word, for example *rachet*; and in the final category task, they listened for a word that was a member of a specified semantic category, such as *a tool.* The reaction times after hearing the cue words were recorded.

The results showed that the participants were faster at monitoring the target word when it was included in the idiomatic expression (either literal or figurative) than in the non-idiomatic control context. This is possible because retrieval of idiomatic meaning is quicker than the computation of the literal meanings of nonidiomatic phrases. The data favor the lexical representation hypothesis since the literal and figurative meanings of idioms are comprehended

simultaneously. The researchers did not find any reaction time advantage for either literal or figurative idioms in any of the monitoring tasks. Furthermore, context also played an important role once the idiomatic meaning was activated because it facilitated the figurative comprehension of the word string: "depending on the nature and length of this context, the meaning of figurative idioms may be more rapidly integrated than the meaning of literal idioms" (Estill & Kemper 1982:567).

To conclude, Swinney and Cutler's (1979) findings refuted the notion that there is a separate idiom list. Instead, they stipulated that idioms are stored in the mental lexicon as individual items and are retrieved as long words. The results from their study demonstrated that familiar idioms are processed more quickly and without being analyzed syntactically and semantically. Estill and Kemper (1982) also found partial support for the lexical representation hypothesis because the literal and figurative meanings were comprehended simultaneously by their subjects. Although there is no evidence that L2 learners process simultaneously the figurative and literal meaning of an idiom, this hypothesis is still relevant to the present work because both advanced L2 learners and native speakers indeed retrieve familiar idioms as long words without any linguistic analysis, as was observed in the second experiment in this dissertation.

2.2.3. Direct Access Hypothesis

An ever-increasing body of research has shown that the literal meaning of idioms is not necessarily activated before the metaphorical one in the L1, especially when appropriate context is presented (Gibbs 1980, 1986). Gibbs (1980) tested the influence of the conventionality of idioms on the speed of comprehension and processing of such phrases. He designed three experiments for this purpose. In the first experiment, he tested native English speakers'

comprehension of idioms that can be interpreted either literally or figuratively. The phrases were introduced both in context and in isolation. Gibbs hypothesized that the context would have a positive influence on the speakers' processing speed of idioms with conventional meanings. Examples of the stimuli used in the experiment are as follows:

Set A: (Literal context)	Set B: (Idiomatic context)
Nick and Sue were listening to Jackson Browne on the radio. "All Jackson Browne songs sound alike." Sue said. "Now isn't that the same song we heard him do on TV recently?" "No." Nick replied; *"He's singing a different tune."* **Paraphrase:** "He is not singing the same song."	On TV there was a program discussing Carter's first year in office. One reporter talked about the military budget. "In the campaign Carter promised to cut that budget." "But now that he's President," *"He's singing a different tune."* **Paraphrase:** "He has now changed his mind."
No context: *"He's singing a different tune."* **Paraphrase:** "He is not singing the same song."	**No context:** *"He's singing a different tune."* **Paraphrase:** "He has now changed his mind."

Forty-eight undergraduate students took part in the study. The subjects were assigned at random into one of two groups. The first group was presented with sixteen stories, half of which ended with idiomatic target sentences and the other half with literal target sentences. Each target sentence was followed by a paraphrase that offered either the literal or the idiomatic interpretation of the last sentence. There were another twelve filler stories with false paraphrases. The second group was given only the final sentence along with its idiomatic or literal paraphrase. The twelve filler paraphrases were also included, along with another 16 non-idiomatic sentences for control. Each story was presented one sentence at a time on a computer screen. Once the subjects were done reading the sentence and a comprehension check was performed, the next

sentence appeared on the screen. When the participants reached the final target sentence, they read a possible interpretation of the last sentence and were asked to make a true/false paraphrase judgment. Their responses were timed.

Analysis of the correct answers showed that the subjects took longer to make paraphrase judgments with the literal phrases than in the idiomatic ones when they were presented with and without context, thus demonstrating that idiomatic paraphrases were understood more quickly. "Subjects spend significantly more time processing idioms with literal meanings than those with idiomatic interpretations" (Gibbs 1986:152). Nevertheless, context played an important role in determining the literal meaning of the target paraphrases. The results showed that the subjects committed more errors in the out-of-context sentences, not knowing how to interpret them without semantic and pragmatic clues.

The subjects spent more time processing idioms with literal meanings, which, according to Gibbs, indicates that conventionality plays an important role in the interpretation of idioms. Because the literal use of the idiomatic phrases was unconventional, the participants took longer to process them. This suggests that "ease of comprehension for non-literal language may be more a matter of how conventional a sentence is than how literal or metaphoric it may be" (Gibbs 1986:152).

In the second experiment, the subjects heard the stories used in the first experiment twice and twenty-four hours later were asked to recall the stories and write down the last sentence of each story. Ninety percent of the sentences were scored as correct, i.e., all of the key words were given. Subjects were more successful at recalling the literal target sentences than the idiomatic phrases. Intrigued by the results, Gibbs performed another experiment. He was interested in investigating whether the literal paraphrase of the idiom can facilitate its recall. Once more the

stories from the first experiment were used. The subjects heard stories that contained either literal or idiomatic target sentences. For the recall session, the participants were given a booklet that contained either literal (e.g., *cat*) or idiomatic prompts (e.g., *reveal a secret*) for a sentence such as *You can let the cat out of the bag*. For the no-context condition the subjects heard forty sentences. Sixteen of those sentences contained idiomatic expressions. Twenty-four hours later the participants were asked to recall the target sentences using the prompts. The 48 subjects were randomly assigned to one of three sets: A, B, or no-context. Half of the subjects in each condition received the literal prompts and the other half the idiomatic prompts. They were asked to write down the last sentence from each story, whereas the no-context group only had to write the sentences they heard.

The results showed that literal clues aided greatly the recall rates for both literal and idiomatic interpretations with and without context. Nevertheless, the importance of appropriate context to aid the correct interpretation of such phrases was once more highlighted. Because of those results, Gibbs concluded that the subjects analyzed the sentences idiomatically at some point during comprehension even when the literal interpretation was required, suggesting that even when unconventional, i.e., literal use of idioms is required, the subjects first process its conventional figurative meaning before arriving at the literal one. Therefore, according to the direct access hypothesis, proposed by Gibbs, the activation of the idiomatic meaning precedes the literal one, which is activated only if the metaphorical meaning fails to be integrated with the context (Cacciari & Tabossi 1988). Thus, linguistic processing may be bypassed entirely if an expression is recognized immediately as an idiom (Gluckberg 1993:5).

Cronk and Schweigert (1992) also tested the correlation between idiom familiarity and literalness and their effect on idiom comprehension. Twenty-four undergraduate students, all

native speakers of English, took part in the study. The testing materials contained 40 idioms divided evenly into to four groups and used either literally or figuratively in a sentence. In the literal group, the first ten idioms were familiar with high literalness, for example, *When Kim returns from the mall, everyone will wonder what she has in the bag*. Another ten idioms were less familiar with high literalness, such as *He looked though the telescope to see stars*. The other ten idioms were familiar with low literalness, for example, *Robert had to give the tailor the shirt off his back.* The final group contained ten idioms that were less familiar with low literalness, such as *Squirrels like acorns even though they are a hard nut to crack*. In the figurative group the idioms followed the same division. Ten were familiar with high literalness, e.g., *After coming back from her interview, Stacey knew she had the job in the bag*. The next group consisted of ten less familiar high literalness idioms, e.g., *If you get hit in the head you may see stars*. The third group had familiar idioms with low literalness, e.g*., A kind man would give the shirt off his back.* And the final group contained less familiar idioms with low literalness, e.g., *The interrogator said the spy was a hard nut to crack.* Another twenty sentences were added for control. The subjects were asked to read the 40 idioms, half of which were used literally and the other half figuratively. The materials were given one word at a time on a computer screen. The reading times for each word were recorded.

After an ANOVA analysis was performed, the results showed that sentences with idioms that were used figuratively were read faster by the subjects. Also, the familiar idioms were read faster than the sentences with less familiar idioms used figuratively. Furthermore, familiar idioms used figuratively were read faster than familiar idioms used literally. On the other hand, less familiar idioms with low literalness were read more slowly than less familiar idioms with high literalness. Cronk and Schweigert (1992) interpreted the data as partially supporting Gibbs'

(1986) figurative-first hypothesis since the familiar idioms were processed faster than the idioms from other groups. However, the fact that less familiar idioms with high literalness were processed faster than the less familiar idioms with low literalness led Cronk and Schweingert to conclude that there is more evidence in favor of the simultaneous processing model proposed by Swinney and Cutler (1979).

To sum up, Gibbs (1986) showed that, with appropriate context, familiar idioms enjoy processing advantage over literal interpretations by bypassing linguistic processing. This hypothesis can also be extended to L2 learners, who also process familiar idioms as wholes without resorting to decomposing them, as was observed in the second of the two experiments in this dissertation. Cronk and Schweigert (1992) also found partial evidence in support of Gibbs' (1986) hypothesis because familiar idioms were processed faster than less familiar idioms in their experiment.

The noncompositional view, however, is now being challenged by studies showing that idioms are in fact decomposable, in the sense that the individual words contribute to the overall meaning. The new, compositional approach focuses on the internal semantic structure of idioms, which plays an important role in idiom comprehension. This approach also supports the notion that literal processing does not stop once the idiomatic meaning is encountered. Rather, the idiomatic meaning is built simultaneously out of literal word meanings and their particular interpretation within context (Titone & Connine 1999:1661).

2.3. Compositional Approach

In the late seventies, Nunberg proposed a semantic taxonomy to characterize how literal word meanings of idiom components contribute (or don't) to the overall interpretation of idiomatic phrases (Titone & Connine 1999:1661). Gibbs and his colleagues (Gibbs, Nayak,

Bolton, & Keppel 1989a; Gibbs, Nayak, & Cutting 1989b; Gibbs & Nayak 1989) adopted the

typology and carried out numerous studies that supported the taxonomy, showing that speakers

are capable of classifying idioms into the three categories. Also, in terms of processing, the

participants in the study read sentences containing decomposable idioms faster than sentences

with non-decomposable idioms (Titone & Connine 1999:1661-2).

 According to Gibbs and Nayak (1989), idioms fall into three groups, depending on their

level of semantic analyzability or literalness, which is interpreted as the extent to which the

individual lexical parts contribute independently to the idiom's overall meaning and transparency

(Liu 2008:79): decomposable (transparent), abnormally decomposable (semi-transparent), and

non-decomposable (opaque). The individual lexical components contribute to the overall

figurative meaning in the decomposable idioms, e.g., *pop the question*. This phrase is easily

understood because the noun 'question' refers to marriage proposal and the verb 'pop' is used to

refer to the act of uttering it (Gibbs, Nayak, & Cutting 1989b:577). However, with abnormally

decomposable ones, the individual elements make an indirect contribution to the overall

figurative meaning. For example, in order to understand the phrase *to give the green light*, one

must know that a green light in traffic means to go and from there arrive at the intended

figurative meaning of giving permission to somebody to do something. In non-decomposable

idioms, on the other hand, the individual parts do not contribute to the overall figurative

meaning, such as *to kick the bucket*. There is no apparent connection between the meanings of

the words *kick*, *the*, and *bucket* and the concept 'to die' (Gluckberg 1993:7).

 To test the compositionality of idioms, i.e., whether the combination of words contributes

to the overall figurative meaning of the phrase, Gibbs, Nayak, Bolton, and Keppel (1989a)

carried out a series of experiments with native speakers of English. In the first experiment,

twenty-four undergraduate students were asked to judge whether the individual constituents contribute to the phrase's figurative interpretation and group the phrases in two groups, either as decomposable or non-decomposable. They were instructed to further divide the decomposable idioms to normally decomposable and abnormally decomposable. Thirty-six idioms from the three groups, normally decomposable, abnormally decomposable, and non-decomposable, were used for the study. The idioms were also matched with paraphrases of their figurative meanings, for example, *weigh your words; choose what you say very carefully*. The researchers interpreted the results in favor of the idiom decomposition hypothesis because the subjects intuitively grouped the idiomatic expressions within the three groups with a very high level of agreement: 86% for the normally decomposable, 79% for the abnormally decomposable, and 88% for the non-decomposable.

In the second experiment, the researchers continued testing lexical flexibility and its relation to literal well-formedness as a way of predicting such flexibility. The subjects were asked to judge whether literally well- and ill-formed idiomatic expressions would retain their figurative meaning when one or more of their constituents was altered. According to Gibbs et al. (1989), some idiomatic phrases are literally well-formed (e.g., *hit the books*), and others are literally ill-formed (e.g., *swallow one's pride*). They stipulate that such phrases are represented differently in the mental lexicon and continue on to explain that:

> Literally well-formed idioms may receive their meaning according to the rules of
> semantic composition that combine the meanings of the parts into well-formed
> syntactic constituents. These same rules will not be applied to the expressions that
> do not conform to the normal syntactic rules of language. Expressions that do not

possess well-defined literal meanings must receive their interpretations by

stipulation in the lexicon. (Gibbs et al. 1989a:62)

The fifty-four participants were given sets of materials containing twenty literally well-formed idioms and twenty literally ill-formed idioms. Within each set, five expressions had no changes made to them, e.g., *pop the question*, five had a verb change, e.g., *burst the question*, another five had a noun change, e.g., *pop the request*, and the final five had both verb and noun changes, e.g., *burst the request*. The phrases were also paired up with a paraphrase of the idiomatic meaning. All phrases were embedded within sentential context.

After a statistical analysis was performed, the data revealed that L1 speakers do not correlate lexical flexibility with lexical well- or ill-formedness, i.e., the literal contribution of the individual constituents to the overall figurative meaning of the phrase is not seen as indicative of lexical flexibility (whether one constituent can be replaced with another of the same kind without altering the overall figurative meaning of the idiom).

In the next experiment, Gibbs et al. (1989a) focused on the relationship between syntactic productivity and lexical flexibility. They hypothesized that syntactically productive idioms are more flexible in their lexical makeup than the syntactically frozen ones. Thirty-six participants were given a booklet containing thirty-two idioms, half of which were syntactically frozen, and the other half of which were flexible. Once more the researchers altered the idioms in different ways by either changing the noun or the verb or both (similar to experiment 2). There was also a group of eight idioms from both groups that was left unchanged. All of the phrases were given

in context and paired with a literal periphrasis. The subjects had to read each idiom-periphrasis

pair and judge the degree of similarly between the two expressions. For example:

      Verb changed to present participle: *Mary was just letting off some steam and didn't*

      mean to hurt anyone.

      Adjective inserted: *Mary let off some hidden steam when she yelled at her daughter.*

      Adverb inserted: *Mary quickly let off some steam when she yelled at her daughter.*

      Voice changed to passive: *Some steam was let off by Mary when she yelled at her*

      daughter.

      Action nominalized: *The letting off of some steam by Mary helped her feel much better.*

      Particle moved: *Mary let some steam off when she yelled at her daughter.*

The researchers' hypothesis was confirmed by the results of the study, demonstrating that

syntactically productive idiomatic expressions were also seen as more decomposable because the

individual lexical items contributed to the overall meaning even when they were replaced with

another acceptable lexical item. "Changing one semantic component disrupts the overall

idiomatic meaning less for semantically productive idioms than for syntactically frozen idioms.

Because the individual components' meaning plays a small role in the overall figurative

interpretation of syntactically frozen idioms, it makes less sense to change any of their individual

lexical items" (Gibbs et al. 1989a:64).

      Drawing on the conclusions made from the different experiments, Gibbs et al. (1989a)

insist that people process idioms differently depending on the degree of semantic decomposition.

For example, the decomposable idioms are analyzed in a compositional manner because speakers

are able to access and analyze literally every component within the phrase. The researchers equated such analysis to the way literal speech is processed. However, this is not to say that idioms are always analyzed literally (Gibbs 1986 showed that most idioms are analyzed figuratively and the literal meaning is bypassed); rather, the parts of the phrase contribute to its overall metaphoric meaning. Furthermore, the compositional parsing also allows for syntactic flexibility where the idiom can be altered temporally or passivized without losing its figurative meaning, for example, *John laid down the law* can be altered to *The law was laid down by John*. The compositional flexibility also allows for lexical alteration because separate meanings can be attached to the phrases' individual constituents, for example, *button your lips* can be replaced with *fasten your lips*. On the other hand, Gibbs et al. explained that the non-decomposable idioms are processed differently in that the non-literal meaning is retrieved directly from the mental lexicon since the idioms are stored as lexicalized chunks. Thus "the non-decomposable idioms are understood through recovery of their figurative meanings, which have been directly stipulated as meaning postulates" (Gibbs et al. 1989a:66-67). Gibbs and colleagues' findings are also relevant to the way nonnative speakers process unknown idioms, because they rely on decomposing them as a way of figuring out their meaning, especially if the contextual information does not offer sufficient information. On the other hand, both native and nonnative speakers retrieve directly the idioms they are familiar with without resorting to decomposing them. This way of processing the idioms was observed in the second study in this dissertation.

Furthermore, Gibbs and Nayak (1989b:104) proposed that the notion of decomposability is not only a semantic feature of idioms but is also directly related to the speaker's judgment of how the meaning of the parts contributes to the figurative meaning of the whole. The view that compositionality is directly linked to the speaker's attitude is also supported by Vega-Moreno.

She states that "transparency and opacity are not fixed properties of idioms, but dimensions along which they can be characterized by a particular person on a particular occasion (e.g., at a particular point of time). Whether an idiom is perceived by an individual as more or less transparent at a certain moment would greatly depend on the assumptions available to him at the time, and their degree of accessibility" (Vega-Montero 2005:405). This observation proved to be especially true during the fill-in-the-blank task in the present study, specifically when the two groups of L2 learners had to reproduce the missing constituent of the idiom *no dar el brazo a torcer* 'not to let one's arm be twisted.' The group that needed to provide the missing verb treated this idiomatic string as an opaque one and had considerable difficulty providing the correct verb *dar,* whereas the group that needed to supply the missing noun had considerably less difficulty providing the missing noun *brazo*. They interpreted the idiom as more transparent and were able to make a connection between the two languages because they share the same underlying metaphor. The difference in the interpretation of the same idiom by the two groups demonstrated that the formal classification of idioms as transparent or opaque does not always correlate with the L2 learners' understanding of a particular idiom and their ability to reproduce it correctly.

2.4. (Configuration Hypothesis) Idiom Key Hypothesis

The Idiom Key Hypothesis assumes that native speakers literally analyze the idiomatic string until a key word triggers the figurative recognition, giving way to the activation of the metaphoric meaning of the phrase (Cacciari & Tabossi 1988). Although this hypothesis does not deal directly with compositionality, it is still set forth in order to discover when the idiomatic meaning is activated within the phrase once a native speaker encounters an idiom. In order to better understand the process of idiom comprehension, several scholars (Cacciari & Tabossi

1988; Tabossi & Zardon 1993, 1995) worked on locating exactly when and how the meaning of an idiomatic expression becomes available to the listener during discourse. Based on the findings from these studies Cacciari and Tabossi (1988) formulated an idiom key hypothesis stating that "an idiomatic string begins literally until sufficient information in the string makes it recognizable as idiom" (Liu 2008:60). Interestingly, the results of all of these studies showed that the key of an idiom does not depend on context, due to the tendency of language users to interpret a phrase as an idiomatic one even when literal interpretation is also possible. Cacciari and Tabossi (1988) carried out a study with 30 subjects, all native speakers of Italian were divided into two groups and, were given increasingly longer idiom fragments out of context, and asked to complete each phrase. There were nine idioms in total that were presented in random order to each participant. For example, for the idiom *to be in seventh heaven*, the subjects in the first group were given the fragment *to be in* and were asked to complete the string. The second group received the same fragment that was expanded to *to be in seventh*. The results showed that the subjects were more successful in completing the strings idiomatically once the word 'seventh' was presented, thus making the word '*seventh*' the key that triggers idiom recognition. The success rate was 34% for the first group and 45% for the second group. However, this phrase also could have been completed literally as 'to be in seventh place,' yet the majority of the participants chose the idiomatic meaning. It is important to note that the key word, although the most essential part of the idiom, does not seem to have a fixed place, such as being the first, second, or even third word in an idiom string. Its location depends on the idiom itself because the key word does not have any formal property: "It does not correspond to a point after which the

language offers no other acceptable possibility to complete the string idiomatically; it has no special syntactic role, nor does it necessarily make a syntactic or semantic anomaly" (Tabossi & Zardon 1993:156).

In another study conducted by Tabossi and Zardon (1993) the subjects were asked to complete the idiomatic meaning in phrases with the syntactic structure of Verb (Noun Phrase) (Prepositional Phrase) (Prepositional Phrase). The researchers designed two experiments in which 24 well-known Italian phrasal idioms were embedded into sentences. A group of twelve idioms was used in the first experiment, where the key word was the first content word after the verb. In the second experiment the key appeared as the second content word. All of the idioms were presented auditorily, and the subjects also received visual stimuli of a target word that was related semantically to the meaning of the idiom. For example, for the idiom *to hit the nail on the head*, the subjects saw the word *accurate*, which is semantically related to the figurative meaning of the idiomatic phrase. The targets appeared after the verb, after the first content word, or after the second content word, thus creating three separate sets of material. For example, *In the end, the man hit the nail on the head*. ACCURATE. There were also another 108 filler nonidiomatic sentences with target visual stimuli that served as distractors. The subjects had to perform a lexical decision task in which they had to decide whether the word on the screen was a real word. The results indicated that in the first experiment the subjects were able to complete the idiom once they were given the first content word after the verb, and, in the second experiment, after the second content word. The researchers stressed the fact that "the point of activation of an idiom during its processing depends on the characteristics of the string: when its key occurs early, its meaning is activated early; when the key is later, so too is activation" (Tabossi & Zardon 1992:153). The location of the idiomatic key, however, does not seem to correlate with

the compositionality of the idiom. According to Titone and Connine (1999:1665) the function of the idiomatic key is simply to provide enough information to the language user that would enable him to extract the idiomatic pattern and retrieve a meaning.

The idiom key hypothesis is central to the first study in this dissertation. It is used to test which constituent, the verb or the noun, within a group of idiomatic phrases acts as an idiom key, providing essential information about the idiom in the second language and allowing the L2 learners to produce successfully the missing word within the idiomatic phrase. The originally proposed idiom key hypothesis was modified, since the participants were advanced second language learners who had to provide the missing word of the phrase within a context. Establishing which word is considered the most important part of the idiomatic string helps us gain a better understanding of the cognitive processes employed by the non-native speakers while attempting to reconstruct the idioms. It also provides insightful information about the role of single word vocabulary in idiom acquisition.

2.5. Hybrid Theory

A third approach among the compositional-noncompositional dichotomy models intends to create a hybrid theory of idiom comprehension. Titone and Connine (1999) acknowledge that both noncompositional and compositional approaches have their merits under certain conditions. For example, when L1 speakers encounter a highly familiar idiom, they process it faster than a literal string. Since it is already stored in their mental lexicon as a long word, they are not compelled to decompose it. On the other hand, when faced with a less familiar, novel, or unknown idiom, L1 speakers often rely on the individual constituents within the idiomatic phrase

to figure out the metaphoric meaning of the word string. Due to the existing evidence that native speakers use both approaches, Titone and Connine proposed a hybrid model of idiom comprehension that:

> Characterizes idiomatic expressions both as unitary word configurations and compositional word sequences, thereby incorporating aspects of the noncompositional and compositional approaches. According to this hybrid model, activation of idiomatic meanings, and activation and use of literal meanings during comprehension, will be a function of the degree to which idioms are conventional and compositional.
>
> (Titone & Connine 1999:1666)

Therefore, according to their proposal, the difference in processing or using one model over the other will depend on the type of idiom the L1 speaker is interpreting as well as his/her degree of familiarity with the idiom. This is possible because idioms can be stored as a function of their compositionality, transparency, and conventionality as classified by Nunberg et al. (1994). The compositional function can be applied when an idiom is (semi) decomposable and the individual parts contribute to its meaning directly or indirectly, e.g., *to break the ice* (Titone & Connine 1999). On the other hand, the conventionality of an idiom will allow for it to be interpreted rapidly and holistically without the need of decomposing it, e.g., *chew the fat* (Titone & Connine 1999).

To investigate the effect of decomposability on idiom comprehension, as well as the degree to which idiomatic and literal meanings are initially computed during idiom processing, Titone and Connine (1999) designed an experiment in which they tracked participants' eye

movements. Twenty-four subjects were asked to read 32 highly frequent idioms with literal

counterparts. Sixteen of those were decomposable idioms and the other sixteen, non-

decomposable. All of the idiomatic phrases were embedded in sentences that were biased either

towards the literal or the idiomatic meaning (Titone & Connine 1999:1668).

Examples of the types of idiomatic phrases used in their study include:

1) Non-decomposable idiom, context following: *She finally <u>kicked the bucket</u> after being ill for*

months.

2) Non-decomposable idiom, context preceding: *After being ill for months, she finally <u>kicked the</u>*

<u>*bucket*</u>.

3) Literal context following: *She finally <u>kicked the bucket</u>, forgetting to move it from the path.*

4) Literal context preceding: *Forgetting to move it form the path, she finally <u>kicked the bucket</u>.*

5) Decomposable idiom, context following: *He tried to <u>save his skin</u> by getting his work done on*

time.

6) Decomposable idiom, context preceding: *By getting his work done on time, he tried to <u>save his</u>*

<u>*skin*</u>.

7) Literal context following: *He tried to <u>save his skin</u> by avoiding the tanning salon.*

8) Literal context preceding: *By avoiding the tanning salons, he tried to <u>save his skin</u>.*

      Following the ANOVA analysis, results showed that reading rates for the non-

decomposable idioms were slower when context, regardless of bias, preceded the idiom, for

example, *After being ill for months, she finally <u>kicked the bucket</u>*. These results indicate that

semantic decomposability plays a role at a later stage of idiom comprehension when a specific

phrasal meaning needs to be integrated into a particular context (Libben & Titone 2008:104). On the other hand, reading rates for the decomposable idioms were not affected by the placement of the idiom within a particular context. For example, *He tried to <u>save his skin</u> by getting his work done on time/By getting his work done on time, he tried to <u>save his skin</u>.* According to Titone and Connine (1999:1669) such results indicate that the activation/generation of idiomatic and literal meanings of idiomatic phrases is mandatory for idiomatic expressions regardless of contextual bias. Because non-decomposable idioms have semantically distinct idiomatic and literal phrasal meanings, it takes longer for readers to integrate a contextually appropriate alternative. In contrast, because decomposable idioms have semantically related idiomatic and literal meanings, there is no processing cost associated with integrating a contextually appropriate meaning.

While the theory proposed by Titone and Connine (1999) intends to be a hybrid model of the previous two hypotheses, it, too, seems to fall short of being able to provide a holistic theory of idiom comprehension, processing, and production because, according to its classification of idioms, it doesn't seem to be equipped to deal with idioms that are non-decomposable and unfamiliar to the speaker. It merely suggests that such idioms will cause extra work in terms of processing. Nevertheless, Titone and Connine's hybrid model of idiom processing highlights the fact that speakers are not choosing one processing model over the other; rather, they opt to either decompose or retrieve an idiom directly, depending on their degree of familiarity with it. This manner of idiom processing can also be observed with L2 speakers, who, among other strategies, also make use of the compositionality continuum when processing, comprehending, and producing idioms—which is central to this dissertation.

2.6. Conclusion

Although idioms have been of great interest to many scholars, there is no unified definition of what constitutes an idiom. This is largely due to the different ways researchers have approached such expressions, i.e., whether they consider idioms from a syntactic, semantic, or discourse point of view. Nonetheless, there is agreement that such expressions (also known as FEIs or MWUs) should meet certain criteria in order to be considered idioms. In general, this type of expression should consist of multiple words and allow for very little syntactic and semantic permutation, although some phrases tend to be more flexible than others. Also, in general, such word strings are less transparent in terms of compositionality, though again there is a continuum ranging from very transparent to completely opaque phrases. Different researchers have offered a narrower or broader definition of the term, using these criteria as the base on which they have built their theories.

Many scholars consider compositionality to be one of the most important factors in determining how speakers comprehend, process, and produce idioms. Early studies on idiom processing and comprehension were dominated by the noncompositional approach, which was characterized by three hypotheses: the idiom list hypothesis proposed by Bobrow and Bell (1973), the lexical hypothesis introduced by Swinney and Cutler (1979), and the direct access hypothesis pioneered by Gibbs (1980). Nevertheless, numerous studies have shown that native speakers do not have a special idiom list in their mental lexicon, nor do they necessarily process the literal meaning first before rejecting it and adopting the figurative one. Gibbs' (1980, 1986) series of experiments demonstrated that highly familiar and conventional idioms are processed faster than their literal counterparts, completely bypassing the literal meaning. The noncompositional view, although very popular among generativists, was challenged by studies

showing that idioms are in fact decomposable, at least to some degree. The compositional

approach focused on the internal semantic structure of idioms rather than concentrating on the

syntactic structure, which was favored in the noncompositional view. The new, compositional

approach supported the notion that idiomatic meaning is built simultaneously out of the literal

meanings of the individual constituents within the phrase, along with their particular

interpretation within a particular context. Unsurprisingly, other scholars (e.g., Titone & Connine

1999) proposed a hybrid theory unifying the non-compositional and compositional views

because evidence supported both models under the right conditions. For example, highly familiar

and frequent idioms are processed faster than literal strings and are stored as long words in the

mental lexicon. Such a way of processing idioms supports the noncompositional view

(specifically, the lexical and direct access hypotheses). On the other hand, when speakers

encounter less known or unfamiliar idioms, they will try to decompose them in order to work out

their idiomatic meaning, thus favoring the compositional model. Nevertheless, even the hybrid

model does not offer clarification for how L1 speakers process opaque and unfamiliar idioms.

Although compositionality plays an important role in idiom comprehension in general, as it will

be shown in the present study L2 learners use a wider variety of strategies than L1 speakers

when working out the meanings of different idiomatic phrases in the L2, such as L1 transfer,

guessing from context, using pragmatic knowledge, etc. The next chapter examines studies

related to processing, comprehension, and production of idioms in the L2.

CHAPTER 3

IDIOM STUDIES IN SECOND LANGUAGE ACQUISITION

In this chapter, I outline important studies carried out on idioms in the L2, which in comparison with those done in the L1, especially with English as the L1, are far fewer. I first discuss studies related to idiom processing and production in the L2, once again, examining the dichotomy of non-compositional versus compositional processing of idioms. I also review studies done on the different strategies used by the L2 learners when faced with an unknown idiom. The conceptual metaphor theory is discussed alone and in light of being a viable tool for teaching idioms to L2 learners in the classroom. The importance of etymological elaboration as a successful technique for formally introducing idioms to L2 students is also considered.

3.1. Introduction

Studies on vocabulary acquisition constitute a rather complex topic, ranging from studying what it means to know a word to discussing whether implicit or explicit teaching will most benefit the L2 learner. In addition, there are scholars who prefer to focus on input as the most influential factor in acquiring vocabulary in the second language. In the past four decades, vocabulary studies have become central to L2 acquisition. As a result, it is now widely accepted that "vocabulary is a basic component of language proficiency which provides the basis for [the] learner's performance in other skills, such as speaking, reading, listening and writing" (Alemi & Tybei 2011:81). Even though vocabulary has become central to L2 theories, formulaic language in terms of idioms, sayings, clichés, discourse markers, and proverbs there is a lack of agreement on whether such sayings should be taught to L2 learners because it is believed that this part of

language is best acquired outside the classroom when interacting with native speakers (e.g., Schmitt & Carter 2004; Dorney, Durow, & Zahran 2004, among others).

However, for the past two decades in the cultural West, the successful acquisition of formulaic language by L2 learners has become central to vocabulary studies This issue merits being studied separately because it differs from single word vocabulary acquisition, as single words are far easier to acquire. Formulaic language consists of chunks that vary from those that are entirely frozen in their syntactic form, such as idioms (e.g., *back to square one*), to rather flexible ones, such as paradigmatic substitution, (e.g., *Pleased/Nice to meet you)*. However, formulaic language is not a homogenous category; rather, it is comprised of different lexical items, such as strong collocations (e.g., *tell a li*e), idioms (*to kick the bucket*), binomials (*research and development*), standardized similes (*crystal clear*), proverbs and clichés (*that's the way the cookie crumbles),* discourse organizers (*on the other hand),* and social routine formulae (*Have a nice day*) (Stengers, Boers, Housen, & Eyckmans 2011:321-2). L2 learners have the difficult task of mastering these fixed expressions in all their forms in order to be successful communicators in the L2. Although formulaic language is part of vocabulary, it presents an even greater challenge to the L2 learner due to its increased "learning burden" (Stengers et al. 2011)*,* meaning that the L2 learners should pay even more attention in order to acquire it successfully and know the appropriate situations in which they can use it.

Although the teaching of idioms to L2 learners of English has made strides in the language classroom in recent years, instruction of idioms to L2 learners of languages other than English is treated much the same way it was some thirty years ago when vocabulary teaching was "deemed as unnecessary and seen as some kind of auxiliary activity" (Nation 2001: xiii), secondary to grammar and phonetics. It is generally believed that L2 learners will pick up idioms

from exposure to the L2, so that there is no reason for figurative language to be explicitly taught in the classroom (Schmitt & Carter 2004:4). Another assumption is that the "best way to acquire phraseological competence is when the learner integrates into the particular culture because the context appropriate application of colloquial phrases cannot be learned from textbooks, but only through participation in real-life communicative events" (Dorney, Durow, & Zahran 2004:86).

Another reason for the lack of extensive research on L2 idiom acquisition in languages other than English may be the widely proclaimed notion that English is seen as especially idiomatic when compared with other languages. Stengers, Boers, Housen, and Eyckmans (2011:323) point out that the assumption that the English language is very idiomatic may be fueled by the availability of a wide variety of resources related to teaching and learning English idioms and phrasal verbs. However, comparative studies between English and Spanish corpora have shown that Spanish is just as idiomatic (Stengers et al. 2011:325). Stengers (2007) took random sets of 500 idioms found in both English and Spanish dictionaries and tested their frequency of occurrence in a 56-million-word English corpus and 73-million-word Spanish corpus. The findings showed that the mean for the frequency of occurrence was essentially identical for both languages (English idioms occur on average 24.56 times and Spanish 24.57 times) (Stengers & Boers 2008:363), thus refuting the claim that English is more idiomatic than other languages. However, Stengers et al. (2011: 326) also drew attention to the fact that the fixed word order in English facilitates learning of formulaic language whereas Spanish has a more flexible order and richer inflectional grammar than English, which may impede the successful production of formulaic language. While idiomatic language requires extra work on the part of the L2 learner, Schmitt (2008:340) suggests that language teaching methodology should not ignore phrasal vocabulary because it is very wide-spread in language and used for a

number of purposes, such as expressing a message or idea and realizing other functions, or establishing social solidarity. Furthermore, using phrasal vocabulary can improve learners' fluency in the L2.

In comparison to idiom studies done on the L1, the number of studies on L2 idiom comprehension, processing, and production is rather small. Fortunately, despite a lack of extensive research on idioms in the L2, the few available studies offer some very informative findings (Liu 2008:65) about L2 comprehension in terms of L1 interference and use of contextual information (Irujo 1986b; Liontas 2001, 2002b, 2003). The strategies used by L2 learners when dealing with unknown idioms have been of great interest to scholars as well (Cooper 1999; Bulut & Celik-Yazici 2004; Rohani, Ketabi, & Tavakoli 2012). Other researchers have focused on whether the L2 learners process the literal meaning before the figurative one (Cieślicka 2006; Siyanova-Chanturia et al. 2011; Conklin & Schmitt 2008). Also, in terms of processing and production, scholars are interested in investigating whether L2 learners will avoid idioms when asked to produce them in the L2 (Yorio 1989; Irujo 1993; Laufer 2000). In light of the importance of culture in relation to L2 idiom mastery, other scholars investigated the influence of etymological elaboration (Boers et al. 2007, 2008, 2009; Badheri & Fazel 2010) and familiarity with culture-bound domains related to metaphorical language (Deignan 2003; Boers et al. 2001, 2004; Bortfeld 2003) as ways to enhance comprehension, retention, and production of figurative language in the L2. Also, in recent years, teaching idioms to L2 learners formally in the classroom has become essential for improving idiomatic knowledge in the L2 (Zyzik 2010; Guo 2008, Samani & Hashemain 2012). In this chapter, I discuss studies in the L2 relevant to idiom processing, comprehension, and production as well as idiom teaching and acquisition.

There are only a handful of studies dealing with Spanish as an L2. However, I also incorporate studies that examine various L2s, including English as an L2, as it is most widely researched.

3.2. L1 Transfer, Interference, and the Role of Context

Studies that have examined the role of L1 interference and context have formed the bulk of research in the L2 acquisition of idioms. Irujo (1986b) conducted one of the first studies that dealt with the influence of learners' L1 on idiom acquisition in the L2 and examined the effects of the positive and negative transfer between languages. She carried out a study with twelve Venezuelan advanced learners of L2 English, who were college students enrolled at a major university in the United States. The subjects were asked to perform four tasks: a discourse-completion test, translation test, definition test, and a multiple-choice test. Forty-five idioms were included in the tasks. Fifteen of these idioms were identical in form and meaning in English and Spanish (e.g., 'to play with fire' *jugar con fuego*); fifteen were similar ('to cost an arm and a leg' *costar un ojo de la cara*); and fifteen were different ('to take the rap' *pagar el pato*).

In the discourse-completion task, the subjects had to produce the English equivalents of the Spanish idioms, which were presented in sentence-level contexts. The texts were translated into English as well but the idioms were omitted, prompting the participants to provide them. The translation task required the subjects provide the missing word from the idiomatic expression presented in English within context. In the third task, the participants were asked to write the definition of the idiom either in Spanish or in English. The final task was a multiple-choice test containing choices that included the correct paraphrase of the idiom, a sentence related to the correct paraphrase, a sentence related to the literal interpretation, and an unrelated sentence (Irujo 1986b: 291).

Statistical analysis of the data revealed that transfer (positive or negative) from the L1 is affected by the degree of similarity of the idiomatic phrases in the two languages, i.e., whether the idioms are identical, similar, or different in the L1 and L2. For this reason, the subjects did equally well with identical and similar idioms on the comprehension tests because they were able to map the meaning of the idiom in their L1 onto the L2 when the form was identical or similar. Although the different idioms continued to be problematic in the discourse-completion task as well, the participants also had problems correctly producing the similar idioms even when there were only slight differences in form. In addition, the subjects were least successful in providing the correct missing word from the idiomatic phrase in the translation task when the level of dissimilarity increased between the two languages.

A more detailed analysis of the results showed that the identical idioms were the easiest to comprehend and produce. Those were followed by the similar ones, which showed interference from the native language, especially in the discourse-completion task. Different idioms were the most difficult to comprehend and produce, but showed less interference from the native language than the similar idioms possibly because the subjects did not rely on direct translation. "[T]ransfer was more in evidence with similar idioms than with different ones, probably because subjects recognized the similarity and assumed that they would transfer" (Irujo 1986b:294). The findings suggest that the L1 may assist in comprehension of L2 idioms when they are identical or similar, although when they are similar, there is also interference, and that the L1 is not helpful when the idioms are different.

In three separate studies, Liontas (2001, 2002b, and 2003) obtained similar results; however, he also focused on studying how context, or the lack of it, affects idiom comprehension in the L2. For the first study, he chose seven native speakers of English who were students of

Modern Greek as an L2 in their third semester. The participants were given sixteen phrasal

idioms in Modern Greek. Six of these were identical in English and Greek (e.g., 'to become skin

and bones') and the remaining ten idioms were non-matching (different) in both languages. For

example, *με τρώει φίδι κολοβό* has the literal Greek translation 'a snake is eating me', but the

English idiomatic equivalent is 'to sit on pins and needles.' In the first part of the experiment, the

idioms were given without context; in the second part, the same idioms were presented in

context. The subjects were asked to provide the meaning of the idioms before giving their

English equivalent. The students were able to provide the correct answer 59% of the time when

the idioms were presented without context. Furthermore, the analysis revealed that the idiom

type, i.e., matching or non-matching, played a key role in the successful production of the

idioms. The subjects scored significantly better when they were given identical idioms in both

L1 (English) and L2 (Greek), but had considerable difficulties with the completely different

idioms. The success rate of the identical idioms reached 90%, whereas the success rate for the

non-matching idioms was only 40%. Liontas attributed this discrepancy to the semantic opacity

of the different idioms that require extra processing effort on the part of the L2 learner beyond

the mere translation of the lexical units, as is the case with the identical idioms. "This is due to

the need to compute first a literal and then idiomatic representation, resulting more often than not

in incorrect idiomatic definitions, interpretative hypotheses, wild guesses, and indecisions"

(Liontas 2001:16).

Furthermore, Liontas found that, with these participants, idiom interpretation is seriously

impaired if there is a lack of context surrounding the idioms. On the other hand, if context is

added, the overall rate of accuracy increased to 83%. Both types of idioms were comprehended

better, allowing the subjects to improve their performance and correctly interpret the identical

idioms 100% of the time. The success rate increased for the different ones as well, reaching 73%. Although the results suggest that context positively influences the L2 learner's ability to comprehend and produce idioms, Liontas' results from the current study are somewhat undermined by the small size of the participant group. To seek more empirically reliable data on the influence of context in the comprehension and production of idioms in the L2, he carried out two more studies with greater numbers of participants.

Liontas (2002) examined the degree to which idiom type affects the speed of idiom comprehension and interpretation as well as the effect that context exerts on idiom comprehension. He tested a larger group of third year college L2 learners from three different languages: Spanish, French, and German. The fifty-three subjects completed two tasks involving idiomatic expressions; fifteen idioms were used per language, amounting to 45 idiomatic expressions in total. These expressions were divided equally into three groups according to the degree of similarity between the L1 and the L2, i.e., 15 idioms were identical syntactically, semantically, and conceptually in both L1 and L2; and Liontas named these lexical level hypothesis idioms, or LL (e.g., *Yo creo que mis ojos eran más grandes que mi estómago*; 'One's eyes are bigger than one's stomach'). Fifteen were similar, called semi-lexical level hypothesis idioms, or SLL (*Él[sic] que le quede el guante que se lo plante*; literally, 'If the glove fits, wear it!' or, idiomatically, 'If the shoe fits, wear it!'). Finally, 15 were different and identified as post-lexical level hypothesis idioms, or PLL (*Está buscándole pelos al huevo*, literally, 'to look for hair on the egg', idiomatically 'to split hairs'). In the first task, the subjects read the idioms on a computer screen one at a time without context and interpreted their meaning. The subjects had to describe the meaning for each idiom at the bottom of the screen. First, they had to give the meaning of the idiom. Second, they were asked to explain their strategies and thought processes.

In the second task, the same idioms were presented in context, which was either a narrative or dialogue longer than a sentence, and the participants were asked once more to provide their meaning. Once the idioms were interpreted within context, the participants' ability to correctly identify their meaning increased substantially across all three languages: from 75 to 91% for the identical idioms, from 48 to 76% for the similar idioms, and from 25 to 68% for the different ones. As in the previous study, the participants benefited most from context when it came to the interpretation of the similar and different idioms. The data also suggests that when L2 learners are faced with an unknown idiom, the degree of similarity or the lack of it will influence greatly the correct interpretation of the metaphoric phrases. They will also take longer to process the information since direct translation will not be useful. "Idiom performance may depend on idiom type, that is, on the conceptual-semantic image distance (i.e., the degree of opacity) between target language and native language idioms" (Liontas 2002b:166).

It needs to be noted, however, that the success rate for all three types of idioms varied for the different languages included in this study. The data showed that the most successful were the L2 learners of German, whose results were much higher for all three types of idioms than the scores for the two Romance languages. The L2 learners of German identified correctly the different idioms without context 50% of the time, in comparison to the L2 French learners with 9% and L2 Spanish learners with 17%. The average for the L2 German group for the similar idioms was 65% without context, whereas the L2 Spanish and French groups scored near the 65 percentile once context was introduced. Although the identical idioms were the easiest to produce without context in all three languages, the L2 learners of German identified the idioms correctly 83% of the time, versus 73% for the French and 69% for the Spanish groups. Although the author did not offer an explanation, these results suggest that the type of L2 influences the

ease of production of the different idioms, and that other factors may also account for differences in idiom comprehension and production across the three languages.

In a third study, Liontas (2003) continued to explore the influence of context along with the effect of idiom type on comprehension and interpretation in the L2. For this investigation, he included twenty-eight third-year L2 learners of Spanish, all native speakers of English. The subjects worked with vivid phrasal idioms (VP) (e.g., *tomarle el pelo 'to* pull one's leg') that were identical (LL), similar (SLL), and different (PLL) in the L1 and L2. The researcher used the same distinctions for the three types of idioms as in his previous study. Liontas (2002:78) defined VP idioms as "easily visualized in the mind of the learner by evoking a powerful mental image due to its concrete 'picturesque' meaning." In the first task the participants were asked to produce the most plausible meaning for each idiom out of context. The idiomatic phrases were presented one at a time on a computer screen. For the second task, the same fifteen idioms were presented within context. The author defines context "as paragraph length narrative (five to ten sentences long) or a two person dialogue (two to seven exchanges) written with the natural tone of the target language in mind" (Liontas 2003:291). For example:

Spanish idiomatic text	English equivalent idiomatic text
Colgar de un hilo	**To hang by a thread**
Michelle: ¡Hola Juan! ¿Cómo has estado? No te he visto en las clases de español esta semana. ¿Dónde has estado?	*Michelle:* Hi John! How have you been? I haven't seen you in Spanish class this week at all. Where have you been?
Juan: ¡Ni me preguntes! He estado muy ocupado. Estuve pasando los días en el hospital.	*Juan:* Don't ask! I've been very busy. I have been spending all of my days in the hospital.
Michelle: ¿Qué tienes? ¿Qué ha pasado? ¿No estás enfermo, verdad?	*Michelle:* What's the matter? What happened? You're not sick, are you?
Juan: No, no soy yo quien está enfermo, es mi papá. El lunes de la semana pasada, mi papá estuvo en un accidente horrible.	*Juan:* No, it's not me, it's my father. He was involved in a terrible car accident last Monday.
Michelle: ¿Tu papá? ¿Está bien?	*Michelle:* You father? Is he all right?
Juan: No sé qué decirte. Los doctores no creen que está bien. Dicen que **está colgando de un hilo**. Ahora voy a verlo.	*Juan:* I don't know what to tell you. The doctors don't think so. They say that he is **hanging on by a thread.** I am on my way to see him now.
Michelle: ¡No te preocupes! Está en uno de los mejores hospitales del país. Estoy segura que lo van a cuidar muy bien.	*Michelle:* Don't worry! He's in one of the best hospitals in the country. I'm sure they will take good care of him.

The statistical analysis revealed that in the absence of context, the subjects were able successfully interpret the identical idioms 69% of the time. However when context was added, the comprehension of VP idioms increased significantly across all three groups. The subjects benefited most from the context while reading the different idioms. The success rate went from 17% in the zero-context task to 60% in the full-context task. What these results most strongly indicate is that understanding of all VP idioms, particularly different idioms, is significantly hampered by lack of context (Liontas 2003:297). Although context improved idiomatic performance in the L2 learners, they still took more time to process similar and different idioms

(in comparison to the identical idioms) "beyond the mere translation of the phrasal units because of the participants' need to compute first literal then idiomatic interpretations" (Liontas 2003:298). The difficulty of interpretation of the similar and different idioms is further exacerbated due to the nature of the idioms, i.e., their semantic transparency, especially when there is no clear L1 referent (Liontas 2003).

Liontas' results from the different studies are in line with Irujo's findings and confirm that when idioms are identical, in both L1 and L2, the L2 learners will use their L1 to comprehend and translate the idiomatic expressions correctly, resulting in the application of positive transfer even without the aid of contextual information. However, when the idioms differ even to a small degree, translation and direct transfer from the L1 onto the L2 will produce more incorrect results, i.e., the L2 learners will experience negative transfer from the first language to the target language. In those cases context will aid comprehension and production of similar and different idioms, although it does not always guarantee a successful outcome, a finding similar to the one in the present study.

3.3. Literal Meaning First Hypothesis

Other studies have suggested that L2 learners will rely mainly on the literal meaning of the constituents in order to figure out the figurative one. This type of processing priority is referred to as 'literal salience.' This term was borrowed from Giora's (1997; 1999; 2002; 2003) graded salience hypothesis. According to the literal salience view, "understanding L2 idioms entails an obligatory computation of the literal meanings of idiom constituent words, even if these idioms are embedded in a rich figurative context and if their idiomatic interpretation is well known to L2 learners" (Cieślicka 2006:116). The L2 learner, however, should have a good knowledge of the different words making up the idiomatic expression. One such study was

conducted by Cieślicka (2006). Forty-three Polish college students took part in the study as advanced learners of English as an L2. Forty idioms were selected for the study according to compositionality, i.e., decomposable or non-decomposable, as well as by their literalness. Cieślicka (2006:123-4) defines literalness as "the extent to which an idiomatic string can be interpreted in a literal fashion," and semantic decomposability is described as "the extent to which individual constituents of idioms contribute to their overall figurative interpretation." Each idiom was presented within a short, one-sentence, neutral context, and the subjects had to choose either the literal or the figurative meaning of the phrase in question. For each of the forty idioms, two pairs of target words were displayed visually. One was a word related to the figurative meaning of the expression (e.g., Peter was planning to tie the knot later that month–MARRY) and the other, an unrelated word matched in frequency, orthographic complexity, and length with the idiomatic target (e.g., MARRY –LIMIT). The target word was displayed either at the penultimate or offset place within the phrase.

The second pair of target words consisted of a literal target semantically related to the literal meaning of the list word of the expression (e.g., ROPE was the literal target for the word KNOT in the expression "to tie the knot"), and a control word that matched the literal target in terms of frequency, length, and orthographic complexity (e.g., the control for ROPE was RIPE). Along with the idioms, eighty filler non-idiomatic sentences were used. For the filler sentences, the visual stimuli were displayed at different positions within the phrase. During the experiment the subjects heard the sentences and the visual targets were displayed in the following matter:

Sentences	idiomatic target	control	literal target	control
Peter was planning to tie the knot later that month.	MARRY	LIMIT	ROPE	RIPE

The statistical analysis of the results supports the hypothesis that advanced learners of L2 English prioritize the literal meaning in the course of processing idioms in the L2 regardless of their familiarity with the particular idiom or its transparency. This is largely due to the fact that, in general, L2 learners become familiar with the literal meanings of the constituents long before they are exposed to the figurative meanings in fixed expressions (Cieślicka 2006:120); therefore, they process the literal meaning first.

When comparing the processing speed of figurative and literal idioms and novel phrases between native versus nonnative speakers of English, Siyanova-Chanturia, Conklin, and Schmitt (2011:268) also found evidence in favor of the processing advantage of the literal meaning of the idioms over their figurative meaning in advanced L2 learners, suggesting a greater processing cost of the idiomatic expressions in the L2. The native speakers, however, did not take longer to process the figurative meaning of the idiomatic phrases. Thirty-six advanced L2 learners of English with a variety of L1s and thirty-six native speakers, all of whom were college students, participated in the study. The subjects read a series of online stories containing either an idiom used figuratively ("at the end of the day"–eventually) or literally ("at the end of the day"–in the evening), or a novel phrase ("at the end of the war"), while their eye movements were tracked in order to determine the processing advantage of idioms over novel phrases. A total of sixty-three stories were used, divided into three sets with each containing an equal number of figurative and literal idioms and novel phrases. Each participant read only one of the sets.

The researchers analyzed the processing times for the full idiomatic phrase as well as the idiom recognition point. After examining reading times and fixations, the findings revealed differences in terms of processing idioms, both literal and figurative, and novel phrases between the two groups. The L2 learners took longer to read the different types of phrases, whereas the

native speakers only slowed down when reading novel phrases. While the native speakers processed the literal and figurative idioms at the same speed, the nonnative speakers had longer fixations and took more time to process the figurative meaning of the idiomatic expressions versus their literal one. "The nonnative speakers required more rereading and reanalyzing of the figurative meanings of the idioms" (Siyanova-Chanturia et al. 2011:265). Such findings suggest that "idioms are not represented in the mental lexicon of a nonnative speaker in the same way as they are represented in the lexicon of a native speaker" (Siyanova-Chanturia et al. 2011:265).

Conklin and Schmitt (2008) also conducted a study testing whether formulaic sequences are read faster than their literal counterparts by native and nonnative speakers of English. The results showed a different outcome from what the previous two studies by Cieślicka (2006) and Siyanova-Chanturia et al. (2011) had reported on the speed of recognition of figurative idioms. Twenty frequently-used English idioms embedded in cloze tests with short contexts were used for the study along with twenty control phrases.

For example:

 I had a bunch of problems the last few days of the semester. My house was burgled, my bicycle was stolen, and my computer crashed so I had to hand in my assignment late. I could go on and on about my disasters, but to make a lo_____ st_____ sh_____, this was one of my worst semesters ever.

 Each idiom could be interpreted either literally or figuratively according to the context. The words used in the contexts were specifically chosen to be frequently used words in English so that the participants could easily infer their meaning. The number of words and syllables were

the same for the literal and figurative passages. This was done in order to account for any variability due to word length and frequency. The passages were given line by line on a computer screen, and after each passage the subjects were asked a comprehension question. The participants were thirty-nine college students: twenty were advanced nonnative speakers of English with various L1s and nineteen were native English speakers.

The results indicated that both native and nonnative speakers took significantly less time to read the formulaic sequences when they appeared in context regardless of whether they were used figuratively or literally (Conklin & Schmitt 2008:72). Interestingly enough, there were no processing differences between the idiomatic expressions when read literally or figuratively because according to the researchers, formulaic sequences are processed as chunks and not word for word since they are used figuratively more often, although the mind is quick to activate the literal meaning when necessary (Conklin & Schmitt 2008:84-5). Although the reading speed of the L2 learners was slower than the native speakers, both groups read the idiomatic phrases faster than the equivalent novel phrases.

Another factor that also played a role in the quicker recognition of the formulaic sequences is the syntactic-semantic transparency of the idioms, i.e., "the idiomatic renderings are often extensions of the literal meaning" (Conklin & Schmitt 2008:85). For example, "scrape the bottom of the barrel" is easy to associate with the literal digging at the bottom of the barrel for the last item of something, rendering it "low quality" (Conklin & Schmitt 2008:85). This assumption is in contrast with Cieślicka's (2006) findings. She also took into consideration the literalness of the idioms, but the results she obtained from her study did not show a significant difference in processing times in terms of the activation of the literal or figurative meanings as a function of idiom literality.

These findings suggest that the speed of recognition and the activation or the lack of the literal meaning of the formulaic sequences depend on the type of context surrounding the phrases, which prompt the reader to activate either the figurative or the literal meaning. "The contexts used in this study's passages give just this kind of prompt, and so it might be that literal interpretations can be processed as quickly as idiomatic interpretations simply because they are primed by the preceding context" (Conklin & Schmitt 2008:85).

Even though these studies have produced different results, either in favor or against the literal first hypothesis, they highlight the important role context plays in the interpretation of the formulaic sequences and emphasize the fact that idioms are not used in isolation but instead in discourse (Conklin & Schmitt 2008:79). According to other researchers, however, the literal meaning alone will seldom lead an L2 learner to the accurate figurative meaning of an idiom. "Unlike individual words, idioms are composed of specific words that have meaning other than their grammatical or logical ones. Hence, investigation of individual word meanings by the learner will not suffice" (Liontas 2003:291). Because of this, Boers et al. (2009:369) suggest that L2 learners will still be in need of explicit guidance toward the literal meaning of an idiomatic expression and how it contributes to the figurative one. The sharp contrast between Cieślicka's and Conklin and Schmitt's studies highlights the need for more research on the topic, especially given that the two studies employed very advanced L2 learners and used both literal and nonliteral idioms. The studies in this dissertation also take into account the level of literalness and its effect on comprehension and production by L2 learners. The results, however, are more in line with Conklin and Schmitt's findings because they suggest that L2 learners do not necessarily process idioms literally before activating the figurative meaning in the L2. And, although context is important, a key factor in idiom comprehension and production is familiarity with a particular

idiomatic phrase that allows the learner to bypass the linguistic analysis of the idiom regardless of the salience level of the literal meaning of individual words.

3.4. Attitude and Avoidance of Idioms in the L2

By and large, nonnative speakers acknowledge the importance of having a good command of idiomatic phrases in the L2 they are acquiring, as noted by Liontas (2002a). He was interested in investigating the attitude L2 learners have toward idioms and the extent to which they were willing to learn such phrases. Liontas distributed two questionnaires to 60 third-year L2 college learners of Spanish, French, and German. The first questionnaire collected demographic and background information, as well as information about language experience and exposure to idioms. The second one gathered information on how to teach and learn idioms by rating pedagogical and self-learning practices.

Almost all of the participants (93%) expressed their desire to learn idiomatic expressions in the L2. However, 75% of them reported that they had not been taught idioms in the classroom, although they overwhelmingly rated idiom knowledge as an important part of L2 acquisition. Nevertheless, taking into account that mastering idioms in the L2 is a very challenging part of lexical acquisition even for the most advanced students, it is generally assumed that the nonnative speakers, given the opportunity, will avoid using figurative language if they can paraphrase or substitute literal language (Irujo 1993). Although idiom avoidance is a very recent phenomenon, some researchers (Yorio 1989, Irujo 1993, Laufer 2000 among others) have already begun to explore whether or not learners do in fact avoid idioms.

Yorio (1989) analyzed the use of idiomatic expressions in the written production of twenty-five ESL college students, who had been residing in the United States for five to seven years, and fifteen native speakers of English. His findings showed that both groups were similar

in their usage of two-word verbs. The native speakers, however, used more idiomatic expressions (36%), whereas the L2 learners used only 4%. In addition to using few idiomatic expressions in their writings, the L2 subjects often used them incorrectly. It is important to note that the subjects in both groups had a score of 6 out of 12 on the Writing Assessment Test, which is used to measure global writing proficiency in college. Such a score is considered a failing one. The low writing proficiency might account for the very limited usage of idiomatic expressions by the L2 learners, suggesting a correlation between language proficiency and idiomatic usage.

In another experiment, Yorio (1989) compared idiomatic written production in two groups of ESL learners with L1 Spanish. The first group consisted of immigrant college students who had lived in the US for five or six years. The second group was made up of college students majoring in English at a university in Argentina. They had studied English for three to five years and had never been in an English-speaking community. Yorio obtained very interesting results from the study. He found out that the subjects in the second group produced more grammatically correct phrases and applied more idioms in comparison to the students from the first group, despite the fact that they had been studying English only in a formal setting. He attributed the higher usage of idiomatic expressions in the compositions to the higher level of proficiency in the L2. "The higher the level of linguistic proficiency, the higher the level of idiomaticity" (Yorio 1989:65).

To assess whether L2 learners avoid idioms in the L2, Irujo (1993) tested twelve fluent bilinguals with L1 Spanish and L2 English, who resided and worked in an English-speaking environment. The subjects were given a translation test containing forty-five idioms that varied in the degree of semantic-syntactic similarity between the two languages, i.e., identical, similar, and different. The idioms were taken from Irujo's 1986b study. Participants were asked to supply

the appropriate English idiom, although the subjects were allowed to choose between providing the idiomatic expression or its literal periphrasis. Irujo hypothesized that the subjects would not avoid using idioms in general, and that the idiomatic expressions they would more likely provide would be frequently used with semantically transparent idioms that are identical in both languages (e.g., 'to play with fire' *jugar con fuego*).

Analysis of the results showed that the bilinguals did not avoid idioms and were able to produce the correct idiomatic expressions 59% of the time. Also, when the idiomatic phrase was not provided, it was substituted with its literal paraphrase. Once it was established that the subjects had a good idiomatic knowledge in the L2, Irujo looked at the types of idioms that were produced. The identical idioms were the easiest to produce. She contributed their successful production to positive transfer from the L1. The participants relied heavily on their L1 to help them produce the idiomatic phrases in the L2 even when they attempted to produce the similar idioms which, however, showed the most interference because direct translation was no longer an adequate method aiding the successful interpretation of idioms. When the subjects produced the similar idioms incorrectly, they tended to rely on the literal translation of the Spanish idioms (Irujo 1993:207). The L2 learners successfully produced many of the different idioms as well. However, they did not always provide the anticipated idiom in the answer since more than one idiom can refer to the same idea or thing.

Irujo also tested the correlation of successful production of the idioms against their frequency and semantic transparence. The findings revealed that if an idiom is known to the L2 learner, he/she will not be dependent on the semantic transparency to work out its meaning. In addition, the data showed that there is no correlation between frequency of the idiomatic phrase and its successful production. "The best known idioms were those that had identical Spanish

equivalents, and the least known were totally different in English and Spanish" (Irujo 1993:207), indicating that the degree of similarity or the lack of it between the two languages may be the most important factor in learning idioms in the L2.

Laufer (2000) used an elicitation task in order to test the avoidance of idioms. She tested fifty-six L1 Hebrew college students majoring in L2 English language and literature. The L2 learners were in their first, second, and third year of studies. She classified the L1−L2 difference between idioms into four categories: type 1) exact translation from L1 into L2 (Hebrew: *lasim et ha-klafim al ha-shulxan,* English: lay the cards on the table); type 2) partial translation in L1 (Hebrew: *miss the train*, English: miss the boat); type 3) different idioms in both languages (Hebrew: *to work for someone*, English: take someone for a ride); and type 4) non-idiomatic expressions in the L1 (Hebrew: can only be expressed literally, English: it's not my cup of tea).

The participants were asked to translate the missing idiomatic expressions that were provided at the end of each sentence from the L1 (Hebrew) into L2 (English). Even though each of the 20 sentences had an alternate literal ending as well, in general, the subjects did not avoid using idioms. For example, given the prompt "The bilateral treaty talks have made no real progress because the parties are reluctant to _____. (*lasim et ha-klafim al ha-shulxan*)" the students could have chosen 'lay their cards on the table'" or the non-idiomatic equivalent "reveal their true intentions" (Laufer 2000:191). However, a more detailed inspection revealed that partially translatable idioms (type 2) and non-idioms in the L1 (type 4) were the most avoided types when the participants chose not to use figurative language. The results show that avoidance of idioms in the L2 is related to the degree of L1−L2 similarity, although the connection is not a straightforward one.

Stengers, Boers, Housen, and Eyckmans (2011) proposed the idea that use or avoidance of idioms as well as their accuracy may be influenced by the morpho-syntactic similarities between the native language and the target one. The researchers studied the oral production of idioms in the L2 by L2 learners of Spanish or English with L1 Dutch. They acknowledged that Spanish is more synthetic, i.e., inflectional, than English or Dutch and, thus, they expected the L2 learners to have a greater difficulty accurately producing the idiomatic expressions in Spanish than in English. Stengers et al. tested sixty college students majoring in Spanish or Dutch who participated in a retell task. The subjects read a text in their native language and shortly after that had to retell it in their L2, either Spanish or English. Native speakers in both languages judged the narratives and identified the idiomatic phrases produced in the L2. Only the idioms that corresponded fully to the L2 were included in the results. The graders scored the retelling tasks based on fluency, range of expressions, and accuracy.

After the assessment of the statistical analysis, the researchers concluded that the L2 learners of English produced more formulaic sequence types per recording as well as per token in comparison with the students of Spanish. Stengers et al. (2011:331-2) attributed the difference in successful production of idioms between the two L2 languages to the morpho-syntactic errors the L2 learners of Spanish made, as only the word strings that fully corresponded to the L2 targets were taken into account and scored. Furthermore, they proceeded to test whether the inflectional properties of Spanish may have affected idiomatic production. They found out that the inflectional errors negatively impacted accuracy levels in Spanish as an L2. The graders awarded lower proficiency scores to the subjects who made more inflectional errors, for example *una investigación llevado a cabo* 'a completed investigation.' The inflectional error occurred because the feminine noun *investigación* and the participle *llevado,* acting as an adjective, need

to agree in gender, *una investigación llevada a cabo*. The assessors made use of the morpho-semantic errors to distinguish between in-group differences of good and weak performances within the Spanish group.

Nevertheless, the L2 learners of Spanish received scores for accuracy similar to those awarded to the L2 speakers of English. Stengers attributed such similarity in the scores to sympathetic graders of Spanish who were aware of the typological differences between Spanish and Dutch and the problems they presented to the L2 students. "The data collected reveal positive correlations between the numbers of formulaic sequences used by students and their oral proficiency as perceived by blind judges. The correlations appear to be weaker in L2 Spanish, however, where the higher incidence of inflectional errors generally seem to dampen the positive impression which the appropriate use of formulaic sequences helps make" (Stengers et al. 2011:335). The fixed word order in English along with fewer verbal inflections facilitates the learning of formulaic language whereas the more flexible word order and richer inflectional grammar of Spanish may impede the successful production of formulaic language by L2 learners because Spanish and Dutch are typologically different languages.

To sum up, the abovementioned studies offer insightful information about L2 learners' attitudes toward figurative language in the L2 and demonstrate that nonnative speakers are aware of the importance of a solid knowledge and command of idioms in the L2. Unfortunately, Liontas' (2002a) findings reveal that idioms in the L2 are not taught frequently enough in the classroom, although Yorio's (1989) experiments have demonstrated that L2 learners benefit from formal instruction of idioms and that idiomatic proficiency is also correlated with higher linguistics proficiency in the L2. Irujo (1993) and Laufer's (2000) experiments demonstrated that in general L2 learners do not avoid idioms although idiom productivity is affected by the

degree of similarly between the native language and the target language. Because of this, the L2 learners showed the most interference when they had to produce the similar idioms. However, the most challenging idioms to produce were the different ones, especially when the idioms did not exist in the native language.

It is clear from the studies reviewed in this chapter that there is a link between the proficiency level of L2 learners and their ability to produce correctly idiomatic expressions, as well as their willingness to use such phrases in their written and spoken discourse regardless of whether they have acquired the metaphoric language formally in the classroom or through living in a community where the L2 is spoken. In addition, it merits noting that typological closeness between the native and the target language may influence the success and frequency of idiomatic production in the L2. Last but not least, although the findings from the previous studies are very insightful, none have examined spontaneous idiom production in conversation or writing. Such a study would shed more light on the L2 acquisition of idioms by L1 typologically different and similar languages.

Although studies on attitudes toward and avoidance of idioms in the L2 are not directly related to the two studies reported in this dissertation, they offer very insightful information about the L2 learner's attitude toward figurative language. These studies also demonstrate the most problematic areas of idiom production and avoidance in terms of similarity between the L1 and L2. However, syntactic and semantic similarity of idioms in the native and target languages is considered to be one of the key factors influencing the successful production of the missing constituents in the first study described in this dissertation.

3.5. Strategies Used to Interpret Unfamiliar Idioms in the L2

The level of familiarity with a particular idiom, or the lack of it, also influences the strategies used by native and nonnative speakers. When dealing with familiar idioms, both native and nonnative speakers apply the same strategy: they use contextual information and conceptual knowledge that may lead to direct memory retrieval (Liu 2009:73-4). Nevertheless, the L2 learner deals differently with unknown formulaic phrases because of his/her limitations with the L2 in terms of pragmatic, sociolinguistic, and semantic-syntactic knowledge. "A learner faced with an unknown expression in the foreign language can ignore it, guess it, or try to work out a likely sense […] learners, even at advanced levels, do not have the same tools for resolving the problem as a native speaker; they know fewer words, they have a smaller network of semantic or conceptual links" (Littlemore & Low 2006:23). Because of this, when L2 learners are faced with unfamiliar idioms, they use a heuristic approach, which according to Cooper (1999:254) means "both a procedure and a learning method," because the L2 learner approaches the particular idiom as a problem and tries to resolve it on a trial and error basis by using a variety of strategies such as guessing, using pragmatic knowledge, and even experimentation (Liu 2009:73).

The use of contextual information is one of the major strategies employed by L2 learners when processing idioms. In a pilot study, Cooper (1999) set out to determine the particular strategies L2 learners use when confronted with an unfamiliar idiom. Eighteen adult ESL learners from different backgrounds and various native languages, such as Russian, Japanese, Korean, Spanish, and Portuguese, participated in the study. A majority of the subjects had studied English in their native country and were using it in the workplace. The participants were asked to interpret the meaning of twenty American-English idioms presented within a short, one- to two-sentence context. The frequently used idioms were chosen from different levels of

discourse, such as standard idiomatic expressions (e.g., *to see eye to eye*), colloquial expressions (*to have a green thumb*), and slang (*What's cooking*?). The participants were asked to voice their thoughts via a think-aloud protocol method, that is, they verbalized their immediate thought processes on the spot without time for reflection (Cooper 1999:283).

The responses were analyzed in two phases. In the first one, the answers were scored for accuracy as incorrect, partially correct, or correct. Each answer received a different point value. In the second phase, the answers were divided into T-Units and analyzed. According to Hunt (1970:4), "a T-Unit consists of a main clause plus a subordinate clause or nonclausal structure that is attached to or embedded in it." According to the analysis, the idiom comprehension strategies used by the L2 learners fell into two categories: preparatory and guessing. The preparatory strategies allowed the participants to clarify the knowledge about the idiom and to gain more time before guessing the meaning and gather additional information in order to make a better or more educated guess (Cooper 1999:243). From the guessing stage Cooper identified eight major strategies the students employed while analyzing the idioms: guessing from context, discussing and analyzing the idiom, using the literal meaning, requesting information, repeating or paraphrasing the idiom, using background knowledge, referring to an L1 idiom, and using other strategies. Guessing from context was the most frequent strategy (28%), closely followed by discussing and analyzing the idiom (24%), then using the literal meaning (19%). These three strategies were used most often, accounting for a total of 71% of usage. Nevertheless, as Cooper points out, the strategies employed vary from person to person and even within a person, because the comprehension process is dynamic and not a set procedure (1999:255).

Bulut and Celik-Yazici (2004) replicated Cooper's (1999) study with eighteen Turkish teachers of English as a L2. All of the participants were advanced learners but only three had

visited/lived in an English-speaking country. The researchers chose twenty frequently used idioms from different types of discourse: formal, colloquial, and slang. The idiomatic phrases were taken from Cooper's list as well as from various websites. The selected idioms were given within a one-sentence context, for example, "The researcher had to roll up his sleeves to get the proposal in on time" (Bulut and Celik-Yazici 2004). After the data were collected and analyzed, the researchers grouped the idiomatic comprehension strategies into two groups: preparatory and guessing (following Cooper's model). They, too, obtained similar results: the participants applied the heuristic method when they encountered an unknown idiom, with guessing from context ranked as the most used strategy, which led by the ESL speakers to successful interpretation of the idioms 57% of the time. However, as Liu (2008:66) points out, although contextual information is an important and useful tool in idiom comprehension, it does not always lead to correct understanding of idioms.

In addition, Bulut and Celik-Yazici (2004) and Cooper (1999) reported that L2 learners use other strategies when the contextual information fails to help them work out the meaning of a particular phrase. They make use of the pragmatic knowledge they have in order to decode the figurative meaning of idioms. For example, in order to figure out the meaning of "to stir up a hornet's nest," Bulut and Celik-Yazici's (2004) participants simultaneously used the literal meaning of the phrase and their world knowledge about bird or bee nests and the negative consequence of disturbing this type of nest (Liu 2008:69):

> To stir up a hornet's nest…I don't know the meaning of hornet, but I think it is
>   a kind of bird or maybe bee. When I see this idiom, I think of a person who is

stirring up a nest, he is causing trouble. Uh…Nest symbolizes peace and this

person destroys the peace by stirring up, so I think it means making others angry.

(Bulut and Celik-Yazici 2004:110)

Bulut and Celik-Yazici (2004:111) also found out that the type of idiom -formal, colloquial or slang-did not influence the comprehension process. The non-native speakers took longer to analyze the idiom regardless of their level of proficiency. Also the L2 learners often failed to make use of positive transfer from their L1 onto the L2 when they encountered identical or similar idioms (to roll up one's sleeves; *kollari sivamak*) because they treated them as "false friends," relying on the context rather than the similarity in concepts between Turkish and English (2004:113).

Rohani, Ketabi, and Tavakoli (2012), too, were interested in identifying the strategies L2 learners use to make sense of an unknown idiom. They conducted their study with seventy Iranian college students who majored in English literature or translation. Sixty of the participants were given a list with idioms and asked to judge their familiarity on a scale of one to four. Only the idioms that were rated as three or four, i.e., the unknown ones, were used for the study. The other ten participants were split into two groups. The first group was shown animated cartoons that contained the unknown idioms. The second group read only the script of the cartoon. Both groups were exposed only once to the materials. After that, they were asked to verbalize their thought process via think-aloud protocol. From the information gathered the researchers were able to identify several major strategies used by both groups. The researchers used the information to prepare a questionnaire that was later administered to a larger group of students also split into two groups: one watched the cartoon, and the other read the script. After the think-

aloud protocol, the participants were asked to identify the strategies they used in guessing the meaning of the unknown idioms. Both groups used similar strategies, although they differed in the frequency in which they were used. The group that read the text employed "focusing on a keyword" within the idiom as the most frequent technique, whereas the group that saw the cartoon favored "focusing on the picture" as a way of figuring out the meaning of the unknown idioms. The second most common strategy used by the text group was "reference to context," while the cartoon group "focused on key words." It is interesting to note that the participants used "translation" as the least common strategy. "Paraphrasing and elaborating" and "reference to the literal meaning" also ranked low on the list of strategies (Rohani, Ketabi, & Tavakoli 2012). Unfortunately, one of the shortcomings of the study is that the researchers did not report on the success rate for each of strategies used by the L2 learners.

The results obtained by Rohani et al. (2012) differ from Cooper's (1999) study in terms of identifying the most frequently employed strategy, although both studies have identified similar types of major strategies used by the nonnative speakers. In Cooper's study the L2 learners of English resorted to use of contextual information outside of the idiomatic phrase as the most frequent strategy, whereas the Iranian learners of English focused on a key word within the idiom or relied on the animated picture as a way of figuring out the meaning of the unknown idiomatic phrase. While discussing and analyzing the idiom and/or using the literal meaning were preferred techniques by the L2 learners in Cooper's study, they ranked low on the strategy list in the current study. Such findings allow us to hypothesize about the universality of the strategies used by the L2 learners. It is important to point out, however, that although the participants have different L1s in the abovementioned studies, all of them are L2 learners of English. To fully assess the universality of strategies used by learners for processing and

interpreting idiom sin their L2 more research needs to be conducted with L2 learners of languages other than English.

While examining the effect context, or lack of it, exerts on comprehension and production of idioms in the L2, Liontas (2001) also studied the reading strategies L2 learners use while working out the meaning of an unknown idiom. The intermediate level college students of Greek with L1 English used five main strategies to comprehend idioms presented in context. The most frequently employed technique was computing the literal meaning of the expression first (24%), followed by translation from L2 into L1 and vice versa (17%). They also made use of the semantic and syntactic arrangement of the lexical unit (11%). Another strategy employed by the subjects was the use of background or world knowledge (9%). The final main strategy used by the L2 learners was the use of context surrounding the idiom as a way of identifying its meaning (8%).

In another study, Liontas (2002) used native speakers of English who, as third-year college students, were L2 learners of one of three different languages: Spanish, French, and German, to research the strategies the L2 learners used when making sense of an unknown idiom. In this study, however, the author first presented the idioms without context and later on within context in order to compare the strategies that were used. He identified four major strategies the 53 L2 learners from all three languages employed when reading idioms without context. Those strategies accounted for the 75% of all strategies used. They were translation (38%), guessing (17%), "sounds/seems/looks like" (17%), and "I have no idea" (11%). When context was added, however, the order of the employed strategies changed. When the idioms were presented in context, the L2 learners utilized it as the primary strategy (34%), as context diminishes the need to use guessing and translation as strategies. Nonetheless, Liontas also

found that the use of context did not necessarily guarantee the successful interpretation of the idiomatic expression (Liontas 2002:180-1). The next most frequently used strategy was connecting to other idioms (16%), followed by translation (8%). Finding the exact meaning in English was the fourth strategy (7%), followed by guessing (4%) as the final major strategy.

It is interesting to note that the more advanced L2 learners made greater use of context as a key to interpret the (unknown) idioms. However, this did not seem to be the case with the less advanced learners, such as the L2 learners of Greek, who used context as a strategy only 8% of the time. This difference in the use of techniques may have been due to the fact that advanced learners have a richer vocabulary, whereas the less advanced learners may see context as an extra obstacle because their vocabulary is not as advanced.

Liontas compared the strategies used by L2 learners from the three languages and found out that all of them consistently employed the same strategies when they worked with idioms without context, "suggesting that there is no effect of the target language on the strategies used by native speakers of English. This is equivalent to suggesting that the comprehension and interpretation of context-free VP (vivid phrasal) idioms is both highly systematic and universal" (Liontas 2002:179). Liontas' findings allow us to speculate that the strategies used by L2 learners while working out the meaning of idioms that are unknown to them may be universal. However to confirm this, further studies with L2 learners from a variety of languages with different levels of acquisition need to be carried out. The present study attempts to shed light on the strategies used by near-native speakers of Spanish as an L2.

3.6. Cultural Knowledge & Conceptual Metaphor Theory

Another factor that affects idiom comprehension and production in the L2 is familiarity with cultural knowledge. In a study done by Abdullah and Jackson (1998), 120 L1 Syrian Arabic

college students studying English as an L2 completed multiple-choice and translation tests of eighty idioms. The subjects used their L1 in both comprehension and production tests. The participants scored higher on the identical idioms but experienced negative transfer with idioms that were identical in form but different in meaning (e.g., "*to bite the dust*"). In English this idiom denotes "to die," but in Syrian Arabic it stands for "to be poor or miserable." Many of the students, however, did not complete the translation task when they were asked to translate the idioms from their native language to English. The participants did not finish the task because they feared that the Syrian idioms did not have equivalents in English. What prompted the subjects to avoid translating the idioms was the assumption that such phrases are always culture- or language-specific and do not exist outside of the particular language and/or culture. Abdullah and Jackson established that the similarity between languages is not a key factor in cross-linguistic influence when producing identical idioms from L1 onto L2. Rather, familiarity with cultural knowledge was seen as essential for successful production of idioms.

Other researchers have placed a greater importance on the connection between the cultural knowledge and culture-bound domains related to metaphoric language when it comes to comprehending and producing figurative language in the L2. They insist that native speakers rely on concepts evoked in their minds when they use idioms (Boers et al. 2001). Therefore, a nonnative speaker will be more successful in understanding a particular idiom or metaphor if s/he is familiar with the salient cultural concepts. These ideas form the foundation for Lakoff and Johnson's Conceptual Metaphor Theory (1980), which states that metaphors are not part of language but are a matter of thought and reason (Lakoff 1993:202). Metaphors reflect schemas, which as cognitive models of bodily activities prior to producing language, represent how we perceive, act, react, and consider our environment. Lakoff and Johnson categorize language by

symbolic models, which operate through propositional, image schematic, metaphoric, and metonymic models. Such models allow for meanings to arise through embodiment in schemas (Holcombe 2007 n.p.). A conceptual metaphor consists of two conceptual domains that arise from any coherent organization of experience. The concept from which one draws metaphorical expression to understand another conceptual domain is called source domain, while the conceptual domain is called target domain (Kövecses 2005:5). For example, ideas are plants/food: *food for thought*. Conceptual metaphors typically employ a more abstract concept as target—*thought*—and a more concrete of physical concept as their source—*food*. However, our experiences (in the world) serve as a natural and logical foundation for the comprehension of more abstract domains (Kövecses, Benczes, & Csabi 2002:6). The Conceptual Metaphor Theory even expands its view to examining universal metaphors that can be found in different languages, in that concepts are based on the way the human brain and body function. Thus, most of the metaphors people use must be fairly similar, that is universal, at least on the conceptual level (Kövecses 2005:34). For example, Kövecses et al. (2002:166) used the conceptual schema of *the angry person is a pressurized container* to find its likeness among other languages. He found that many typologically different languages share the conceptual metonymies that include the following: body heat stands for *anger*, internal pressure stands for *anger*, redness in the face and neck stands for *anger*. In Hungarian, one of the metaphors for anger is *anger was boiling inside him*; in Japanese the *intestines are boiling* (using the stomach/bowels as a principal container).

In her research, Deignan (2003) explored the role that culture plays in determining the content and form of metaphors. She adopted the notion expressed by Lakoff (1993) regarding cross-cultural metaphors but also states that "unlike general physical experiences, specific

experimental domains are more likely to be culture dependent and vary from place to place"
(2003:256). According to Deignan, since languages exhibit different patterns of figurative
language use, it is likely that metaphors that are frequent in one language will be absent in
another, or, if the same metaphor is found in both languages, it will be more frequent in one of
the two. Also, some shared metaphors drawn on the same source domain will differ in details
across languages. For example, *heat* in English is associated primarily with *hot liquid* but in
Chinese with *hot gas* (Deignan 2003:256). There is also the possibility that metaphors will differ
in entailments. For example, in English a *parent company* is the one that controls others. In Farsi,
on the other hand, *the parent company* is the one that supplies raw materials to another company
(Deignan 2003:257). Along with all these differences, Deignan also notes that different cultures
may hold different folk beliefs about attributes of the source domain, which makes it difficult to
acquire and use language-specific metaphors correctly. If the members hold a particular belief
about a connection between a part of the body and an emotion, we can expect to find metaphors
reflecting those connections. The same goes for a particular animal and a quality it represents.
The author, however, points out that there is evidence for and against these claims. She
compared English with Spanish to show the conceptual differences. As an example, she used the
metaphor of *the dog*, which denotes loyalty or positive qualities. What Deignan found in her
corpus, however, is that *dog* is also used to denote a despised entity in English, for example, "her
career had been dogged by drink and anorexia" (Deignan 2003:258).

Deignan goes on to discuss the importance of users' shared awareness of prototypical
events and behavior in their culture in order to use and comprehend metaphors. The examples
she found are all phrasal and refer to a prototypical situation or sequence of events (Deignan
2003:260). She compares examples from English and Spanish, each of which has metaphorical

clusters not used in the other language that are very closely related to the particular culture. For example, the *horse–racing* domain is productive in English ('He is too young to be in the running for the job of Prime Minister'), whereas in Spanish, domains referring to bull-fighting (*Ver los torros desde la barrea*; lit., 'to watch the bulls from the fence') and religion (*No ser santo de su devoción*; lit., 'not to be one's saint of devotion;' fig., 'not to be one's cup of tea') are more common. Such differences in cultures make acquisition of metaphors a very challenging task because the L2 learner must first overcome the challenges of acquiring the non-metaphorical language in terms of grammar and lexis and, after that, take up the greater challenge of understanding pragmatics and learn when it is appropriate to use such language in the discourse context, as well decide whether any transfer from the native language is possible as long as it carries the same meaning.

Although many metaphors (and idioms) seem to be recognized universally by most languages, there is still a bigger group of metaphors that do not have an equivalent in another language. Such lack of universality causes a great deal of problems for L2 learners who are trying to use the target language appropriately. Boers and Demechleer (2001) set out to test salience in cross-cultural concepts that are frequent in the L2 but not in the L1 and the extent to which L2 learners will be successful at understanding their meaning. In this case, they compared two linguistically related cultures, English and French. For their study they had chosen specifically idioms that are imageable, i.e., "idioms that have associated conventional images" (Lakoff 1987:447), because such idioms, especially the ones with a higher degree of imageability, may make the idiomatic phrase more semantically transparent and easier to guess, prompting the learners to look for clues within the idiomatic phrase rather than relying on contextual clues. They established that English has a variety of metaphoric expressions that

exploit the imagery of *hats* and *ships*, whereas French has *food* as a more productive source of metaphors. Both languages have equally salient imagery for *sleeves*.

Twenty-four idioms containing the imagery of *hats, ships, sleeves*, and *food* were selected from various English dictionaries. The idioms were rated by five native speakers of English on the degree of difficulty of guessability without context. The idioms were specifically chosen not to have a one-to-one equivalent between English and French. The participants' proficiency level enabled them to understand the meaning of the individual words within the phrase. After the idioms were evaluated, only those that received a rating of 2 or 3 out of 5 were chosen. The remainder of the idioms were eliminated because they were either too transparent (rated as 1), such as "to miss the boat" or too opaque (rated as 5), such as 'to eat one's heart out.' A total of twelve idioms were selected for the study.

Seventy-eight college students took part in the study. They were all native speakers of French with an intermediate level of proficiency of English as an L2. The researchers found that the participants were more likely to correctly identify the meaning of idioms containing source domains that were salient in their native language. Because of this, they were more successful in guessing the meaning of idioms containing imagery for *food* or *sleeves*. Even without any contextual clues, they were able to give a partially correct answer only about 35% of the time.

Nevertheless, a concept that is salient in both languages does not guarantee that the L2 learners will be successful at guessing the meaning of an unknown imageable idiom. On the other hand, the results from the study showed a negative conceptual transfer from their L1 French onto the L2 English. Given that the idioms were judged to be unknown to the participants, they still perceived two of them as similar: 'to hang up one's hat' and 'to wear one's heart on one's sleeve.' These idioms were mistakenly identified as *Tirer son chapeau à*

quelqu'un meaning 'congratulating somebody' and *Avoir le coeur sue la main*, referring to 'being generous' (Boers et al. 2001:258). Negative transfer was also possible because the participants assumed that the source domain existed in both languages since they were linguistically close.

In a subsequent study, Boers, Demechleer, and Eyckmans (2004) continued to survey the relation between the successful acquisition of idioms and the culturally salient source domains by linking the origin of the idiom, i.e., the context in which it was originally used in a literal sense with its figurative meaning (Boers et al. 2004:378). However, idioms from less familiar source domains in the L2 were expected to be perceived as more opaque and more difficult to remember and produce by the L2 learners. Two hundred college students of English with L1 Flemish Dutch took part in the study. They were randomly split into two groups, one of which served as a control group. Using the program *Idiomteacher* to improve their idiomatic knowledge in the L2, the participants completed three exercises. The first one was a multiple-choice task in which they had to identify the idioms' literal origins. The subjects were allowed multiple attempts at guessing the literal origin of the phrase until they got the correct answer, which was followed by a short explanation of the literal meaning of the idiom linking it with its source domain, which, in turn, allowed the L2 learners to simultaneously process the information about the source domain and create a mental image linking it to the idiom.

For example,

What domain of experience do you think the following idiom comes from?

"to show someone the ropes"

a) Prison/torture

b) Boats/sailing

c) Games/sports

Feedback: A short explanation about the origins or literal use of the expression appeared on the screen: To "show someone the ropes," experienced sailors need to teach novice sailors which ropes they should handle, etc.

For the second task, the students had to identify the correct figurative meaning of the idiom in a multiple-choice exercise:

What is the figurative meaning of the following idiom? "to show someone the ropes"

a) to disclose the truth to someone

b) to give someone a severe penalty

c) to teach someone how to do a task

Both tasks were designed to motivate the learner's perceptive knowledge of the origin and the figurative meaning of the idiom. The final task required the participants to (re)produce the key word from the idiomatic expressions within the context. When the volunteers gave a wrong answer, the key word was given to them. For example,

When I started working here as a novice, nobody bothered to teach me how things were done around here. I had to find out all by myself how to do my new work properly. You could say that nobody showed me the _____.

The control group only completed the last two exercises, i.e., identify the correct figurative meaning of the idiom in a multiple-choice exercise and reproduce the key word from the idiomatic expressions within context.

Although both groups had a fairly low success rate on the exercises, the scores showed that the test group was more successful at recognizing and producing idioms. They scored 39% versus 28% for the control group. The results revealed that the students who completed the first exercise benefited from learning to associate the source domain with the figurative meaning of the idiomatic expression. Even though the study showed that mapping out the literal origin and presenting it in terms of salient concepts improves subjects' overall recognition and (re)production of the idioms, the more opaque phrases were not susceptible to the technique of dual coding (Boers et al. 2004:384) and were still problematic for the L2 learners.

Many researchers consider metaphor to be central to figurative language and insist that there are preexisting structures that guide idiom comprehension due to the similar experiences people from different cultures share. Bortfeld (2003) studied how the degree of transparency affected the speed of domain mapping of idioms in the L1 and L2. She conducted a series of experiments testing how native speakers of English are able to determine the meanings of different idioms in English, Latvian, and Chinese based on their underlying conceptual metaphors and the degree of opacity (as proposed by Gibbs & Nayak 1989). In other words, in transparent or normally analyzable idioms, figurative and literal meanings have a transparent relationship; semi-transparent or abnormally analyzable idioms have a metaphorical relationship; and the opaque or unanalyzable idioms have an opaque relationship between the figurative and literal meaning (Gibbs & Nayak 1989, cited in Bortfeld 2003:220). In the first experiment Bortfeld tested the participants' ability to properly categorize idioms into the correct metaphoric

domain in their native language (English). The 34 undergraduate students classified seventy-five

idioms that belonged to one of the five conceptual categories: *revelation, insanity, control,*

anger, or secretiveness. The idioms also differed in the degree of compositionality, i.e., the

degree to which the literal meaning of the constituents aided the comprehension of the figurative

one; according to it they were normally analyzable, abnormally analyzable, and unanalyzable.

The normally analyzable or decomposable idioms "have a relatively transparent relationship

between the surface structure and their figurative meanings," for example, 'to lose your temper.'

The abnormally analyzable or abnormally decomposable phrases "require more analysis since

the metaphorical link between the literal meanings and figurative concepts needs to be mapped

out in order for the phrases to make sense," for example, 'to flip your lid.' The third type of

idioms is unanalyzable or nondecomposable, meaning that the "figurative meanings of those

phrases are based on some historic occurrence or culturally instantiated linguistic usage that has

long been forgotten, while the phrases themselves have become fixed in the language as single

units," for example, 'to kick the bucket' (Bortfeld 2003:219). The three types of idioms were

equally distributed among the domains used in the study. The idioms were presented one at a

time on a computer screen. The participants pressed a key labeled for each concept to categorize

the idioms. The response times were recorded from the onset of the phrase on the screen until the

subjects pressed one of the buttons.

The results indicated that idiom transparency played a major role in the participants'

ability to correctly categorize the idioms within the appropriate domains. Bortfeld found that the

speed of recognition and correct placement of each phrase decreased as its opaqueness increased,

prompting the subjects to take a longer time to link each idiom with the correct conceptual

category. They were most successful grouping the normally analyzable idioms (89%), whereas

the unanalyzable idioms took the longest to organize and participants produced fewer correct answers (68%). Interestingly enough, participants categorized the abnormally analyzable idioms the fastest, followed by the normally analyzable ones. Bortfeld (2003:224) explained that abnormally analyzable idioms are easier to process because speakers are highly familiar with them, and as a result, have already done the conceptual mapping allowing them to process such idioms as single units in comparison with the transparent idioms, which are processed word by word.

In the second experiment, a different group of 34 native English speakers were asked to correctly classify unknown idioms translated literally from Latvian. The subjects had to correctly identify the idioms' conceptual category in the same way as in the first experiment. The 75 idioms were also divided according to their transparency. Bortfeld noticed a similar pattern in error rates in Latvian and English, although the subjects were far less successful in correctly categorizing the idioms. The normally analyzable idioms were the easiest to group correctly, followed by abnormally analyzable and lastly, the nondecomposable ones. Bortfeld attributed the low success rate in categorizing the nondecomposable idioms to "having extreme historical/cultural bases that seem opaque to individuals not privy to the language in which these idioms are used" (Bortfeld 2003:223).

To avoid any influence from historical similarities existing between English and Latvian that might have helped shape some idioms, the researcher used a non-Indo-European language in the third experiment. In this experiment, modeling the previous two, another group of 34 English speakers had to categorize 75 literally translated Mandarin idioms according to their source domains. The idioms were also divided according to their level of semantic transparency. However, even with idioms from a non-Indo-European language, the results were similar to the

ones in Latvian. The subjects were most successful grouping the transparent and semi-transparent idioms and had more problems identifying the correct conceptual domain for the opaque idioms.

Bortfeld (2003:226) concluded that although many idioms are unique to a particular language, their underlying figurative meaning is identifiable (even by non-native speakers). Nevertheless, opaque idioms are especially problematic because even native speakers are slow to make sense of culturally and/or historically based figurative phrases. Furthermore, the author speculated that unanalyzable idioms may never get mapped onto the conceptual structure in the L1, making them slower to process even in the native language. The lack of conceptual mapping may be extended to opaque idioms in the L2 as well, making them difficult to process and analyze. According to Bortfeld, the best way to deal with such idioms is to memorize them and create a new structure for the phrase to make sense (2003:226).

The abovementioned studies show that cultural knowledge plays an important role in L2 idiom acquisition, especially when it comes to working with opaque, culture-specific idiomatic phrases. And although people from different cultures share similar experiences, they do not always use the same domains to express them. Even if a concept is salient in both languages, it does not necessarily mean that an L2 learner will be able to correctly identify the idiom. Nevertheless, some idioms are easier to identify due to similarities in the underlying conceptual metaphor, allowing the L2 learner to successfully interpret the meaning of an idiom that is unknown to them.

The Conceptual Metaphor Theory, though popular, is often criticized because people do not always evoke concepts in order to understand metaphors, and not all metaphors fit the proposed schemas. Another problem with the Conceptual Metaphor Theory is that it tends to

overgeneralize the conceptual domains so that all conceptual metaphors can fit under a specific domain and explain the relationship between the source and target domains. Nevertheless, given that salience of concepts can influence L2 learners' ability to correctly identify the meaning of a particular idiom; it was of interest to us to observe whether L2 learners would make use of conceptual metaphors and image schemas when working with unfamiliar idioms in the second experiment in this dissertation. We were also interested in observing the success rate and frequency with which the conceptual metaphor and visualization were employed as strategies.

3.7. Acquisition and Teaching of L2 Idioms

3.7.1. Etymological Elaboration

The idea that the literal representation of idioms may aid the comprehension of the figurative meaning, long-term retention, and reproduction of idioms in the L2 has been adopted by a number of researchers. Guided by the positive results obtained from previous studies on interpreting figurative content of polysemous words on the basis of their literal meanings (Csabi 2004; Verspoor & Lowie 2003, among others, cited in Boers et al. 2007:44), Boers, Eyckmans, and Stengers (2007) set out to study how etymological elaboration of idioms in the L2 would affect L2 learners' comprehension of such phrases. They argued that "the meaning of many idioms is 'motivated' by their original, literal image" (Boers et al. 2007:43). In other words, the L2 learners were given an explanation of the original literal usage of a particular idiom. For example, 'hook, line, and sinker' is associated with the scene of a greedy fish gulping down much more than just the bait on the hook. The researchers carried out two experiments with second- and third-year college L2 learners who majored in English; all were native speakers of Dutch.

In the first experiment, Boers et al. (2007) used 165 idioms that were divided among three series of 25 idioms presented to the second-year students, and another three sets of 30 idioms that were given to the third-year participants. The subjects were divided into experimental and control groups. There were three experimental groups from the second-year students divided into three sets (A, B, and C) and three sets for the control groups. The third year students were divided the same way, yielding a total of 12 groups of participants. They were tested separately on different days depending on their availability. The experimental groups completed the three tasks in the following order: 1) "identify the source" (domain, e.g., 'war') in a multiple-choice task; 2) "identify the meaning" in a multiple-choice task; 3) respond to a gap-fill task in which the subjects were asked to provide the missing key word in an idiom presented within a short context.

Below are examples of the three tasks:

Task one: Identify the source

1) What domain of expertise do you think the following idiom comes from? "jump the gun"

a) Jurisdiction/punishment

b) Games/sports

c) War/aggression

Feedback: In athletics a contender who "jumps the gun" sets off before the starting pistol has been fired.

Task two: Identify the meaning

1) What is the figurative meaning of "jump the gun"?

a) Defend someone at your own peril

b) Do something before the appropriate time

c) Be startled by an unexpected event

Task three: Gap fill

1) Although we had agreed not to tell anyone about my pregnancy until we were absolutely certain about it, my husband jumped the _____ and told his parents straight away.

Whenever the students gave a wrong answer, they were provided with feedback on the computer screen. The control group also completed the three exercises, but task one and two were in reverse order because the researchers tested whether the knowledge of the origins of expressions gave the experimental groups advantage over the control groups. The collected data demonstrated that the experimental groups in both proficiency levels performed better on the "identify the meaning" task because they first had to complete the "identify the source" task and make connections between the literal meaning in terms of an idiom's origin and its figurative interpretation, allowing students to improve their comprehension of metaphoric knowledge in the L2.

Twenty-two third-year students took part in the second experiment. They were given 16 idioms not previously used in the study and were asked to complete three tasks providing the figurative meaning of the idioms: in the first exercise. the idioms were presented in isolation (e.g., 'red tape'); in the second the idioms were given in context (e.g., 'Two lawyers have written a book in a bid to help people cut through the red tape when dealing with immigration and nationality laws.'); and in the final task etymological information was added along with context

(e.g., 'Official documents used to be sealed by means of red stamp and red ribbons.'). Again, comprehension improved once etymology was added to context. "In 29.5% of the cases where a student failed to understand an idiom despite the contextual clues, the etymological information provided the key to solve the comprehension problem" (Boers et al. 2007:52).

After establishing a positive correlation between etymological elaboration and idiom comprehension in the L2, Boers, Lindstromberg, Littlemore, Stengers, and Eyckmans 2008 undertook the task of examining the degree to which image representation of the literal meaning of an idiom helped the production of the figurative language by L2 learners. Boers et al. (2008) established that students who were taught the meaning of idioms in the L2 via pictorial images were able to retain the conceptual content of the idiomatic phrase and use it successfully during a multiple-choice task. However, when presented with gap-filling exercises, in which the subjects needed to (re)produce the idiomatic phrase, the participants who were taught via pictorial images were less successful than the group that learned the idioms without visual/pictorial aid. The researchers speculated that the images distracted the participants, leaving them with less time to contemplate the lexical properties of the idiom.

To further investigate whether pictorial elucidation has a distracting effect and hinders successful (re)production of idioms in the L2, Boers et al. (2009) conducted an additional study. There were thirty-eight participants, all college students in their first and second year of studying English as a L2 with L1 Dutch, who performed three tasks: (1) meaning multiple-choice (give the figurative meaning of, e.g., 'jump the gun'), (2) origin multiple-choice (give the domain the idiom belongs to, e.g., 'games and sports'), and (3) gap fill (provide the missing word, e.g., 'jump the gun'). A total of a hundred idioms were used in the study. The students were paired

up; in each pair, one of the participants was given exercises incorporating pictorial images on the literal meanings of the idioms, while the other participant received only contextual information.

Adopting the dual coding theory (proposed by Paivio 1986), which states that "the association of verbal information with mental image is advantageous because it relates an additional pathway for recollecting the verbal information" (cited in Boers et al. 2009:369), the researchers anticipated that pictorial representation of the literal meaning of an idiom would be beneficial to its reproduction by the L2 learner. Nevertheless, the results showed a different outcome. Pictorial representation of the origins of idioms was helpful in retention of meaning, but not in (re)production of idioms. Those participants who were shown images related to the literal meaning of the idioms were worse at reproducing the idioms than the ones who received only verbal explanations and were "deprived" of pictures. Such results led the researchers to conclude that the visual images indeed distracted the participants from the precise verbal input because they may have focused on the wrong elements in the picture. For example, instead of "rein" in the expression "keep a tight rein on someone" they would type "fist" because the idiom was visually represented as a fist tightly holding reins (Boers et al. 2009:375-6). When the visual stimuli competed with the verbal ones, the latter took over, accounting for the lower success rate in idiom (re)production. Nevertheless, Boers et al. acknowledge that pictorial images can be used to facilitate production of idiomatic language but only when the L2 learner is already well familiar with the individual words within the phrase, which in turn avoids overstimulation from both context and visual images.

To sum up, exposing L2 learners to the historical literal origins of idioms improved the nonnative speakers' ability comprehend and produce correctly the figurative fixed phrases. In the studies conducted by Boers et al. (2003, 2007. 2009), the test groups outperformed the control

groups because they were given the opportunity to learn about the etymology of different English idioms. However, L2 learners are still in need of explicit guidance about the meaning of certain idioms, especially those having different underlying conceptual metaphors in the L1 and L2, because the L2 learners may focus on the wrong stimuli and misinterpret the idioms.

The studies reviewed in this section demonstrate that idiom comprehension and retention can be improved through raising the L2 learner's awareness of the conceptual metaphors that underline many linguistic expressions (Zyzik 2011:417). In addition, it needs to be noted that although the literal representation of the idioms can be helpful, it can also hinder the learning process if L2 students are given too many over-stimulating images that will distract them and prevent them from producing the idioms correctly.

3.7.2. Teaching of L2 Idioms in the Classroom

The aforementioned studies offer very insightful information on how L2 learners comprehend, process, and produce idioms; however, they do not explicitly deal with how they are taught in the classroom. The focus in this section is on studies that have gathered empirical data on how idioms are taught in the classroom to L2 learners. Researchers are still trying to figure out the best way to categorize idioms in a way that is most beneficial to the L2 learner. Because of this, Boers et al. (2004, 2007) advocate etymological elaboration as a way of teaching idioms and fostering long-term recollection.

Building on Boers' et al. studies, Guo (2008) studied how etymological elaboration and rote memorization influence idiom acquisition. Since many idioms appear to be motivated by conceptual metaphors, the researcher hypothesized that L2 learners would benefit more from etymological elaboration. Guo tested seventy Chinese students who were L2 learners of English. They were split into two equal groups. The experimental group was taught idioms via

etymological elaboration; the control group was taught idioms via rote memorization. The subjects were instructed for twelve class sessions in a four-week period. The subjects were given a pretest and two post-tests. They consisted of a gap-fill section and a multiple-choice test. Both exercises were given in context.

After the pretest, the subjects were given 50 idioms to study. The experimental group was taught by the researcher, who instructed participants on the literal origin of the idioms. The control group was instructed to memorize the idioms on their own. After the four-week instruction period ended, the two groups were given the first post-test to assess how well they had acquired the idioms. A second post-test was administered approximately four weeks later to assess long-term recollection.

The results from the statistical analysis revealed that the experimental group outperformed the control group in both post-tests, demonstrating that etymological elaboration is far more beneficial to L2 learners, allowing them to correctly identify the idioms and commit them to long-term memory. The researcher attributed the superior performance of the experimental group to the Dual Coding Theory (as proposed by Paivio), that is, people learn by connecting verbal information and mental images, providing an extra pathway for recall when they encounter the idioms again. As noted earlier, Boers et al. (2004) also found similar results. Guo also acknowledged that the idioms used in the study were "etymologically transparent," allowing for the subjects to create an easier and more straightforward relationship between the literal and figurative meanings of the words. Nevertheless, Boers et al. (2004) explain that etymological transparency is ultimately a subjective experience "occupying a position in a continuum of extremely transparent to extremely opaque" (cited in Guo 2008:140).

Even though the Conceptual Metaphor Theory has been criticized as being too general and unable to account for opaque, culture-specific idioms, some researchers have shown that L2 learners may benefit from learning about the underlying conceptual metaphors and how they connect to the idioms. Samani and Hashemian's (2012) study focuses on examining whether teaching idioms in the L2 via conceptual metaphors would be more beneficial to the L2 learner in comparison to the traditional method. These researchers hypothesized that developing metaphorical awareness would aid idiom learning and long-term retention. The seventy participants were divided into two groups: an experimental group of forty and a control group of thirty. All of the students took a pretest to assess their metaphoric knowledge in English as a L2. The subjects from the experimental group were taught idioms via conceptual metaphors. They were taught how idioms can be generated from conceptual metaphors; for example, the conceptual metaphor *Argument is war* has generated common idiomatic expressions such as "to gain ground" and "to keep one's head down" (Samani & Hashemian's 2012). The participants were encouraged to look up the literal meaning of the words composing the concrete domain of *war* (e.g., *fight, force, ground*, etc). The students practiced the use of metaphors and idioms by completing such exercises as writing sentences and paragraphs, translation, and engaging in communicative activities. The control group was taught using traditional methods, which included activities such as idiom discussion and definition, games, and storytelling. All of the students took a course that met once a week for sixteen weeks. At the end of the semester a post-test was administered, which was another multiple-choice test. The statistical analysis of the results showed that the experimental group scored significantly better on the test in comparison with the control group, leading the researchers to conclude that conceptual metaphors facilitate

learning idioms (Samani & Hashemain 2012:253). Those participants were able to retain the idioms because they were familiar with the literal and metaphorical meaning of the words.

Zyzik (2010), among other researchers, has also insisted on figurative language being taught explicitly in the classroom. And, although idioms are best acquired through interaction with native speakers, explicit formulaic language teaching can act as a stepping stone toward building awareness of their existence and how they are used in natural discourse. In her study Zyzik examined the effects of explicit language teaching of idiomatic phrases to 65 undergraduate advanced learners of Spanish as an L2. Almost all of them were native speakers of English. They were divided into three groups: one control and two experimental groups. The main goal of her study was to investigate whether idiom acquisition would improve if those idioms were grouped thematically when taught. For example, the notion of bad behavior: *dar gato por liebre* ('trade a cat for a hare') or *echar leña al fuego* ('add wood to the fire') instead of having them centered on the main verb (*hacer, tener, ser, estar*; 'to do', 'to have', 'to be', 'to be'). Thirty-eight idioms were presented and taught during regular class sessions once a week for fifteen minutes in a ten-week period. The idioms were presented with an authentic context. The first experimental group received instructions centered on the thematic organization of the idioms, and the second group was taught focusing on the main verb. To test the level of acquisition, the students were given two tests, a pretest and a post-test. Each of the tests consisted of two exercises: the first exercise tested production of idioms, and the second, recognition of idioms in the form of a multiple-choice test.

The results show that both experimental groups, regardless of the type of instruction they received, improved in terms of recognition and production of the idioms after they had been taught explicitly in the classroom. Nevertheless, the success level for production was much lower

than it was for recognition. Zyzik attributed the difference to various factors. She pointed out that

the instruction was focused on recognition of idioms and not on production. Also, the task of

active production is much more difficult than the one of passive recognition. Being able to

recognize a word does not necessarily mean that the L2 learner will be able to produce it in an

appropriate context (Zyzik 2010:464). Nevertheless, the study showed that the thematic grouping

was not any better than the verb grouping when it came to recognition and production of the

idioms. Those findings contradict previous studies done by Boers (2000) and Boers et al. (2004,

2007) in which thematically organized idioms were much easier to acquire by L2 learners. Since

the thematic versus verb grouping did not yield any significant differences and both groups'

scores were similar, the author focused her attention on the type of errors the participants made

in the production of the idioms. She distinguished five major types of errors: (1) wrong verb

used; (2) omission of a content word; (3) wrong or omitted clitic; (4) wrong gender and number;

and (5) wrong or omitted preposition. Zyzik also noted that the morpho-syntactic errors the

subjects made affected the internal structure of the idiomatic phrases. This happened because the

subjects as L2 learners are imposing their own analysis of the internal structure of the idioms

because they are subjecting them to the rules of the interlanguage they have at the moment.

The studies examined here have provided empirical data that suggest effective teaching

methodologies that take advantage of conceptual metaphor mapping and increased etymological

awareness can enhance idiom acquisition in the classroom. In addition, depending on the

language, grouping idioms by the main verb may also be beneficial to the L2 learner. Teaching

idioms in the classroom, especially in languages other than English, is still in its early stages.

However, more and more language pedagogues and linguists acknowledge the importance of

good figurative language command as central to successful L2 acquisition. Hence, we suggest

that students should be made aware of idiomatic language early on in language acquisition and given the opportunity to practice it in the classroom instead of waiting until they have the opportunity to be exposed to the language in a more naturalistic environment. Even though studies on teaching idioms are not the focus of this dissertation, they are still relevant because they show that L2 learners are capable of acquiring idioms in a formal setting. Also, since idioms vary in transparency, explicit teaching in terms of etymological elaboration may be especially beneficial to L2 learners when it comes to understanding and acquiring non-decomposable idioms, mainly because they are unique, culture-bound expressions. In addition, being able to map out the underlying metaphor from the native onto the target language and vice versa can help L2 learners become better acquainted with culturally salient concepts and extra vocabulary words. Raising metaphoric awareness in the L2 and improving idiomatic knowledge can be beneficial to all language learners from all levels, even the most advanced ones. The results from the experiments in this dissertation demonstrate that near-native L2 speakers also have trouble reproducing dissimilar idioms because those tend to be nondecomposable and culture dependent even when given in context. Those findings suggest that L2 learners can benefit from explicit guidance in the classroom before being exposed to idiomatic language in a more naturalistic environment.

3.8. Conclusion

Even though studies on how L2 learners comprehend, process, and produce idioms in the L2 are far fewer than those in the first language, more scholars acknowledge the importance of good idiom command and have undertaken the task to study the different ways L2 learners cope with figurative language. Irujo (1986b) and Liontas (2001, 2002, and 2003) focused on the influence the native language has on the target one during the comprehension process, resulting

in positive transfer if the idioms are identical in both languages but hindrance if the idioms differ. Liontas also examined the importance of context as a key factor in aiding comprehension in L2 learners. Cieślicka (2006) and Siyanova-Chanturia et al. (2011) provide evidence that nonnative speakers process idioms literally first, activating the figurative one only when the literal meaning is rejected. Colkin & Schmitt (2008), however, found that when L2 learners are presented with idioms embedded in rich context; they interpret them figuratively, bypassing the literal interpretation of the constituents. By and large, L2 learners do not avoid using idioms in the target language, especially when they are aware that there is a corresponding figurative phrase in their L1 (Irujo 1993, Laufer 2000). When advanced L2 learners try to make sense of unknown idioms, they tend to use contextual information as a main strategy to work out their meaning (Cooper 1999, Bulut & Celik-Yazici 2004, Liontas 2002). However, when less proficient L2 learners are faced with the same task, they tend to focus on key words within the idiomatic expression and not on the context (Liontas 2001) surrounding the idiomatic expression because their vocabulary in the L2 is not well developed. L2 students seem to benefit from being taught explicitly the historical origins of idioms they are acquiring in the L2 (Boers et al. 2003, 2004, 2007, 2009). Knowing the etymological elaboration of a particular idiom improved their comprehension, retention, and even production in the L2. Nevertheless, when students are overwhelmed with too many stimuli, such as being presented simultaneously with information about the origin of the idiom and a pictorial image, they tend to focus on the wrong image and are left with less time to process the auditory information, resulting in poorer understanding of the origin of the idiom and, ultimately, less successful production.

Other researchers have argued that linking the idioms with their underlying conceptual domains will be more beneficial to improving L2 learners' comprehension and long-term

retention (Samani & Hasheiman 2012). Nevertheless, the opaque, culture-specific idioms may still have to be memorized until the L2 learner figures out a way to map the meaning onto an underlying concept to aid the recognition and possible long-term retention of the idiom (Bortfeld 2003). Another important factor for successfully using conceptual metaphors is salience of a particular domain in a given language. People from different cultures share similar experiences; however, they do not always use the same domains to express them. And, even if a concept is salient in both languages, it does not necessarily mean that an L2 learner will be able to correctly identify the idiom (Boers et al. 2001, 2004). Etymological elaboration and conceptual domain mapping have been applied to L2 idiom teaching as well. Researchers found that drawing L2 learners' attention to the underlying conceptual domain allows them to improve their figurative comprehension and commit the idioms to their long-term memory. Although there is no consensus on the best way to group idioms in order to present them in the classroom, it is evident that when L2 learners are taught idioms in a meaningful, task-oriented manner, and not simply asked to memorize them, the students improve their figurative knowledge in the L2 (Zyzik 2010).

The two studies in this dissertation build on previous research in idiom comprehension and production in the L2. I studied the influence of semantic and syntactic similarity (Irujo 1986; Laufer 2000; Liontas 2002) between the native and the target languages on the production of common Spanish idioms by near-native L2 speakers in a gap fill exercise. However, the difference between the present study and the previous ones is that here I focused on identifying the constituent that will serve as an idiom key word (as originally proposed by Cacciari and Tabossi 1988) and aid comprehension and production of idioms in the L2 when one of the content words is removed from the idiomatic phrase. In this case, the omitted word was either the

verb at the beginning of the phrase or the first noun. The results from the first experiment were in line with Irujo and Liontas' studies because the near-native L2 speakers of Spanish were most successful at producing the identical idioms primarily due to positive L1 transfer, but experienced the most interference with the similar idioms since such transfer was not possible due to small differences between the native and target languages. The dissimilar idioms were the most difficult to produce since they did not share the same conceptual metaphors. The difference in vocabulary words also added to the difficulty of idiom production in the gap fill task, especially when the L2 learners had to provide the missing noun. They had greater success at providing the omitted verb. We looked at the difference in success rates when the verb was omitted versus when the noun was omitted and found that when the noun is present in the idiomatic phrase, the L2 learners are more likely to provide the correct missing verbs, but this did not hold true when the verb was present and the L2 learners needed to supply the correct missing noun. We concluded that the noun acts as an idiom key for the L2 learners since it provided them with more connective information about the particular idiomatic phrase, leading them to successfully reproduce the missing verb.

In the second experiment for this dissertation, we studied the strategies near-native speakers of Spanish as an L2 would employ when trying to work out the meaning of unknown idioms. We partially replicated Cooper's 1999 study and compared the results to the existing body of research (e.g., Liontas 2002, Bulut and Celik Yazici 2004, and Rohani et al. 2012) in order to determine the differences and similarities of the strategies used by near-native L2 speakers in comparison to less advanced learners, because there are very few studies that have focused on advanced and near-native speakers in languages other than English as an L2 in idiom

comprehension and production. The next chapter will provide more information on the

methodology employed in the two experiments.

CHAPTER 4

METHODOLOGY

In this chapter, I outline the rationale for the two experiments carried out for this dissertation. First, I pose the research questions and present the instruments for the two studies. In the first study, I tested for familiarity with common Spanish idioms embedded in context by asking L2 speakers of Spanish to supply the missing constituent from the phrase and compared their results to a control group of native Spanish speakers. The second study focused on examining the different strategies L2 learners use when working out the meaning of unknown idioms. Later in this chapter, I compare the results from the second experiment to previous research on the topic and discuss the procedure of the think-aloud protocols.

4.1. Research Questions

It is important to mention that, syntactically, most idioms in Spanish consist of a verb (V) and a noun phrase (NP). The V + NP structure often includes a prepositional phrase (PP), for example: *dar luz verde* (V + NP); *No tener pelos en la lengua* (V +NP PP); *Andarse con rodeos* (V +PP). In order to preserve the syntactic consistency of the idioms, for the first part of the study all of the idioms were phrasal ones. Another common idiomatic construction is a noun phrase (NP), for example, *la oveja negra*. This construction, along with the phrasal verb construction, was used in the second part of the study so that the subjects were exposed to a larger variety of idioms in the second language.

The research questions under investigation can be formulated as follows:

1. How familiar are the L2 learners with this particular group of common idioms?

2. Does the degree of similarity in meaning and structure of the idiomatic phrase play any role in the recognition and production of idioms?

3. If either the verb or the noun phrase is omitted, which one of the two constituents will act more as an "idiom key word"? Which of the two constituents will aid more in the recognition and production of the idiomatic expression?

4. What strategies in particular do the L2 learners of Spanish use in order to arrive at the correct figurative meaning of an unknown idiom given in context?

5. Will there be any difference between the two groups in terms of strategies used when one of the groups is given the literal meaning of the words in the idiomatic phrase?

6. Does the length of time spent in a Spanish-speaking country have any influence on the recognition and production of idioms, regardless of the similarities and dissimilarities with the speakers' native language?

4.2. Aim of the Research

This project examined the comprehension and production of idioms by advanced or near-native speakers of L2 Spanish, with English as their L1. The study also examined the strategies that L2 learners use when dealing with unfamiliar idioms. The current study was two-fold; part one focused on the production of idioms, and the second part examined the strategies second-language learners use when they encounter an unfamiliar idiom. The first task focused on the degree of similarity between the idioms in the two languages (L1 and L2) and possible

interference from the L1. The second task attempted to account for the issue of compositionality and examined its aid or interference when applied to L2 learners.

In the first part the participants were asked to supply the missing word (either the verb or the noun) from the idiomatic phrases, which were divided into three groups according to Irujo's similarity principle discussed in chapter 3. The study specifically targets the phrasal idioms because they constitute a rather large group. The syntactic structures of the phrases are as follows: Verb + Noun Phrase or Verb + Noun Phrase + Prepositional Phrase, or Verb + Prepositional Phrase. The idioms from the three different groups appeared in context to aid comprehension and production when one of the syntactic components - either the verb or the noun- was removed from the idiomatic phrase in order to determine which one of the two words would act as an idiom key word, i.e., which word would aid better in the recognition of the idiom and its successful production. The originally proposed idiom key hypothesis (Cacciari & Tabossi 1988; Tabossi & Zardon 1993, 1995), however, was modified since the participants were not asked to complete increasingly long segments of idiomatic strings out of context. Instead, they had to provide the missing word of the phrase within a context. Although the thypothesis has been tested with native speakers only, establishing which word aids the reproduction of the specific idiom should help us gain a better understanding of the cognitive processes employed by the nonnative speakers while attempting to reconstruct the idioms. If they are working with an idiom that is familiar to them or has an exact equivalent in the L1, the subjects may directly retrieve the idiom from their mental lexicon and accurately provide the missing word. On the other hand, if the idiom is unfamiliar or different in both languages, the participants may resort to decomposing it in order provide the missing word, which in turn may result in incorrect

production of the missing word. The success rate in filing in the blanks can also serve as a model for creating teaching materials based on the idiom key word for less advanced learners.

For the second part, the participants were asked to give the correct figurative meaning of an unknown idiom or its literal paraphrase according to particular context via think-aloud protocol (Cooper 1999; Bulut & Celik-Yazici 2004). This part of the study tested the kind of techniques the L2 learners employed in order to arrive at the correct figurative meaning of an unknown idiom. The assumption was that compositionality would play a key role because the unknown idioms, i.e., those never having been encountered before by the study's participants, are not stored in the speaker's memory as long words. As a result, the second language learners used, among other strategies, the literal meaning of the parts of the idiomatic phrase as a clue to its figurative meaning, thus decomposing the idiom. It was of interest to examine whether decomposing idioms was preferred over other strategies such as guessing from context, using background knowledge, L1 transfer, etc.

The level of familiarly with a particular idiom, or the lack of familiarity, also influences the strategies used by native and nonnative speakers. When dealing with familiar idioms, both native and non-native speakers apply the same strategy, i.e., they use contextual information and conceptual knowledge, which may lead to direct memory retrieval (Liu 2009:73-4). However, when L2 learners are faced with unfamiliar idioms, they have been observed to use a heuristic approach, which according to Cooper (1999:254) means "both a procedure and a learning method" because L2 learners approach the particular idiom as a problem and try to resolve it on a trial and error basis by using variety of strategies, such as guessing, using pragmatic knowledge, and even experimentation (Liu 2009:73).

It has been shown that the use of contextual information is one of the major strategies employed by L2 learners when processing idioms. In a pilot study, Cooper (1999) set out to determine the particular strategies L2 learners use when confronted with an unfamiliar idiom as noted in the previous chapter. Eighteen adult ESL learners from different backgrounds participated in the study. Via think-aloud protocol, he identified eight major strategies the students employed while analyzing the idioms. The first three approaches were used most often, accounting for total of 71%. Guessing from context was the most frequent strategy (28%), closely followed by discussing and analyzing the idiom (24%), then using the literal meaning (19%). Bulut and Celik-Yazici replicated the study in 2004 with Turkish teachers of English. They too obtained similar results, ranking guessing from context as the most frequently used strategy by the ESL speakers that led them to successful interpretation of the idioms (57%). However, as Liu (2008:66) points out, although contextual information is an important and useful tool in idiom comprehension, it does not always lead to correct understanding of idioms. The present study used a similar think-aloud. Each subject's response was analyzed and labeled according to the idiom comprehension strategy used by the participant. One of the objectives of the present study was to partially replicate Cooper's study in order to gain valuable insight into the cognitive processes occurring during interpretation of idioms in a foreign language other than English with highly advanced L2 learners.

4.3. Method/Data Collection

After the initial contact, the researcher met with each participant individually three times. The first meeting consisted of briefing the subjects about the two experiments. Once the subjects agreed to participate in the study, they signed a consent form, then completed a demographic questionnaire, and finally took the grammar part of DELE superior to assess their level of

proficiency in the L2. Demographic information was collected in order to determine number of

years of study and length of stay in a Spanish-speaking country, as well as which country. After

that, the subjects were divided into two homogenous groups according to their DELE scores:

group A and group B for the first study. The subjects were divided into two different groups for

the second task as well. This time, however, the criterion for the division was based on their

availability, i.e., the first nine participants formed group A and the second eight, group B. The

study was divided into two tasks administered on separate days up to two weeks apart, depending

on the participants' availability. This was done in order to avoid participant fatigue, which could

have influenced the results.

In the first study, the L2 learners were asked to provide the missing word from the

idiomatic phrase. Group A was asked to provide the missing verb, and group B to provide the

missing noun from each phrase. All of the verbs in the first group were infinitives, since the

different tenses and moods were not tested here. Using the computer program *QuizCreator*, they

were asked to type the missing word in order to complete the idiomatic phrase. Each of the

idioms had three versions (A, B, and C) that differed in the amount of context provided. If the

participant gave the correct answer on the first try (version A), s/he moved on to the next idiom.

If the subject was unable to provide the correct answer, s/he had two more attempts to do so. The

second version (version B) contained the same idiom embedded within context that aimed to aid

comprehension and production of the missing word. However, if the extra context was

insufficient, the participant was able to obtain more information about the idiom in the third

version (version C) by being able to see the same extended context from the previous version

along with both the literal translation and the figurative meaning of the particular idiom in

English. The participants in group A had to provide the missing infinitive verb in each of the 25

idiomatic phrases. Also, the subjects were provided with the article to serve as a clue for the missing noun's gender and number.

For example, Group A:

*El encuentro informal, de carácter privado, fue un intento de ___ **el hielo** en la primera unión entre EEUU y China en los últimos 12 años.*

For example, Group B:

*El encuentro informal, de carácter privado, fue un intento de **romper el** ___ en la primera unión entre EEUU y China en los últimos 12 años.*

In the second part of the study, the same subjects were asked to provide the correct figurative meaning or the literal paraphrase of an unknown Spanish idiom within a context. However, in order to determine exactly how the subjects arrived at their answer, they were asked to verbalize their thoughts, which were recorded. This was done in order to determine what strategies they used when dealing with unfamiliar idioms. Each recording was transcribed word for word, and the different techniques were analyzed and ranked by their frequency of usage, i.e., whether the subject used such strategies as guessing the meaning of the idiom from the context, using the literal meaning of the idiom as a key to its figurative meaning, using background knowledge to figure out the meaning of the idiom, or referring to an idiom in the L1 to understand the L2, among other strategies (Cooper 1999:242-3). The verbalized thoughts were recorded on a SONY MP3 player. The participants were not given a time limit to complete the

two parts of the study, although on average they took 25 minutes for the first part and 40 minutes for the second part of the study.

4.4. Participants

4.4.1. L2 Learners of Spanish with L1 English

The subjects are Master's and Ph.D. students at the University of Georgia majoring in Spanish Literature or Spanish Linguistics as well as instructors who have earned a Master's degree in Spanish Literature or Linguistics who are currently employed in the same department. There were eighteen participants: ten female and eight male. The study targets highly advanced or near-native L2 learners of Spanish because they are more likely to have a rich vocabulary and a good command of the grammar than are less advanced learners or beginners. All of the participants in both the test and control groups were contacted initially via email and later on in person to confirm their participation.

The eighteen L2 learners have an average age of 28.3 years. Twelve out of the 18 participants had been to a Spanish-speaking country, where their stay ranged from as little as five weeks to as long as four years with an average time spent abroad of 14 months. The subjects have spent 10.6 years studying Spanish on average. Their DELE scores ranged from 28 to 52 out of 60 (69%) for the first group, and from 30 to 49 out 60 (70%) for the second group. Appendix B summarizes the characteristics of the L2 speakers in the study.

4.4.2. Control Group

In order to check grammatical and idiomatic accuracy, there was also a control group of native speakers of Spanish from different regions who were either graduate students or instructors in the Department of Romance Languages. There were a total of eight participants: three female and five male from four countries. Four of the participants were from Peru, two

were from Spain, one was from Mexico, and one was from Colombia. Also, there was one native

speaker who proofread all of the materials but did not take part in the study. The average age for

the control group was 32.5 years. See appendix C, which summarizes the characteristics of the

native speakers in the study.

4.5. Materials and Procedure

Given the nature of the study, the idioms are presented in a naturally written target

language**.** The texts are taken from the online corpus of the Spanish Royal Academy or the

Corpus de Referencia del Español Actual ("CREA"), which offers a large variety of spoken and

written Spanish from different disciplines and regions. The texts were chosen to cover a wide

variety of topics, such as literature, politics, computers, history, arts and culture, music, law,

astrology and occult sciences, economy, sports, fashion, etc. However, the texts were altered to

exclude any other idioms that were used within the same paragraph as well as to shorten the

context whenever necessary or to provide some clue words.

4.5.1. Experiment 1

For the first part of the study, 30 idioms were used. They were divided into three groups

according to the degree of similarity between the L2 language, Spanish, and the L1, English: 10

idioms were identical in semantic meaning and syntactic form, 10 were similar, and 10 were

different. The idioms added to the list modeled the degree of similarity between the two

languages proposed by Irujo (1986). (A detailed example of each type of idioms is given in

appendix)*.* Some of the idioms were taken from Irujo's (1986) study in which she compiled a list

of highly frequent Spanish idioms. Other idioms with V (+ NP) (+PP) construction were added

to the list from various sources, such as idiomatic dictionaries or other studies (Liontas 2003 and

Zyzik 2010). Examples of each type are as follows:

Version A Limited contextual clues	**Group A – provide the missing verb**
Context **6A. prensa/política/1997** El País: Clinton y Jiang se reúnen en la Casa Blanca *El artículo se trata de la reunión entre el presidente de los Estados Unidos, Bill Clinton, con el presidente de la República Popular de China, Jiang.* La reunión que Bill Clinton y Jiang Zemin iban a sostener anoche en la Casa Blanca no estaba prevista en el programa oficial.	El encuentro informal, de carácter privado, fue un intento de _____ **el hielo** en la primera unión entre EEUU y China en los últimos 12 años.
	Group B – provide the missing noun El encuentro informal, de carácter privado, fue un intento de **romper el** _____ en la primera unión entre EEUU y China en los últimos 12 años.

Version B Expanded contextual clues	**Group A – provide the missing verb**
Context **6B. prensa/política/1997** El País: Clinton y Jiang se reúnen en la Casa Blanca *El artículo se trata de la reunión entre el presidente de los Estados Unidos, Bill Clinton, con el presidente de la República Popular de China, Jiang.* La reunión que Bill Clinton y Jiang Zemin iban a sostener anoche en la Casa Blanca no estaba prevista en el programa oficial.	El encuentro informal, de carácter privado, fue un intento de _____ **el hielo** *y mejorar las relaciones entre los dos países* en la primera unión entre EEUU y China en los últimos 12 años.
	Group B - provide the missing noun El encuentro informal, de carácter privado, fue un intento de **romper el** _____ *y mejorar las relaciones entre los dos países* en la primera unión entre EEUU y China en los últimos 12 años.

Version C Expanded contextual clues and idiomatic information	**Group A – provide the missing verb**
Context **6C. prensa/política/1997** El País: Clinton y Jiang se reúnen en la Casa Blanca *El artículo se trata de la reunión entre el presidente de los Estados Unidos, Bill Clinton, con el presidente de la República Popular de China, Jiang.* La reunión que Bill Clinton y Jiang Zemin iban a sostener anoche en la Casa Blanca no estaba prevista en el programa oficial.	El encuentro informal, de carácter privado, fue un intento de _____ **el hielo** *y mejorar las relaciones entre los dos países* en la primera unión entre EEUU y China en los últimos 12 años. *literal translation:* **to break the ice** figurative meaning: **to break the ice**
	Group B - provide the missing noun El encuentro informal, de carácter privado, fue un intento de **romper el** _____ *y mejorar las relaciones entre los dos países* en la primera unión entre EEUU y China en los últimos 12 años. *literal translation:* **to break the ice** figurative meaning: **to break the ice**

 Furthermore, those three groups were divided into two more depending on which constituent, the verb or the noun was omitted from the phrase. The idioms from the three different groups appeared in context to aid comprehension and production when one of the syntactic components, either the verb (V) or the noun (N), from the idiomatic phrase was removed in order to determine which one of those two words would act as an idiom key word, following the research design used by Cacciari and Tabossi (1988) and Tabossi and Zardon (1993, 1995). Context is defined as the discourse before and after the idiomatic phrase.

4.5.1.1. Experiment 1 Procedure

The subjects were divided into two groups according to their DELE scores. The purpose of the DELE was to create two equal homogenous groups for the first experiment. Group A had to provide the missing verb in all 25 idiomatic expressions and group B had to provide the

missing noun. The participants sat in front of a DELL computer and read the passages online using the program *QuizCreator*. There were three practice paragraphs for each group that allowed the subjects to become acquainted with the program and the task at hand. The subjects worked on one idiom at a time. The idiomatic phrases were presented in random order, so the participants were not aware of the degree of similarity between the two languages. Once a particular answer was given, the subjects were not allowed to go back and change it. The researcher was present in the computer lab each time an L2 learner took the test to monitor the progress and deal with any potential problems. The native speakers were divided into two groups depending on the country of origin: one group consisted of two participants from Peru, one from Spain, and one from Mexico; the other group included two participants from Peru, one from Spain, and one from Colombia. These two groups were given exactly the same two versions of the test, respectively (Version A with the omitted verb and Version B with the omitted noun) along with the same instructions translated into Spanish and were asked to supply the missing word. They were given two weeks to complete the task at their convenience. It was expected that as native speakers, they would be familiar with the idioms and thus were not likely to consult any external sources.

4.5.1.2. Scoring

Each type of answer received a different point value. Three points were given for version A, two points for version B, and one point for version C. No points were given for a wrong answer. Minor misspellings that did not change the meaning of the verb in question were not considered wrong answers; nor were conjugated verbs.

4.5.2. Experiment 2

For the second task, only the L2 speakers of Spanish were asked to give the correct figurative meaning or the literal paraphrase of the idioms according to the context. The participants were divided at random into two groups depending on their availability. The first nine participants made up group one, and the second 8 made group 2. One participant chose not to continue (participation in the study was entirely voluntary). The first group did not receive any help with unknown words within the idioms, whereas the second group was given the literal meaning of the individual words within the idiomatic phrases upon request. The subjects were asked to think aloud while they were trying to arrive at the correct meaning of the idiom. The idea was to compare any differences in the strategies used between the two groups of L2 learners if one of the groups were given the literal meaning of the individual constituents. The list contained fifteen idioms. They were different from the ones used in the previous experiment. Example:

10. Prensa/ astrología y ciencias ocultas/Costa Rica/1996

Título: La Nación: Brujos, floreciente e impune negocio

El psiquiatra Abel Pacheco califica a los brujos como 'viles ladrones y rateros.' Él continúa a explicar que la gente está buscando soluciones fáciles; hay personas que si les ofrecen amor y dinero pues, lo compran y el precio no importa. Somos producto de una cultura mágica. Mucha gente desesperada busca milagros y hay quienes las ofrecen; es muy fácil creer. Además de cobrar demasiado dinero por sus consultas, los llamados adivinadores **hacen su agosto** con la

venta de distintos artículos con 'poderes mágicos' para alejar cualquier mala influencia. Estos objetos, hechos con trozos de hule, vidrio o madera, tienen un costo que oscila entre 5 y 50.000 dólares.

The objective of the study was to examine the kind of techniques the L2 learners employ in order to obtain the correct figurative meaning of the unknown idiom. Cooper (1999:243) suggests that L2 learners of English employ strategies such as guessing the meaning of the idiom from the context, using the literal meaning of the idiom as a key to its figurative meaning, using background knowledge, or referring to an idiom in the L1 to understand the L2, among other strategies.

4.5.2.1. Experiment 2 Procedure

Seventeen subjects took part in the second study, and they were divided at random into two groups based on their availability. The two groups were different from the groups in the first experiment. In the second study the participants read 15 idioms embedded in a paragraph-long context. The researcher instructed the subjects to let her know if they knew the particular idiom or not. If they knew a particular idiom, they were asked to give its equivalent in English or its literal interpretation and move on to the next idiomatic phrase on the list. If they did not know the meaning of the idiom, the researcher requested that the subjects verbalize their thoughts while working out the meaning of the figurative phrase. The participants' answers were recorded. However, they were not given other instructions beyond that. The subjects read one paragraph at a time, discussed it, and then moved on to the next one. There was also a short warm up that consisted of a brief conversation in English on such topics as classes, weather, free time, etc. The goal was to help the participant relax and feel at ease. All of the subjects already

knew the researcher because they had met with her previously on two occasions, once to take the

DELE and again to complete the first experiment. However, since all of the subjects and the

researcher study and work in the same department, they all have seen each other on different

occasions. All of the interviews took place on campus, either in the researcher's or the

participant's office.

The researcher began each session by making the following request: "I would like for you

to verbalize your thoughts as you try to work out the meaning of the idioms within context." The

researcher chose not to coach the subjects on how to express their thoughts because she wanted

to avoid influencing the participants' thought processes in any way. However, if the participants

were too verbose without providing a clear answer or without summarizing the meaning of the

idiom, the researcher asked them guiding questions. Also, initially when a subject began reading

a paragraph and he/she was silent for 45 seconds to a minute, the researcher began asking

guiding questions. Depending on the quality of information they provided, they were asked one

or more clarifying questions from the following list:

1. What do you think the idiom means?

2. How do you know that?

3. What clues did you look for?

4. Do you know this from context?

5. Do you know this from the idiom itself?

6. Is there anything else that is helping you arrive at that meaning?

7. If you have to summarize the meaning of the idiom, what would that be?

8. If you have to get/extract some kind of meaning from the phrase, what would that be?

9. Are the words within the idiomatic expression helping you in any way?

10. What words/phrases within the context are helping you?

The most common strategies used to interpret the meanings of the unknown idiom were detected and grouped, after which the answers were scored for accuracy.

4.5.2.2. Scoring

The answers were scored the following way: two points were given for supplying the correct idiomatic equivalent of the Spanish phrase or its literal periphrasis; one point was given for a partially correct answer; and zero points for a wrong answer. After that, the strategies were identified and ranked according to their frequency of use. Also, they were compared to the strategies from three previous studies, those of Cooper (1999), Liontas (2002), and Rohani et al. (2012).

4.5.2.3. Idioms

Since the purpose of the study was to record and analyze the strategies L2 learners use when working out the meanings of unfamiliar idioms, the researcher intentionally chose idioms that are not very common and are predominately different in syntactic and semantic structure from their English counterparts. The majority of the idiomatic phrases were semi-transparent, i.e., the constituents contribute indirectly to the figurative meaning of the idiom. Seven out of the 15 idioms were in this category. They were *pan comido* (lit., 'eaten bread', fig., 'piece of cake'); *poner el casacabel al gato* (lit., 'to put a bell on the cat', fig., 'to stick one's neck out'); *tener a alguien con el alma en un hilo* (lit., 'to have somebody with his/her soul on a thread', fig., 'to be on pins and needles'); *tener la sarten por el mango* (lit., 'to have the frying pan by the handle', fig., 'to call the shots'); *qué mosca le ha picado* (lit., 'what bug has bitten him/her', fig., 'what's eating him/her?'); *sacar de quicio* (lit., 'to unhinge', fig., 'to get under somebody's skin'), and

hablar por los codos (lit., 'to speak through the elbows' fig., ' to be a chatterbox'). The next group of idioms included the opaque ones, i.e., the individual parts do not contribute to the overall figurative meaning of the idiom, such as *pagar el pato* (lit., 'pay the duck', fig., 'to take the rap'); *dar la lata* (lit., 'to give the thin can', fig., 'to drive crazy'); *meterse en camisa de once varas* (lit., 'to put on a shirt 9 meters long', fig., 'to bite off more than one can chew'); and *hacer su agosto* (lit., 'to make his/her August', fig., 'to make a killing'). The third type of idiom was transparent, i.e., the individual words contribute to the overall meaning of the idiomatic phrase. There were four idioms in this category: *soltar la lengua* (lit., 'loosen the tongue', fig., 'spill the beans'); *ser aguafiestas* (lit., 'to water down a party', fig., 'to be a party-pooper'); *andarse con rodeos* (lit., 'to walk in circles', fig., 'to beat around the bush'); and *ir al grano* (lit., 'to go to the grain', fig., 'to cut to the chase').

There were a total of 15 idioms and each of them was embedded in a paragraph-long context. The texts were taken from CREA and modified to exclude any other idioms that were used. Any other idioms found in the natural context were replaced with their literal periphrases to avoid distracting the subjects from the idioms at hand. Also, in eleven out of the fifteen paragraphs, clue words and/or phrases were added to aid comprehension of the idiomatic phrases. The other four texts were judged to contain sufficient information related to the meaning of the idioms without having to add extra clue words.

4.6. Brief Overview of Think-Aloud Protocols (TAs)

Think-aloud (TA) protocols have been used for more than sixty years in cognitive psychology. Other disciplines have also adopted the verbal protocols as a reliable measurement for "subjects' cognitive processes in specific tasks" (Bowles 2010:5). Fields such as accounting, anthropology, counseling, drug and alcohol addiction treatment, marketing, nursing, and

computer programming, have been using TAs to gain helpful information about clients' decision-making processes as well as their actions and behaviors (Bowles 2010:6). Since the 1970s, the verbal protocols have also been used in the fields of L2 acquisition and linguistics. Some of the research focused on studies in L2 reading and comparison and contrast of L1 and L2 reading strategies (A.D. Cohen 1987; Hosenfeld 1976, 1977, 1979; 1982, Maeng 2005; Yamashita 2002, among others), writing strategies (e.g., Beare2001; Jannausch 2002), test-taking strategies (e.g., A.D. Cohen 2000, Norris 1992, A.D. Cohen & Upton 2007), interlanguage pragmatics (e.g., A.D. Cohen & Hosenfeld 1981, Kasper & Blum-Kulka 1993), oral interaction research (e.g., Mackei et al. 2000; Naibei & Swain 2002), and translation processes (e.g., Enkvist 1995, Fraser 1993), among others (cited in Bowels 2010:11-12).

Ericsson and Simon (1993) distinguish between two types of TAs according to temporal space, i.e., whether the subjects are verbalizing their thoughts while performing the task, producing *concurrent* reports, or whether they are asked to verbalize their thoughts sometime after the task was completed, using *retrospective* reports. Another distinction can be drawn depending on whether the participant is verbalizing his/her thoughts per se or non-metalinguistically (Bowles 2010:13), on the one hand, and on the other, whether the subject is required to provide specific information such as explanations or justifications of what they think their processes are, also known as a metalinguistic task (Leow & Morgan-Short 2004:36).

Although verbal protocols offer very insightful information about cognitive processes, some researchers warn against their limitations. Barkaoui (2011:52) points out that TAs are difficult to administer because the participants are often not used to verbalizing their internal thoughts while focusing on a completion of a task. However, the main criticism of TAs concerns their veridicality and reactivity. "Veridicality concerns whether TAs accurately report and

represent the participants' true and complete thinking and rating processes, while reactivity concerns whether the requirement to report the rating process alters the process being observed and/or its outcomes" (Barkaoui 2011:52). Ericsson and Simon (1993) agree that TAs are incomplete because only the contents of short-term memory are available for conscious inspection and reporting. However, such incompleteness is valuable because the reported data should still be sufficient to infer the nature of the unreportable processes hidden in the long-term memory (Barkaoui 2011:52). Furthermore, after reviewing several studies from various fields, Leow and Morgan-Short (2004) arrived at the conclusion that verbal reports, although extending the on-task time, do not alter the internal thought-processing, which, in turn, does not negatively affect performance. This information supports the proposal expressed by Ericsson and Simon (1993: xx) that "in general, thinking aloud does not lead to a reliable change in the cognitive process as reflected in accuracy of response" (cited in Leow et al. 2004:43).

Think-aloud protocols in L2 acquisition generally require that individuals vocalize what is going on in their minds as they are solving a problem or performing a task (Deschambault 2012:267). Therefore, for the present study, concurrent metalinguistic TA protocols were employed in order to gain more information about the thought processes and strategies the L2 learners used when working out the meaning of idioms unknown to them. The subjects were allowed to think in the language of their choice, and because of that they chose their L1 as the predominant language. However, often they would code mix and include words or phrases from the L2 in order to better express themselves while performing the metacognitive task of thinking aloud and figuring out the meaning of the idiom in question.

The Think-aloud protocol used in this study provided very insightful information about the strategies the near-native speakers used while working out the meaning of the unfamiliar

idioms. However, a drawback to this method was that the subjects were not always able to recall the meaning of the different words or even idioms in the L2 during the concurrent report and that may have influenced their overall success rate in providing the correct answer for the selected group of idioms because they were able to access the contents from their short term memory only as it was previously observed by Ericsson and Simon (1993).

4.7. Data Analysis

4.7.1. Experiment 1

After all of the participants completed the fill-in-the-blank exercise, the researcher reviewed the answers and compared them to the native speakers' responses to account for any regional variation not found in the dictionaries consulted for this study. For example, in the expression *tirar la casa por la ventana* (lit., 'to throw the house out of the window', fig., 'to paint the town red') there is a verb variation, *botar* ('to throw out', 'to toss'). In order to assess whether such variation was an acceptable one, the researcher compiled a list of idiomatic phrases in which the native speakers provided diverse answers not found in the dictionaries and asked them to do an acceptability judgment task. (The complete list of the task can be found in appendix D). Seven of the eight participants completed the acceptability task. The researcher accepted a variation of a particular idiomatic phrase if at least three out of the seven participants judged it to be acceptable or correct. As was mentioned earlier, each answer had a different point value (3 points for a correct answer given in version A, 2 points for a correct answer provided in version B, one point for a correct answer supplied in version C, and zero points for an incorrect answer). Once the scores were tallied, percentages for the success rate were calculated for each type of idiom, identical, similar, and different. Afterwards, the different factors affecting idiom production were analyzed. T-tests were performed on the overall scores, on the scores for

identical, similar and different idiomatic expressions for the near-native speakers and on the scores for the two different groups, those who provided the missing noun and those who provided the missing verb. For the analysis of the impact of study abroad, a linear regression was performed on the time spent abroad and individual overall scores.

4.7.2. Experiment 2

After the think-aloud sessions were completed, all of the recordings were transcribed word for word, and the data were analyzed both for the overall success rate between the two groups of L2 learners and for the types of strategies used while working out the meaning of unfamiliar idioms. Each subject's response was divided into T-units. A minimal terminable unit or T-unit, as described by Hunt (1970:4), is "one main clause plus any subordinate clause or nonclausal structure that is attached to or embedded in it." Each unit was analyzed and labeled according to the idiom comprehension strategy used by the participant. The overall success rate for each of the idioms in the two groups was calculated first and then the two groups were compared with each other. The answers were scored as correct, partially correct, or incorrect. When the subjects gave the English equivalent of the Spanish idiom or its literal paraphrase, their response was scored as correct and received 2 points. For example, a subject gave the following answer for the idiom *ser aguafiestas*: "A party-pooper, like the person who rains on your parade." A partially correct answer received a point value of one. Such answers were considered to be only partially correct because the subjects demonstrated that they understood the general idea or concept but were unable to give the exact match. For example, a participant offered the following answer for the idiom *soltar la lengua* ('to spill the beans'): "the opposite of holding your tongue; opening your mouth."

There were six main techniques identified based on the answers given by the L2 speakers. They are as follows:

1. Guessing from context/using contextual information

a. Guessing from/using global context

b. Focusing on a keyword/phrase from context

2. Idiomatic phrase-based strategy

a. Focusing on the literal meaning of the phrase

b. Focusing on a key word within the phrase

c. Discussing, paraphrasing, and analyzing the idiom

d. Connecting to other idioms: seems/ looks like/ sounds

3. Visualization

4. Use of conceptual metaphor

5. Pragmatic/world knowledge

6. Guessing in general

When the subjects focused on context as a way of figuring out the meaning of the unknown idiom, the strategy was named guessing from context. For example, a participant gave the following answer for the idiom voy *a meterme en camisa de once varas* (fig. 'to bite off more than one can chew') after s/he read the paragraph: "I've also never heard of this phrase before but from the context of the sentences in this little paragraph I'm thinking it means something like…like if this person tries to speak about what they are talking about…the music that *voy a meterme en camisa de once varas* they won't be able to…like they try to…they want to be able to explain it without…I don't know. They just won't be able to explain it clearly. Just like to get

in trouble, have trouble. Just the idea of like trying to explain something that you don't understand."

Furthermore, depending on the type of information that was helpful to the L2 speakers, the researcher distinguished two subcategories within the context-based strategy. The first one was guessing or using global context (same as the example above), and the second one was focusing on a key word within the context. For example, "I'm trying to pair it up with the word *enfurecerse* so it has to be some kind of an action of…I guess getting frustrated." The idiom in question was *dar (la) lata* (fig., 'to drive crazy').

The next strategy was idiom-based. In this case the L2 speakers used the unfamiliar idiom as a clue to figuring out its figurative meaning. I was able to distinguish four sub-strategies. The first sub-strategy zoomed in on the literal meaning of the idiomatic phrase. For example, "Just by the actual definition of the words *soltar* - to let something loose or to let go of something- y *la lengua* - tongue or when talking, to speak freely." The subject was referring to the idiom *soltar la lengua* (fig., 'to spill the beans'). The second sub-strategy focused on a key word within the phrase. For example, "the word *hilo*; when I think of *hilo* there is some kind of a bond or attachment between somebody or something." The subject was working with the idiom *tener el alma en un hilo*. The third sub-strategy involved discussing and analyzing the idiom. For example, a participant made the following comment regarding the idiom *hablar por los codos* (fig., 'to be a chatterbox'): "If you look at the *codos*, sort of up to here (pointing to the upper part of the body), so they are saying too much like they are being in an ocean or a pool of water and they are talking up to here (meaning too much)." The final idiom based sub-strategy was connecting to other idioms either in the L1 or the L2. For example, "*la lengua*…a lot of the

idioms that I have seen with the *lengua* have to do with speech, either not speaking or speaking."
The participant was referring to the idiom *soltar la lengua* (fig. 'to spill the beans').

The third main strategy was visualization. Several of the subjects reported that they were able to create an image of the idiom in their heads and that helped them understand the meaning of the idiomatic expression. For example, "*Andarse con rodeos* (fig. 'to beat around the bush')…for some reason it makes sense to me…Again I am very visual, I see him walking and almost doing circles, basically going in circles and not answering the questions directly."

The next main strategy involved the use of conceptual metaphor as a way of figuring out the idiomatic meaning of the word string which in this case was *tener la sarten por el mango* (fig., 'to call the shots'). For example, "Well we often associate hot things with, like, pressuring someone, so, like, a heated frying pan made me think of that."

The fifth strategy is using pragmatic knowledge or previous experience to understand the unfamiliar idiom. For example, "*Poner el casabel al gato* (fig. 'to bell the cat') sounds like… put a bell on a cat. It sounds really familiar from a fable I've heard in English a long time ago. […] I guess with the fable that I've heard I remember them putting a bell around the cat's neck so the people would know when the cat is coming."

The final strategy dealt with guessing in general when the subjects found the contextual and idiomatic information insufficient to help them figure out the meaning of the unknown phrase. For example, for the idiom *ser aguafiestas* (fig. 'to be a party-pooper') one subject made the following comment when s/he could not figure out the meaning of the idiom and did not find the contextual information helpful: "I am guessing maybe it has to do with being more conservative."

To sum up, in this chapter I outlined the rationale for the two experiments and posed the research questions. Afterwards, I discussed in detail the participants, procedure, data collection and scoring for the two types of experiments that were conducted for the dissertation. In the next chapter, I discuss and analyze the results from the two studies in detail.

CHAPTER 5

RESULTS AND DISCUSSION

In this chapter, I discuss the results from the two studies. First, I discuss the results from the fill in the blank task in general for both L2 learners and native speakers. After that, I present the analysis of the outcome for each of the 30 idioms used in the study by focusing first on the group that supplied the missing verb and then on the group that provided the missing noun. Afterward, I compare the results for the two groups of L2 learners. Lastly, the results of the native speakers who served as a control group are discussed. For the second study, following the analysis of the overall success rate for each idiom and a comparison of the two groups, I identify and present the analysis of the strategies employed by the L2 learners while working out the meaning of unknown idioms.

5.1. Experiment I: General Results

In the first study, eighteen advanced nonnative Spanish speakers and eight native Spanish speakers, who served as a control group, took the test. The participants were divided into two groups and asked to supply the missing word for each of the 25 idiomatic phrases given within context. The idioms were divided according to the syntactic and semantic (dis)similarity between English and Spanish, resulting in three categories: identical, similar, and different. The idioms were presented in random order so that the subjects were not made aware of the degree of similarity between the two languages. The first group of participants had to provide the missing verb; the second group, the missing noun. The division of the control group into two separate

groups was based on the participants' country of origin in order to have an even distribution of participants from the different countries in each group.

The L2 learners were more successful at providing the missing verb in comparison to supplying the missing noun, with a 61.9% and 54.5% accuracy level, respectively, which led to 58.2% overall success for the group. The native speaker control group, on the other hand, was more successful in providing the missing noun: 97.3% versus 96.3% for the verb, with an average overall success rate of 96.8% for both groups of native speakers. The results demonstrated that there is very little difference in the success rate of the native speakers regardless of which constituent they needed to provide, illustrating that the control group was very familiar with the idioms and able to produce them successfully. However, this was not the case with the L2 speakers. The group that had to supply the necessary noun was less successful than the group that needed to provide the missing verb. This outcome is likely due to the fact that the verbs used in the idiomatic phrases are much more frequent, and thus the L2 speakers are more likely to be familiar with them than with the specific nouns used in the word strings. Also, when the verbs were omitted, the remaining constituents provided the subjects with more useful content information, cluing in the subjects as to what the most fitting verb might be in each phrase. On the other hand, when the noun was omitted, the L2 speakers had more difficulty providing the necessary noun because the verbs did not always provide enough semantic information about the possible combination of a particular verb and a noun phrase to form an idiomatic string. As a result, the noun following the verb in the idiomatic phrases was judged to serve as a key word that helped the L2 speakers comprehend and produce successfully the correct idiom. Graph 5.1. displays the results for both groups of participants in the first study.

Graph 5.1 Overall Scores
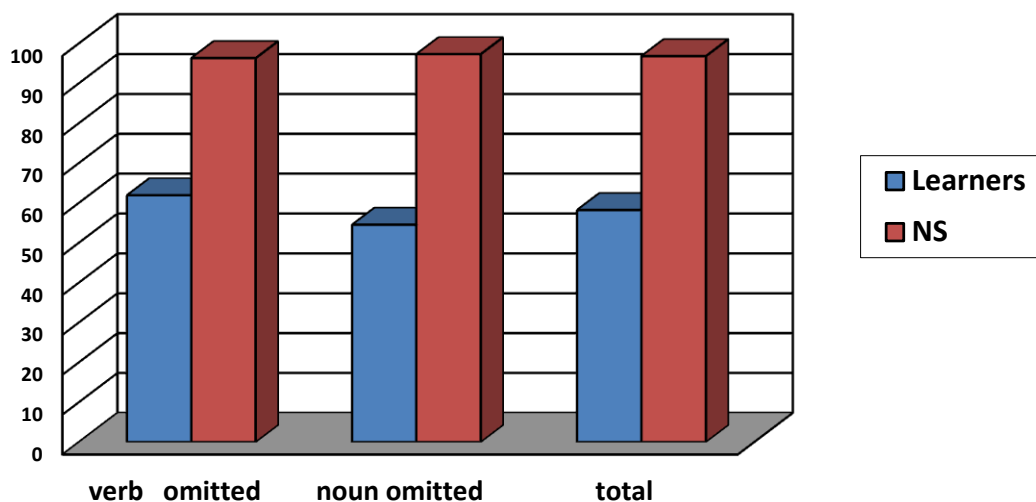
A T-test was performed to establish whether there was a statistically significant difference between the results from the overall success rates for two groups of learners in the fill-in-the-blank task. Graph 5.2 displays the means for each group and each type of idiomatic phrase and Table 5.1 shows the corresponding statistics. The analyses indicated that the differences between the verb and noun omitted tasks in the identical and similar idiom groups were not statistically significant. The P-value for the identical idioms group was P= 0.3702 and for the similar idioms was P = 0.5704. The only statistical difference in the performance between the two groups – the verb and the noun - was found in the different idioms (p ≤ 0.0204). The subjects had the most trouble providing the missing constituents when the idioms were different, even though the group that needed to supply the missing verb did better (54.5%) in general, in comparison with the group that needed to provide the missing noun, which on average was able to supply the correct answer only 39.6% of the time. A T-test was not performed for the Control groups because there was no variation as the majority of the native speakers' answers reached 100% or almost 100%.

Graph 5.2 Near-native Speakers Verb vs. Noun Scores
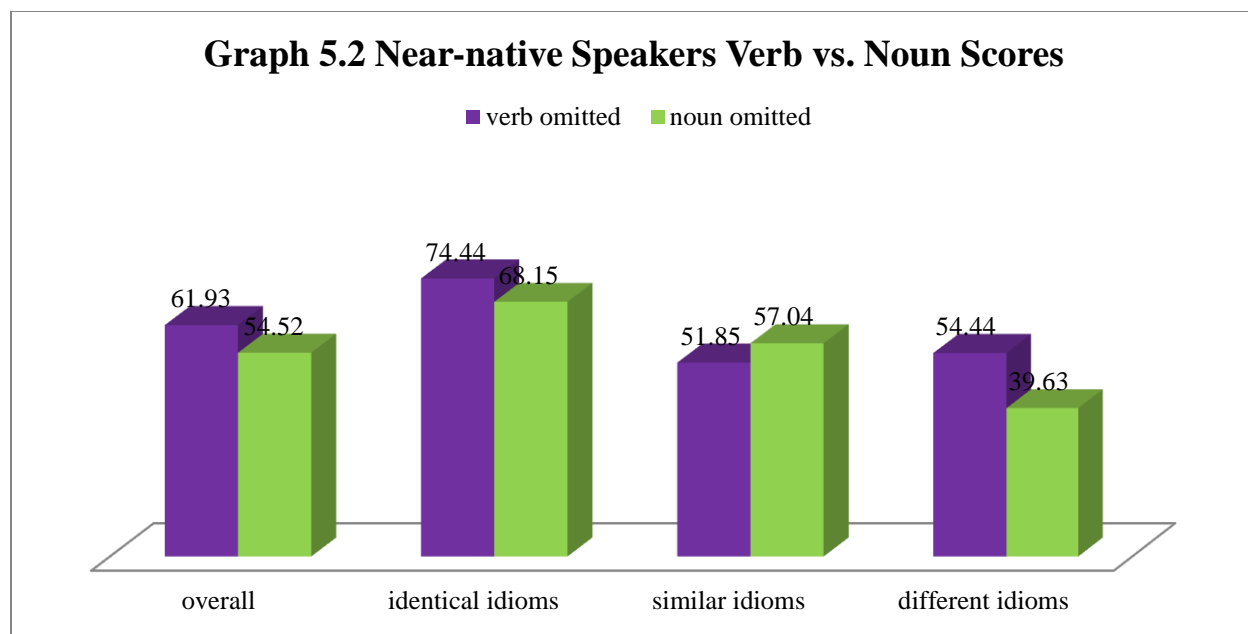
Table 5.1. Comparing Scores for Nouns and Verbs in Learners Groups

	DF	SD	Pr > t
Overall	16	10.98 (verbs) 11.46 (nouns)	0.1805
Identical Idioms	16	15.63 (verbs) 13.24 (nouns)	0.3702
Similar Idioms	16	15.91 (verbs) 21.63 (nouns)	0.5704
Different Idioms	16	13.02 (verbs) 11.63 (nouns)	0.0204*

5.2. General Results for Verb-Omitted Task

Nine learners and four native speakers completed the production task with the verb omitted. The following sections discuss the specific results, as well as some unexpected findings for both groups with some possible explanations. Graph 5.3 presents the overall results for the missing verb for the L2 learners and the control group.

Graph 5.3 Verb Omitted Overall Scores
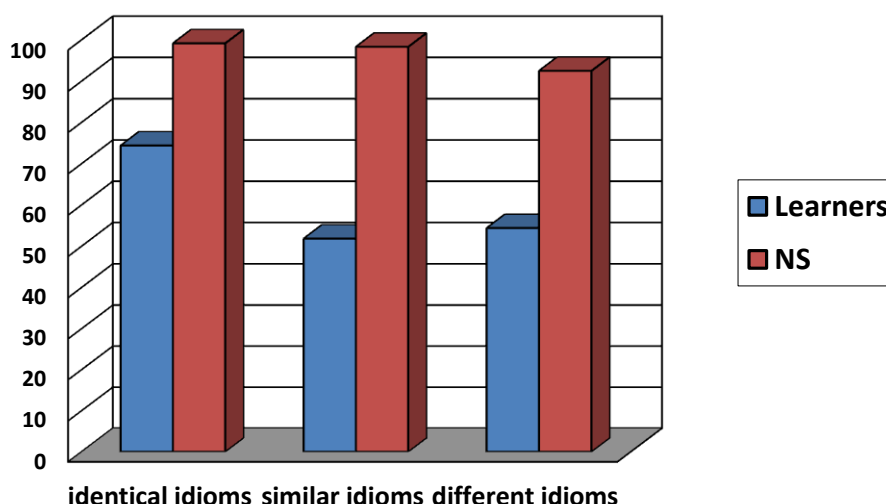
5.2.1. Learner Results

The L2 learners were able to produce correctly 74.4% of the identical idioms when the verb was omitted. Interestingly, however, they scored slightly better with the different idioms (54.4%) than with the similar ones (51.85%). This outcome was not unexpected because previous studies (e.g., Irujo 1986) also found that in discourse-completion tasks, subjects tended to get most interference from the L1 when the idioms were similar in the native and target languages because they have a difficult time managing the small differences between the idioms in the two languages. In addition, the participants were less likely to wait to see the literal translation and idiomatic equivalent in English when they had to produce the verb for the identical idioms. On the other hand, they relied much more on the literal translation of the individual words and their idiomatic equivalent in English when the subjects were faced with a different idiom. It is important to note that the participants understood the overall meaning of each phrase, either because they had encountered it before or from context. Nevertheless, they had considerably more difficulty providing the correct verb for idioms that were different, than

they had doing so for the identical ones. Another possible explanation for the learners' greater success in providing the verbs may be due to the high frequency and familiarity of these words, as L2 learners are exposed to them from the beginning of their L2 acquisition experience. Also, the majority of the verbs in question belong to the most productive verb group in Spanish, namely, the –ar ending group. The L2 learners needed to know only 17 very common verbs in order to correctly supply the missing word, such as *dar* 'to give', *romper* 'to break', *jugar* 'to play', *lavar* 'to wash', *echar* 'to throw', *mandar* 'to send', *tomar* 'to take', 'to drink', etc. Nevertheless, not all of the verbs are easy to translate into Spanish. For example, the English verb 'to throw' has several possible translations in Spanish: *lanzar, echar, tirar,* and *arrojar*. However, depending on the idiomatic phrase, only one or two of these verbs are acceptable options, e.g., *tirar/arrojar la toalla* (fig. 'to throw in the towel')—*lanzar* or *echar* are not acceptable options in this phrase. Another example is *echar/tirar la casa por la ventana*: *echar* and *tirar* are acceptable variants but not *lanzar* or *arrojar*. Yet another possible verb in this latter idiom is *botar* 'to boot' or 'to throw out/toss': *botar la casa por la ventana.* The non-native speaker is faced with the great burden of having to figure out which word combinations in the L2 will result in idiomatic expressions and which will not. As Fernando (1996:30) has pointed out, idioms' components vary only within very definable limits.

To sum up, the L2 speakers were able to make a positive transfer from the native language onto the target language when the idioms were identical but suffered the most interference with the similar ones because the idioms often differed semantically in the missing constituent, making it difficult to predict which verb was needed, unless the participants were already familiar with the phrase. The L2 speakers were more likely to rely on the literal translation of the idiomatic phrases when the idioms were different because of the semantic,

syntactic, and metaphorical dissimilarities between the two languages. Thus, they did not make use of L1 transfer. However, relying on translation as a strategy did not always guarantee a successful outcome, because some of the verbs could be translated into Spanish several different ways, prompting the subjects to guess at the most likely verb to complete the idiomatic phrase correctly.

5.2.2. Native Speaker Results

It should be noted that the purpose of the control group was to establish familiarity with frequent Spanish idioms since there is wide regional and dialectal variation. The control group, in comparison to the learners' group, was most successful at producing identical idioms (99.17%), followed by the similar ones (95.83%). They were least successful when asked to provide the correct verb in the different idioms, especially on the first attempt (92.5%). What lowered the score was confusion with another idiom, i.e., *meter la pata* (fig. 'to make a blunder') instead of *estirar la pata* (fig. 'to kick the bucket') or *honrar a la palabra* (fig.'to keep one's word') instead of *faltar a la palabra* (fig. 'not to keep one's word'). There were some instances in which the subjects gave the wrong answer but were able to provide the correct one on the second try. The lack of successful reproduction of the missing constituents was influenced by interference with other idioms rather than from lack of knowledge, as the case for the L2 speakers. In addition, the control group had more problems providing the missing verb in general due to greater regional variation that was not accounted for in the dictionaries and not due to any influence from English, although the majority of the Spanish native speakers had been residing in the US for a number of years. In order to remedy the situation and include the possible regional variation with different verbs, the native speakers were asked to perform a judgment task of acceptability of certain verbal variations that were given by their fellow participants. Out

of the eight participants, seven completed and returned the questionnaire (the complete list can

be found in appendix D). If the participants perceived the verb alternation as acceptable at least

43% of the time (or 3 out of 7 participants), the researcher recognized the particular verbal

variation as a possible one. For example: *echar/tirar la casa por la ventana* (lit. 'to throw the

house out of the window') also has an acceptable variation as *botar* 'to boot', 'to throw out/toss'

la *casa por al ventana* (fig. 'to paint the town red').

Another example of the verbal variation among the native speakers is regarding the

idiomatic expression *dar una mano* 'to give a hand,' which also accepts the verb *echar* 'to throw

a hand.' One native speaker used the variation, *tenderle la mano* (lit., 'extend the helping hand').

This variation was judged as interchangeable with *dar/echar una mano* by four out of seven

native speakers. In a personal conversation with two native speakers from the same country, the

researcher found that those particular native speakers distinguish between the two idioms. They

consider *echar/dar una mano* to require tangible help, such as helping move furniture, whereas

tenderle la mano (a alguien) implies a more intangible type of help, such as emotional support.

In conclusion, the native speakers demonstrated that they were very familiar with the

particular group of idioms, resulting in an overall success rate of 97%. The unsuccessful

production of the correct verb on the first attempt in general was due to interference from other

idioms rather than lack of familiarity. The native speakers have the idioms stored in their mental

lexicon as long words that can be triggered by recognition of a key word that evokes the most

salient idiomatic phrase to complete the word string, which in some instances caused them to

confuse one idiom with another. The disambiguation occurred once they paid more attention to

the context. An additional finding, although unexpected, was that there is a greater regional

variation for the verbs in the idiomatic expressions than was accounted for in the dictionaries.

5.3. General Results for Noun-Omitted Task

The second group also consisted of nine L2 learners and four native speakers. Their task was to supply the missing noun from the 25 idiomatic phrases embedded within context. Twenty of those idiomatic phrases were the same as those used in the fill in the blank missing verb exercise; these were the identical and different idioms. The other five idiomatic phrases belonged to the similar idioms group; these were different from the previous exercise, chosen to differ only in one of the complements, either the verb phrase (VP) or the noun phrase (NP), from their English counterparts. For the idioms that differed in the noun phrase, the main noun was omitted. A sample idiom from this group is *costar un ojo de la cara* (lit., 'to cost an eye from the face', fig., 'to cost an arm and a leg'). The verb is identical in both languages, but the complement is different in Spanish. Graph 5.4 shows the overall results for this task.

Graph 5.4 Noun Omitted Overall Scores
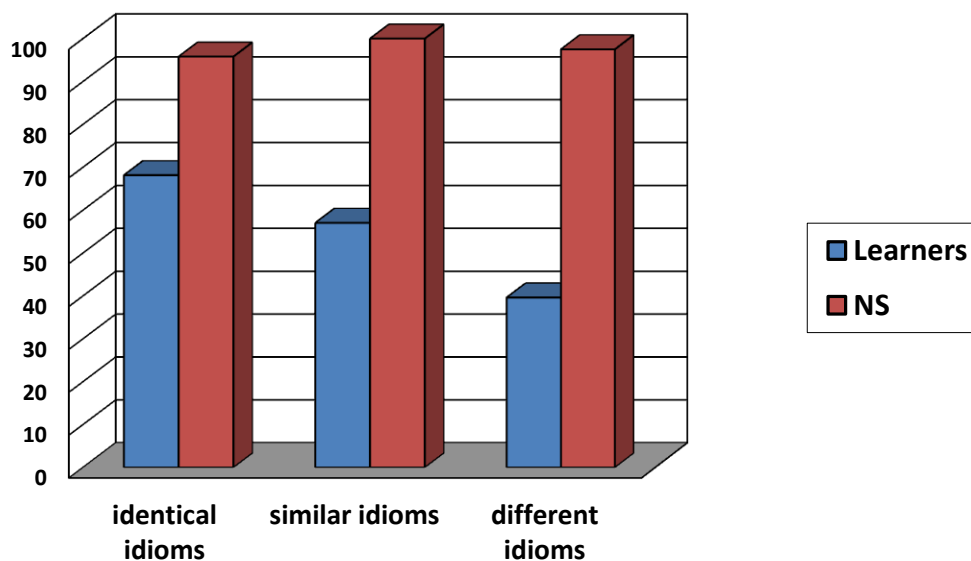
5.3.1. Learner Results

The subjects were able to supply the correct missing nouns in the identical idioms 68.15% of the time, and 57.04% of the time in similar idioms. Not surprisingly, the different

idioms presented the L2 speakers with the most difficulty: the success rate for this category was only 39.6%. The low success rate can be attributed to the lack of similarity between the idiomatic phrases in the L2 and L1. As a result, the participants relied heavily on translation from the literal meaning of the individual constituents. However, the translation did not always aid in providing the correct noun, because the words in question can be translated several different ways in Spanish, and the subjects were not certain which of the possibilities was the correct word. For example, in the literal translation of the idiomatic expression 'to throw wood to the fire' (fig.,'to add fuel to the fire') the word *wood* can be translated into Spanish several different ways; *madera, leña, leño*. *Madera* is the most common collective word and is introduced at the beginners' levels of Spanish, so it is encountered more frequently than the others throughout the different levels of L2 acquisition. Nevertheless, the word that is necessary to complete the idiomatic phrase is *leña* (*echar leña al fuego*). As this particular word is not as frequent as *madera*, it is more difficult to rely on the literal English translation. Another possible variation for the word 'wood' is *leno*, 'log.' Although *leña* and *leño* differ only in gender, they do not have the same meaning, and therefore cannot be used interchangeably even though this may seem plausible from the L2 learner's perspective. Another reason for the lower success in providing the missing noun could be word frequency. The nouns themselves appear less frequently compared to the verbs the other group had to supply.

To conclude, it was more difficult for the L2 speakers to supply the missing noun than to supply the missing verb. However, when the idioms were identical in the native and target languages, the advantage of the missing verb was greatly diminished. The greater success of correctly producing the necessary constituent was aided by the idioms' identical nature, making it easy for the learners to take advantage of the positive transfer from L1 onto the L2 and supply

the needed word, either the verb or the noun. Another reason for the successful production of the missing constituents could be that the identical idioms contained verbs and nouns that were more frequent, especially in comparison to the similar and different nouns. On the other hand, the low score on the different nouns might be due to the fact that L2 speakers may not be used to seeing those particular word combinations and thus might not be aware of how to group the words within the idiomatic phrases, especially when the noun was missing, although this applied to the verb as well. Also, because those phrases are dissimilar in the two languages, the subjects were not able to use their L1 knowledge and were forced to rely on the literal translation of the constituents, which, as was mentioned earlier, did not always lead to a successful reproduction of the necessary word.

5.3.2. Native Speaker Results

The native speakers, on the other hand, scored better across all three categories resulting in a 100% success rate with the similar idioms, 97.5% success with the different idioms, and finally, 95.8% success with the identical ones. It is interesting to note that the native speakers did not offer any regional variations for the nouns (as they did for the verbs) that differed from the dictionary forms and were able to provide the correct answer on the first try with very few exceptions. On the whole, it was more challenging for the native speakers to provide the necessary verb for the idiomatic expressions than the noun, which is more likely due to regional variation and possible different interpretations of the idioms. On the other hand, the L2 speakers had a greater difficulty supplying the necessary noun but found it easier to provide the verbs.

5.4. Production of Idioms with the Verb Omitted

In this section I discuss the results from the omitted verbs across the three types of

idioms. First, I analyze the success rate for the L2 learners and afterwards; I discuss the results

from the control group and provide possible explanations for the results.

Table 5.2. Production of Idioms with Verb Omitted

L2 Learners Verb Omitted	NS Verb Omitted
Identical	**Identical**
1. *Romper* el hielo. 100%	1. *Romper* el hielo. 100%
2. *Buscar/encontrar* una aguja en un pajar. 88.9%	2. *Buscar/encontrar* una aguja en un pajar. 100%
3. *Tener*lo en la punta de la lengua. 81.5%	3. *Tener*lo en la punta de la lengua. 100%
4. *Lavar*se las manos. 81.5%	4. *Lavar*se las manos. 100%
5. *Arrojar*/*tirar* la primera piedra. 77.8%	5. *Arrojar/tirar* la primera piedra. 100%
6. *Jugar* con fuego. 74.7%	6. *Jugar* con fuego. 100%
7. *Tirar/arrojar* la toalla/esponja. 70.4%	7. *Tirar/arrojar* la toalla/esponja. 100%
8. *Dar* luz verde. 66.7%	8. *Dar* luz verde. 100%
9. *Morder*se la lengua. 48.1%	9. *Morderse/amarrar*(se) la lengua. 100%
10. *Meter* las narices. 44.4%	10. *Meter* las narices. 91.7%
Similar	**Similar**
1. *Echar*/*dar* una mano. 100%	1. *Dar/echar* una mano
2. *Mandar* al infierno. 88.9%	(tenderle la/una mano) 100%
3. *Faltar* a la palabra. 33.3%	2. *Mandar* al infierno. 100%
4. *Faltar*le un tornillo. 29.6%	3. *Faltar* a la palabra. 91.7%
5. *Dar* en el clavo. 11.1 %	4. *Faltar*le un tornillo. 100%
	5. *Dar* en el clavo. 100%
Different	**Different**
1.No *tener* pelos en la lengua. 88.9%	1. No *tener* pelos en la lengua. 100%
2. *Echar/tirar* la casa por la ventana. 77.8%	2. *Echar/tirar/botar* la casa por la ventana. 100%
3. *Poner* el grito en el cielo. 74.7%	3. *Poner/dar/pegar* el grito en el cielo. 100%
4. *Poner/levantar* por las nubes. 70.4%	4. *Poner/levantar/echar* por las nubes. 100%
5. *Estar* hasta la coronilla. 59.3%	5. *Estar/ tener/sentir*se hasta la coronilla. 100%
6. *Tomar*le el pelo. 51.9%	6. *Tomar*le el pelo. 100%
7. *Hacer* buenas migas. 44.4%	7. *Hacer* buenas migas. 91.7%
8. *Dar/pasar* gato por liebre. 37.03%	8. *Da /pasar* gato por liebre. 100%
9. No *dar* el brazo a torcer. 22.2%	9. No *dar* el brazo a torcer. 91.7%
10. *Estirar* la pata. 18.5%	10. *Estirar* la pata. 83.3%

5.4.1. Verb Omitted in Identical Idioms

As can be seen from table 5.1, the L2 learners were able to produce the verb *romper* 'to break' on the first attempt without any help, suggesting that they were either familiar with the idiomatic expression or they were able to transfer their knowledge successfully from the L1 onto the L2. *Buscar una aguja en un pajar* (fig., 'to look for a needle in a haystack') is the second least problematic identical idiom for the L2 learners. Although all of the participants supplied the verb *buscar* 'to look for' at various stages, four of the subjects used *encontrar* 'to find' as a possible variation of the idiom. As it happens, the idiom accepts the variation with *buscar*/*encontrar* 'to look for'/'to find.' These two idioms were easiest to produce due to positive L1 transfer. Both idioms are very common in English and have exact translations in Spanish.

The third most successfully produced idiom when the verb was missing was *tenerlo en la punta de la lengua* (fig., 'to have it on the tip of one's tongue'). Six out of the nine participants supplied the verb *tener* 'to have' on the first attempt. One provided the verb on the second effort, and the last two on the third, once they saw the literal translation and the figurative equivalent in English. Given that the idioms are identical and allow for only one possible verb, the subjects were able to translate the verb 'to have' into Spanish without a problem. It seems that the three subjects who did not provide the answer on the first try did not rely on their knowledge from the L1 but rather guessed the possible verb that might be the best fit for this idiom, because they used verbs such as *poner* 'to put', *perder* 'to lose', *encontrar* 'to find', and *dejar* 'to allow' or 'to leave', suggesting that they did not treat this verb as an identical one.

The next idiomatic phrase, *lavarse las manos* (fig., 'to wash one's hands [of something]'), like the previous phrase, saw the same success rate of 81.5%. Here, however, two

of the participants showed interference with another idiom *dar/echar una mano* (fig., 'to give'/ 'lend' a hand') which can be interpreted either as identical or similar depending on which verb is used. It is important to mention that the idiom *dar/echar una mano* always uses the noun and the article that precedes it in singular form, i.e., *una mano*. Two of the participants did not seem to have paid much attention to the reflexive pronoun *se* given at the end of the verb in the idiomatic phrase. Only the reflexive form of the verb could complete the idiom; otherwise the word string has the literal interpretation of 'to shake hands' and is not used figuratively, nor was it fitting according to context.

The verb for the fifth-easiest phrase to produce from the identical expressions was *arrojar/tirar la primera piedra* (fig., 'to throw/cast the first stone'). Once more, six out of the nine participants reproduced the correct verb on the first attempt. In addition, all six of them used the verb *tirar* to complete the idiomatic phrase, although *arrojar* was another acceptable option for this particular phrase. Two of the three subjects used other verbs that can also be translated as 'to cast'/'throw', *echar* and *lanzar*, which are not acceptable options for the idiomatic phrase.

The verbs that were most difficult to produce in the identical idioms can be found in the following phrases: *meter las narices, morderse la lengua,* and *dar luz verde*. The subjects were able to provide the correct verb only 44.4% of the time for the first idiom. They did slightly better with *morderse la lengua*, with 48.1% success, and best of these three was *dar luz verde*, scoring 66.7%.

Four of the L2 learners used *poner* 'to put in' instead of the verb *meter* 'to put' in trying to solve the *meter las narices* question. There are two possible explanations for this. First, there are two acceptable verbs for this expression in English (fig., 'to put/ stick your nose in it [i.e., where it does not belong]'), and the L2 learners could have been transferring their knowledge

from the L1 onto the L2, due to negative transfer. Second, it is possible that some participants were not aware of the use of *meter* to mean 'to put in.' Two out of the nine subjects were able to provide *meter* on the first try, two others on the second attempt, and two more on the third try.

The next idiomatic phrase was *jugar con fuego*. Five out of the nine subjects provided the correct verb from the first try. Although this expression has an exact equivalent in English, three of the participants were unable to provide the needed verb until they saw the literal translation of the idiomatic phrase, suggesting that they did not treat this idiom as an identical one.

Tirar/arrojar la toalla/esponja received a score of 70% or higher. The main problem the L2 learners had with this idiom was choosing the appropriate verb to express the action of throwing in Spanish. Only five out of the nine participants provided one of the acceptable verbs on the first attempt. Three used *echar*, which is not a possible variation for this idiom. Eventually all but one participant provided the verb *tirar* for this phrase.

The next group of identical idioms proved to be difficult to produce by the L2 speakers. *Morderse la lengua* prompted six out of the nine subjects to resort to translation of the literal meaning of the verb on the third try. One other participant provided the correct verb on the first attempt, and the last two participants did so on the second endeavor. Nevertheless, from their efforts, it is apparent that they understood the underlying metaphor of the idiom ('to refrain oneself from speaking'). However, once again they were not sure what the appropriate verb would be for this identical idiomatic phrase. For example, the subjects gave as possible verb choices *callar* 'be quiet'/'silent', *parar* 'to stop', *trabar* 'to fasten'/ 'to get stuck', *aguardar* 'to guard', *tragar* 'to swallow.' Their answers indicate they did not treat this idiom as an identical one.

Dar luz verde is the next idiom that was problematic in terms of providing the necessary verb. Although all of the participants eventually provided the correct verb, they did so in various stages. Four of the nine subjects gave the correct answer on the first attempt, one on the second try, and the other four saw the translation before they provided the answer. It was surprising to find this idiom to be problematic, because it is a very frequent idiom in both languages. Also, it was interesting to note that one of the subjects also added the definite article *la* right after the verb, resulting in *dar la luz verde* ('to give *the* green light'). In this case, the particular participant transferred his/her knowledge of the idiom from the L1 once he/she recognized the idiomatic phrase from the literal translation in the third attempt, although it resulted in a negative transfer because the Spanish equivalent of the phrase does not accept an article.

To sum up, the learners were most successful in the production of the identical idioms when it came to providing the necessary verbs for this group. It became obvious that transfer from the L1 played an important role as a strategy in supplying the necessary verb in the fill in the blank task with the identical idioms. Positive transfer was possible on two levels, first on a phrase level (i.e., the idiomatic phrase was well known to the L2 learners in their L1) and then on a word level (i.e., they were able to provide the necessary verb), especially when there was a one-to-one translation from the L1 onto the target language. Because of that, they were able to provide the correct verbs for phrases such as *romper el hielo* (fig., 'to break the ice') and *buscar/encontrar una aguja en un pajar* (fig., 'to look for/to find a needle in a haystack') with great success, usually on the first attempt. On the other hand, I hypothesize that when the identical idiomatic phrase was not as salient in the learner's mental lexicon, he/she had more difficulty supplying the correct verb, either because the learner did not acknowledge that the same phrase exists in both languages or because he/she did not know which verb would best

complete the phrase. The level of familiarity with the specific verbs needed to complete the idiomatic phrases also influenced L1 transfer. When the L2 learners did not know the exact equivalent of the verb in question in Spanish, they looked for verbs that were semantically similar to the target one. For example, for the phrase *morderse la lengua* (fig., 'to bite one's tongue'), the learners did not treat the idiomatic expression as an identical one and provided a variety of possible answers to fill in the blank, all of which were related semantically to the underlying metaphor of not speaking. This indicates that the participants chose to write the most salient semantically related verb because they are most familiar with it and are likely to recall it quickly, even if that resulted in a negative transfer. In the next section, I analyze each of the similar idioms and offer explanations for the difference in success rate for this type of idioms.

5.4.2. Verb Omitted in Similar Idioms

The five similar idioms in this section have different verbal complements in the L1 and L2, but the rest of the constituents in each phrase are identical in both languages. The two most successfully produced similar idioms are *echar/dar una mano* and *mandar al infierno*. Although *echar/dar una mano* was produced correctly 100% of the time, it needs to be noted that a majority of the participants, five out of nine, chose to use the verb *dar* 'to give' to complete the expression, making it identical to the one in English 'to give a hand.' One can speculate that the verb *dar* was preferred because of its exact match with the English 'to give,' allowing for positive transfer between the L1 and L2. Nevertheless, the verb that was needed to complete the phrase was *echar* 'to throw,' making the idiomatic expression similar to the one in English. Nonetheless, both variations are acceptable in Spanish. English, too, allows for verb variation in this particular idiomatic phrase: 'give/lend a hand.'

The similar idiom *mandar al infierno* allowed for fairly easy reproduction of the needed verb. Only one of the participants saw the literal translation of the verb *mandar* 'send' but wrote *ir* 'to go' as a possible option to complete the expression. It seems that the subject chose to use the verb from the English expression 'to go to hell,' resulting in negative transfer between the L1 and L2. The other participant who did not provide the correct answer from the first try chose to use the verb *meter* 'to put' before supplying *mandar* on the second try.

The next three idioms discussed here were the most problematic to produce from this category. Two phrases use the same verb, *faltar* 'to be missing' or 'to lack (something).' For the expression *faltarle un tornillo* (fig., 'to have a screw loose'), five of the subjects provided the necessary verb, although three of them waited to see the translation before they gave their final answer. Three other subjects were not able to translate the verb from English correctly; they used *perder* 'to lose' instead of *faltar*, which resulted in an incorrect answer. *Faltar a la palabra* (fig., 'not to keep one's word'), on the other hand, had the verb *faltar* translated as 'to lack (something).' This translation proved to be more helpful to the subjects, as all of them resorted to consulting the literal translation of the verb before their final attempt to provide the necessary verb. All of them were able translate the verb correctly as *faltar*. Although this idiom was difficult to reproduce, the subjects understood the underlying metaphor of keeping one's promise, and because of that, they used verbs related to that idea such as *recordar* 'to remember', *cumplir* 'to fulfill', *guardar* 'to guard', *romper* 'to break.'

Among the similar idioms, *dar en el clavo* was the most difficult to produce. Only one participant knew the idiomatic expression. The rest of the subjects relied heavily on being able to see the literal translation of the phrase. However, they were unsuccessful in producing the necessary verb, as this particular expression (along with two others) was designated to test the

subjects' dependence on seeing the literal translation of the verb. For this purpose, the participants saw the idiomatic equivalent of the phrase in English, i.e. 'to hit the nail (on the head'), instead of being given the literal translation of the verb *dar* 'to give.' It seems that because the subjects had the option to see the literal meaning of the verb before their final attempt, they relied heavily on that opportunity as a way of providing the necessary verb.

The verbs in the similar idioms in general were more difficult to reproduce because they were different in the two languages but the rest of the constituents were identical. As a result, the L2 speakers experienced more interference from the L1 when they tried to reproduce the missing words. However, when the idiomatic phrase was highly familiar in both L1 and L2 and also accepted an alternative verb that was identical in both languages, the L2 speakers were able to supply the missing verb correctly. However, when the differences between the idiomatic phrases interfered with the successful production of the verbs, the learners resorted to translation as a way of providing the correct word. Nevertheless, translation on its own as a strategy did not always guarantee a successful outcome, because the participants often attempted to supply a semantically relevant verb that was more salient in their mind than the verb required to complete the idiom. In the next section, I analyze the outcome for each of the different verbs and then offer explanations for the different strategies the L1 learners used when supplying the missing verbs.

5.4.3. Verb Omitted in Different Idioms

The L2 learners were most successful in providing the verb *tener* on the first try in the expression *no tener pelos en la lengua* (fig., 'not to mince words'). Of the two participants who did not supply the verb in the first version of the idiomatic expression, one provided it on the second try, and one saw the literal meaning and translated the verb correctly.

The second expression from the group of different idioms that was easiest to complete

was *echar/tirar la casa por la ventana* (fig., 'to paint the town red'). Six out of the nine participants gave the correct verb, either *tirar* or *echar*, on the first try. One of the subjects used *tumbar*, but this verb means 'to knock down' rather than to throw. Another participant chose to use *lanzar* 'to launch'/ 'to throw' after he/she saw the literal translation of the verb. Unfortunately, this is not an acceptable verb variation for this expression.

Poner el grito en el cielo (fig., 'to pitch a fit') had the third easiest verb to produce within the expression. Originally the dictionaries that the researcher consulted showed only the verb *poner* with this expression, however, the control group also produced as possible variants the verbs *echar* and *dar*. The researcher accepted the control group's variants as possible answers and assigned the higher score if *echar* or *dar* was used on the first or second try.

The next idiom in this group is *poner/levantar por las nubes* (fig., 'to praise someone to the skies'). Here again a possible variation with *echar* 'to throw' was also acceptable. The L2 learners understood the general idea of glorifying somebody, or placing them in the skies, but were not sure which of the verbs would best fit the expression. They attempted to use *subir* 'to go up', *colocar* 'to put'/ 'place', *tirar* 'to throw'/ 'to pull', *volar* 'to fly', *apoyar* 'to support', all of which are verbs that convey the general idea of lifting, transporting or moving (somebody).

Estar/tener (IOP) hasta la coronilla is the last of the group of different idioms for which participants found it easier to produce the correct verb. Four out of the nine subjects were able to provide the necessary verb, either *estar* or *tener*. One of the subjects gave the adjective *harto* 'fed up with' as a possible answer because there is another expression that communicates the same idea of being annoyed with something or somebody, and it is also used with the verb *estar*, i.e., *estar harto* 'to be fed up.' However, all of the answers that the subjects from this group needed to provide were verbs, so *harto* was not an acceptable option for this idiomatic

expression. Another participant used the verb *hartar* 'to annoy,' which has the same idea as the idiomatic expression, but it is used only literally instead of as an idiom. Four of the subjects saw the literal meaning of the verb before providing a suitable translation for it.

The most difficult verb to provide from this group of idioms was *estirar* for the idiom *estirar la pata* (lit., 'to stretch the 'leg'/ 'paw', fig., 'to kick the bucket'). This verb was problematic because four of the subjects provided the verb *meter* 'to put' instead of *estirar*, changing the meaning of the idiomatic expression to 'to put one's foot in his/her mouth.' It is likely that they chose this verb because the expression *meter la pata* is more colloquial than the expression *estirar la pata*, allowing the L2 learners to encounter it in a wider variety of contexts and situations. *Meter la pata* appears 158 times in the corpus versus 19 occurrences for *estirar la pata*. The search for frequencies of the two phrases included the infinitive forms of the two verbs along with their conjugations in present tense as well as preterit and imperfect tenses. Because of its higher frequency, it is more likely that the subjects have the expression meter *la pata* preserved in their mental lexicon as one long word that is triggered by a key word, which in this case is *la pata*.

The next troublesome expression is *dar/pasar gato por liebre* (fig., 'to sell a pig in a poke'). All but one of the participants relied on the literal translation given in the third version of the idiomatic expression. Once they saw the meaning of the verb in English, they were able to successfully translate it into Spanish as *dar*.

Hacer buenas migas (fig., 'to hit it off') was another idiom with a difficult to reproduce verb. Three of the subjects were able to supply the necessary verb without resorting to translation. However, the rest of the group translated the verb successfully four out of five times.

Tomarle el pelo was another problematic idiom, although this one is much more common

in colloquial Spanish discourse. Three of the subjects gave the correct idiom on the first attempt, and five relied on the translation. It is interesting to note that they were relying on their L1 to figure out the correct verb; many of them used verbs such as *sacar* 'to take out', *tirar* 'to throw', *jalar* 'to pull', *empujar* 'to push'—all of which are close to expressing the concept of pulling (one's leg), the equivalent expression in English.

No dar el brazo a torcer will be discussed in a separate section because it is often translated in the dictionaries as a different idiom although the underlying metaphor is identical in both languages.

Several factors affected the production of the correct missing verbs in the different idioms. Since the idioms were different in both the native and target languages, the L2 speakers did not rely on L1 transfer, rather they preferred to use translation as a strategy. However, the translation was not a successful strategy because the verbs are different in the two languages; for example, *tomar(le)* 'to take' in Spanish vs 'pull' in English. In general, if the L2 learners were not familiar with the idiom, they relied mainly on translation as a way of providing the necessary verb. This strategy was used much more often when the idioms were different in comparison with the other two types. The learners, in general, were successful at providing the correct verb once they saw the translation, both because the majority of the verbs did not have multiple translations in Spanish and because they were very frequent words in Spanish. It is interesting to note that some L2 speakers experienced interference with other idioms in the L2. For example, when the verb was omitted, they confused the idioms *meter la pata* 'to stick one's foot in one's mouth' with *estirar la pata* 'to kick the bucket.' In this case, the learners and the native speakers acted in a similar manner, because the native speakers, too, confused the two idioms when the verb was removed, regardless of context. This misinterpretation of the idioms was more likely

due to the fact that *meter la pata* is a common idiom used in a wide variety of contexts, whereas the colloquial *estiar la pata* is not frequently used in everyday discourse. As a result, the subjects are more likely to associate the key word *pata* with *meter* rather than with *estirar* even when context is present. In the next section, I review the success rates for the three types of idioms when the other half of the participants, both learners and native speakers, had to provide the missing nouns for the 25 idioms.

5.5. Production of Idioms with the Noun Omitted

The other nine learners formed part of the test group along with the remaining four native speakers, who served as a control group for this task. Twenty of the idioms from the identical and different groups were reused with the same context. The only difference was that now the missing word was the noun instead of the verb at the beginning of the idiomatic phrase. The other five idioms were new because they belonged to the similar group of idiomatic expressions. This time, the verbs were identical in both languages but the noun phrases and/or the prepositional phrases were different. The subjects were asked to supply the missing nouns from those phrases. For example, in the similar idiomatic phrase *costar un ojo de la cara* (lit. 'to cost an eye from the face,' fig., 'to cost an arm and a leg') the noun *ojo* would be removed. Table 5.2 demonstrates the overall success rates of the idiomatic expressions when supplying the missing noun produced by the learners and native speakers.

Table 5.3 Production of Idioms with Noun Omitted

L2 Speakers Noun Omitted	NS Noun Omitted
Identical	**Identical**
1. Lavarse las *manos.* 96.3%	1. Lavarse las *manos*. 100%.
2. Romper el *hielo.* 92.6 %	2. Romper el *hielo*. 100%
3. Jugar con *fuego*. 85.1%	3. Jugar con *fuego*. 100%
4. Dar *luz* verde. 70.3%	4. Dar luz *verde*. 100%
5. Tenerlo en la *punta* de la lengua. 66.7%	5. Tenerlo en la *punta* de la lengua. 100%
6. Buscar una *aguja* en un pajar. 62.9%	6. Buscar una *aguja* en un pajar. 100%
7. Arrojar la primera *piedra*. 62.9%	7. Arrojar/tirar la primera *piedra*. 100%
8. Morderse la *lengua*. 55.6%	8. Morderse la *lengua*. 100%
9. Meter las *narices*. 51.9%	9. Meter las *narices*. 91.7%
10. Tirar/arrojar la *toalla/esponja*. 40.7%	10. Tirar/arrojar la *toalla/esponja*. 66.7%
Similar	**Similar**
1. Meter la *pata.* 88.9%	1. Meter la *pata*. 100%
2. Costar un *ojo* de la cara. 85.1%	2. Costar un *ojo* de la cara. 100%
3. Me levanto con el *pie* izquierdo. 62.9%	3. Me levanto con el *pie* izquierdo. 100%
4. Echar *leña* al fuego. 25.9%	4. Echar *leña* al fuego. 100%
5. Llover a *cántaros/mares*. 22.2%	5. Llover a *cántaros*. 100%
Different	**Different**
1. Tomarle el *pelo*. 74.07%	1. Tomarle el *pelo*. 100%
2. No dar el *brazo* a torcer.70.3%	2. No dar el *brazo* a torcer. 100%
3. No tener *pelos* en la lengua. 48.1%	3. No tener *pelos* en la lengua. 100%
4. Dar/pasar *gato* por liebre. 40.7%	4. Dar/pasar *gato* por liebre. 100%
5. Poner el *grito* en el cielo. 37.03%	5. Poner el *grito* en el cielo. 100%
6. Poner/ levantar por las *nubes*. 37.03%	6. Poner/levantar por las *nubes*. 100%
7. Echar/tirar la *casa* por la ventana. 33.2%	7. Echar/tirar la *casa* por la ventana. 100%
8. Estar hasta la *coronilla/nariz/madre*. 25.9%	8. Estar hasta la *coronilla/nariz/madre*. 100%
9. Estirar la *pata*. 22.2%	9. Estirar la *pata*. 100%
10. Hacer buenas *migas*. 7.4%	10.Hacer buenas *migas*. 75%

5.5.1. Noun Omitted in Identical Idioms

Although the L2 learners did not reach a 100% success rate when providing the missing

nouns from the idioms like the native speakers, they were still successful in supplying the correct

word, in particular with the identical idioms. The problem that L2 learners faced, however, was

that there were multiple ways to translate a particular noun from English into Spanish, causing the non-native speakers to provide a greater number and wider variety of unacceptable substitutions for the missing constituents, which could also be caused due to lack of familiarity with the Spanish idiom or due to interference from the L1.

From the group of the identical idioms, the L2 learners were most successful in providing the missing noun in the following idioms: *lavarse las manos* (fig.,'to wash one's hands'); *romper el hielo* (fig.,'to break the ice'); *jugar con fuego* (fig., 'to play with fire'); *dar luz verde* (fig., 'to give the green light'); *tenerlo en la punta de la lengua* (fig., 'to have it on the tip of one's tongue'). All but one of the subjects was able to provide the necessary noun, *manos*, on the first try, resulting in a 96.3% success rate. The other participant was able to supply the noun on the second attempt once he/she read the embedded idiom given in richer context. *Romper el hielo* was the second idiom with the highest success in supplying the correct noun, *hielo* 'ice' 92% of the time. Only one subject resorted to reading the literal translation of the constituents before providing the correct answer on the third attempt.

The next idiom in this group was *jugar con fuego*. Of the two subjects who waited to read the literal translation of the idiom, one tried to infer the meaning of the idiomatic phrase from the context, so the first two attempts to provide the necessary noun, *fuego* 'fire,' were influenced directly by the context. The participant wrote *miradas* 'glances' and *ojos* 'eyes' because these two words were either used in the paragraph or were closely related to the context. The other subject did not even venture a guess. He/she simply typed a letter (since it was necessary to type something in order to advance) until he/she was able to see the literal translation of the idiom and provide the necessary noun. The subjects gave the correct answer 70% of the time for the fourth idiom. Four out of the nine participants supplied the noun *luz*

'light' on the first attempt, one other participant on the second try, and the rest waited to see the literal translation in order to supply the necessary noun. Again, the subjects who were not able to provide the correct answer immediately made use of the extra information given in the other versions of the idiom. It is clear that the responses given were influenced by the contextual information surrounding the idiomatic phrase because they were related to the main idea in the paragraph. For example, the paragraph was about a political project that would impact the lives of millions in Europe once enforced. By extension, some of the answers included nouns such as *papel* 'paper' and *dinero* 'money.'

The final idiom in this group was *tenerlo en la punta de la lengua*. Six out of the nine subjects provided the noun *punta* on the first try. The other two participants, both linguistics students, were influenced by their knowledge of linguistic jargon and provided a noun based on that knowledge — *ápice* — which is translated the same way as *punta* in English, i.e., 'tip' (of the tongue) but has a much more restricted use in Spanish. The final participant wrote *pica*. Given that he/she is also a linguistics student, it could be assumed that he/she also tried to produce the word *ápice* instead of *punta*. However, the word *pica* also exists, and it is possible that the subject was simply guessing.

The five most difficult nouns to reproduce belong to the following idiomatic phrases: *tirar/arrojar la toalla/esponja,* fig., 'to throw in the towel/sponge' (40.7%); *meter las narices,* fig., 'to stick your nose' (51.9%); *morderse la lengua* fig., 'to bite your tongue' (55.6%); *arrojar la primera piedra,* fig., 'to cast the first stone' (62.9%); and *buscar una aguja en un pajar,* fig., 'to look for a needle in a haystack' (62.9%).

Tirar/arrojar la toalla/esponja turned out to be the idiomatic phrase with the most difficult noun to produce even though there is an exact match in English. Only one subject

recognized the idiom and provided the necessary noun. The rest of the participants waited to see

the literal translation of the noun, on their third attempt, before they were able to provide the

correct answer for this phrase, which accepted both *towel* and *sponge* as possible variants for this

word string. Three of the participants chose to write *esponja* and the other six wrote *toalla* as

answers.

The second most difficult noun belongs to the phrase *meterse las narices*. This is one of

the very few phrases considered to be identical in English and Spanish (according to Irujo 1986),

although the noun phrase is plural in Spanish and singular in English. However, to account for

this discrepancy, the researcher included the definite article *las* as a clue for the L2 learners that

they needed to provide a plural noun. Nevertheless, plurality was not what caused the low

success rate in providing the correct missing noun. Rather, a majority of the participants

confused *meter las narices* with *meter las manos* and *meter la(s) pata(s)*. The confusion

probably stemmed from the fact that both idioms, *meter las narices* and *meter la mano* refer to

the same idea of intruding into another person's affairs. However, the subjects chose to use the

noun *mano* more likely because they were more familiar with the particular word combination

which uses the same verb *meter* and also refers to the concept of interfering. The idiom *meter la*

mano exists only in singular form and means 'to meddle (in/with).' While the idiom has the same

meaning as *meter las narices*, it was not produced correctly because it was given in the plural

form, and therefore was judged not to be an acceptable variation for the idiom *meter las narices*.

Meter las patas was not an acceptable option either, because, first, it was not produced correctly

since the noun was pluralized, and, second, because it has a different meaning (fig., 'to make a

blunder'). It seems that in this case there is not interference from the first language; rather, the

L2 learners are still trying to master the different idiomatic phrases that accept *meter* as their

main verb, although not all of them have the same figurative meaning. In addition, it seems that they are more familiar with *meter la mano* and *meter la pata* even though *meter las narices* is a frequent idiom in Spanish as well. This case exemplifies the difference between frequency of a particular idiom in a given language and familiarity with it by a particular speaker.

Although all of the participants eventually produced the correct noun for the phrase *morderse la lengua*, only two of them were able to do so on the first try and another two on the second. A majority of the subjects did not provide another noun in their answers; rather they chose to say 'I don't know' or wrote the indefinite article *una* until they saw the version of the idiom with the literal translation of the constituents. From the few subjects who chose to provide a noun as a possible answer, the choices included *boca* 'mouth', *palabra* 'word', *pata* 'foot', and *cabeza* 'head.' Those subjects seem to be interference on two different levels, one from the L1 and the other from other idioms in the L2. For example, the L1 interference can be seen in the word *palabra.* It is possible that the subject was confusing 'swallow one's words' with 'bite one's tongue' while trying to provide the correct noun in Spanish. 'Bite off somebody's head' is another idiom that might have interfered with the successful production of the noun in the L2, because the L2 speaker had at his/her disposal the verb bite, (Span. *morder*) and from there recalled what was to him or her the most salient idiom in English based on that verb. Due to the interference from the L2, one of the subjects wrote *morderse la pata*, possibly confusing it with *meter la pata* given that both verbs, *meter* and *morderse*, begin with *m* and belong to the *–er* class of verbs. Further, both expressions require a singular feminine noun that takes a definite article.

The fourth expression in this group is *arrojar la primera piedra*. All of the participants were able to supply the necessary noun, but they did so on the second try. One subject showed

interference from another Spanish idiom. He/she confused *tirrar/arrojar la esponja* with *arrojar la primera piedra*. This occurred most likely because both idioms accept the same two verbs and require a singular feminine noun. Two other participants mapped their knowledge of a particular English idiom onto the Spanish one, resulting in a negative transfer. They made a false connection with the English 'strike' or 'lower the flag', i.e., 'to surrender', and the Spanish phrase *arrojar la primera ___.* The context did not seem to have influenced this connection because it never mentioned anything about giving up or surrendering.

The final phrase in this group is *buscar una aguja en un pajar*. The participants were more successful in providing the necessary noun from the first attempt as they seemed familiar with this phrase and knew the word for needle. Only three of the subjects did not provide the correct answer. Two of them did not know the word, and one wrote *agujera* instead of *aguja*. The word seems to be a mix of *agujero* 'hole' and *aguja* 'needle.' Nevertheless, the subject did not receive a point for his/her answer because the word *agujero* only has a masculine version, while *agujera* is not a word in Spanish.

Although the identical idioms have the same syntactic and semantic structure in both languages, when the subjects were not able to provide the necessary answer on the first or even second attempt, they did not resort to transferring their knowledge from the first language into the second one; instead, they waited to see the literal translation of the individual words before providing an answer. It is possible that they did not realize that these idioms are identical in both languages. Translation was a preferred strategy by this group as well; however, the participants were faced with the demanding task of providing the correct word, because many of the nouns have multiple translations in Spanish and the subjects were not always certain which was the best fit. Nevertheless, when deciding which word to provide they chose the concept most salient to

them because of familiarity with the particular word. Yet, it was much more challenging to the

L2 participants to provide the necessary noun than the verb because not all of the nouns were

very frequent words especially in comparison to the verbs.

5.5.2. Noun Omitted in Similar Idioms

From the similar idioms, the participants had the least trouble providing the necessary

noun for the phrases *meter la pata* 'to put your foot in your mouth' (88.9%) and *costar un ojo de*

la cara 'to cost an arm and a leg' (85.1%). Only one out of the nine subjects was unfamiliar with

this idiom and wrote that he/she did not even have an idea what the noun could be. The subject

answered *no sé* ('I don't know') on the first and second attempt. Once he/she was able to see the

literal translation, however, the participant was still faced with the difficulty of correctly

translating the noun from English, because 'foot' can be translated as *pie* (the principal

meaning), but there is also a secondary meaning, *pata*, which is often used to refer to the leg of a

piece of furniture or an animal's paw. In this case of this idiom, the necessary noun is *pata*.

Seven out of the nine subjects supplied the correct noun, *ojo* 'eye,' for the idiomatic

phrase *costar un ojo de la cara* (lit. 'to cost an eye of the face', fig. 'to cost an arm and a leg') on

the first attempt. The other two waited to see the literal translation of the noun in the third

version. One of those two participants, however, provided a partial answer on their first try.

He/she wrote *oj*, but because the subject did not try to correct him/herself on the second attempt

and wrote *no sé* ('I don't know') as an answer, he/she received only a point for providing the

correct answer on the final try and *oj* was scored as incorrect.

The next group of idioms was problematic to complete, and the L2 speakers were largely

unsuccessful in providing the necessary noun. The idioms *llover a cántaros/mares* (lit. 'to rain

pitchers/seas', fig., 'to rain cats and dogs'); *echar leña* (wood) *al fuego* (lit., 'add/throw wood to

the fire', fig., 'to add fuel to the fire'); and *me levanto con el pie izquierdo* (lit. 'to get up with the left foot', fig., 'to get up/wake up on the wrong side of the bed') all posed considerable difficulty for the L2 learners when they tried to produce the missing nouns. *Llover a cántaros/mares* proved to be a difficult-to-recognize idiom—only two out of the nine participants were able to supply the correct noun. Other subjects showed interference from the L1—they included the noun *gatos* in their answers, making the idiomatic phrase more identical to the English 'to rain cats and dogs.' Unfortunately, the Spanish idiom does not include any animals as possible variations. One other participant provided the noun *cubetas* 'buckets' on the first attempt, once more showing influence from the L1 because the idiom 'to rain cats and dogs' also has another acceptable version with 'to rain buckets.' Although the majority of the participants saw the literal translation of the constituents, they were unable to provide the right noun for this phrase because the word 'pitchers' has several possible translations in Spanish but only one is 'acceptable' for the idiomatic phrase. For example, 'pitchers' can be translated as *cántaros, jarros, jarras*. Some of the participants used *jarros, jarras, jarritos* and even *vasos* 'cups'/ 'glasses' as possible translations for the word. None of the subjects tried to translate the word 'seas,' which was also given as an alternate noun that can complete the idiomatic expression in Spanish.

The second problematic phrase is *echar leña al fuego*. Only four of the subjects were able to provide a correct answer for this phrase. Four other participants were influenced by their familiarity with the idiom in the L1 and, although the nouns were different, they transferred the word for fuel, in this case, gasoline, which is another variation of the same idiom 'to add fuel/gasoline to the fire.' Finally, when the subjects were able to see the literal translation of the constituents, they were faced with the problem of translating the word for 'wood' correctly. Only

two were successful at providing the necessary noun *leña* while the other participants used *madera* and *leño* as possible translations.

The final idiom in this group is *me levanto con el pie izquierdo*. All nine subjects were able to provide the correct answer. Three of them were able to do so on the first attempt and the other six were able to do so once they saw the literal translation of the word 'foot.' This time, all of the participants translated the word for 'foot' correctly as *pie*, probably because this word is used for human beings to indicate the part below the ankle. Nevertheless, some of the subjects once more showed interference from the L1 when they supplied the word *lado* 'side' as a possible answer, taking it directly from the idiom in English 'to get up/wake up on the wrong side of the bed.' Unfortunately, *lado* was not an acceptable substitute for *pie* in the Spanish phrase.

In sum, when the learners were familiar with the idioms, they supplied the correct missing word without resorting to L1 transfer or translation; instead they retrieved it directly from their mental lexicon similarly to what native speakers do. Nevertheless, the subjects still experienced interference from the L1 because they resorted to using their idiomatic knowledge from the native language when they did not know what the missing word was. In addition, since the missing words were different in the two languages, translation as a strategy was more taxing because there were usually several different ways to translate the word in question from English to Spanish, and the necessary noun was not a very common word for the L2 speakers. As a result, some of the participants were not able to provide an answer at all and simply replied that they did not know the necessary word. This type of answers was much more frequent in the missing noun group, when compared with the responses of the missing verb group.

5.5.3. Noun Omitted in Different Idioms

The group of different idioms that was the easiest to complete when the noun was missing consisted of *tomarle el pelo* 'to pull someone's leg' (74 %); *no dar el brazo a torcer* (70%; this idiom will be discussed in a separate section); *no tener pelos en a lengua* 'not to mince words' (48.1%); *dar/pasar gato por liebre* 'to sell a pig in a poke' (40.2%); and *poner el grito en el cielo* 'to pitch a fit' (37.3%).

The majority of the participants (six out of the nine) provided the necessary noun on the first try. The other three waited to see the literal meaning of the phrase and then translated the noun. Two were successful in producing the correct word *pelo*, but one chose to write *cabello* instead. Although this is another way to refer to hair in Spanish, the noun was not an acceptable alternative, so the answer was scored as incorrect. Curiously enough, the subjects were aware that this idiomatic expression required a body part, so they used nouns related to the body such as *brazo* 'arm', *ojo* 'eye', *oido* 'inner ear'/'hearing.' One of the participants included *pie* 'foot' as his/her first choice to complete the idiomatic phrase. This subject was transferring his/her knowledge about teasing somebody, i.e., 'pulling their leg,' onto the idiomatic phrase in the L2. However, since the semantic structure is different in the two languages, it resulted in a negative transfer.

No tener pelos en la lengua is the next idiom in this group. The subjects relied mostly on seeing the literal meaning of the missing noun, as their attempts to provide the necessary answer on the first and second try were unsuccessful. Only two participants supplied the correct answer on the first try. Nevertheless, L2 learners made use of the available information within the

idiomatic phrase and tried to logically complete the word string by providing nouns such as *cara* 'face', *barba* 'beard', *nariz* 'nose', *cabeza* 'head', *espalda* 'back'—all places where hair grows, literally.

The next expression, *dar/pasar gato por liebre*, was largely unknown to the participants, so they took advantage of the literal translation of the noun before arriving at the correct answer. Only one was familiar with the phrase and provided the necessary noun from the beginning. One other participant was aware that the missing noun was related to an animal and tried to provide an answer accordingly by writing *conejo* 'rabbit' and *oveja* 'sheep.' Nevertheless, those answers were not acceptable. Two other subjects focused on the words within the phrase in order to figure out the missing noun. They, however, misinterpreted the word *liebre* as *libre* 'free' and based on that, provided answers such as *pasos* 'steps', *sentido* 'feeling', *tiempo* 'time.'

The final phrase in this group is *poner el grito en el cielo*. The subjects were not able to figure out its meaning from the first two attempts and relied on the literal translation to figure out the meaning of the missing noun. Once they saw the literal meaning of the word, they were able to successfully translate it. Only one subject gave the correct answer on the second try. Surprisingly, two participants used their pragmatic knowledge related to comic books and comic hero movies about calling for help by signaling for it in the sky (e.g., Batman) and tried to complete the idiomatic phrase based on that idea by providing answers such as *signo* 'sign', *mensaje* 'message', and *anuncio* 'announcement', since the partially completed phrase was *poner ____ en el cielo* (put _____ in the sky) and the text was referring to the Second World War.

Supplying the correct noun for the different idioms presented the L2 learners with the greatest difficulties. Their success rate was extremely low: 7.4% for *hacer buenas migas* (lit. 'to

make good crumbs', fig. 'to hit it off'); 22.2% for *estirar la pata* (lit. 'to stretch the leg', fig. 'to kick the bucket); 25.95% for *estar hasta la coronilla* (lit. 'to be up to the crown', fig. 'to be fed up'); 33.2% for *echar/tirar la casa por la ventana* (lit. 'to throw the house out of the window', fig. 'to paint the town red'); and 37.3% for *poner/levantar por las nubes* (lit. 'to put somebody up in the skies', fig. 'to praise somebody to the high heavens').

       Hacer buenas migas posed the most trouble for the L2 learners, although half of them understood the underlying metaphor for being friendly to/with somebody. Thus, they provided answers related to that idea; for example, *(hacer buenas) gracias* 'to be pleasant', *(hacer buenas) amistades/relaciones* 'making good friendships'/ 'relations.' Once all of the subjects saw the final version of the idiomatic phrase along with its literal periphrasis, they attempted to translate the word 'crumbs' into Spanish. Four of the participants did not know this word, and the other five offered three variations of it: *popitas, migajas*, and *migas*. Although all three of the words were correct, the idiom accepted only *migas* as a possible answer, allowing for two L2 learners to receive a point for their responses.

       The next idiom in this group is *estirar la pata* 'to kick the bucket.' None of the participants was able to provide the necessary noun on the first or second attempt. The participants misunderstood the idiom to mean 'to extend/stretch a (helping) hand' because they provided the word *mano* 'hand' as a possible answer before seeing the literal translation of the constituents. This interpretation of the idiom was most likely influenced by their familiarity with the English idiom 'to extend a helping hand,' which unfortunately, has nothing to do with the Spanish phrase in question. The context was also not helpful to the L2 learners, although it described a sick, old man at the end of his days who thought he saw an angel. The translation of the noun was also problematic even though the subjects were given a hint. They saw the noun

'leg' accompanied by 'paw' in parenthesis. Still, three of the subjects chose to translate it as *pierna* instead of *pata*. The low success rate for providing the correct noun for this common idiom is probably due to the phrase being a colloquial one, with its use being limited to certain situations, so it is possible that the L2 learners might not have had enough exposure to it to allow them to commit it to memory and retrieve it quickly when necessary.

Estar hasta la coronilla is the third different idiom. The subjects were aware of the underlying metaphor for someone being filled up with annoyance, usually indicating a part of the human body located between the neck and top of the head. This idea was also reflected in the answers given by the participants. For example, they wrote *cabeza* 'head', *frente* 'forehead', *cara* 'face', *garganta* 'throat'/ 'neck', one participant even added *colma* 'overfill' as a way of expressing the metaphor. Regardless of the fact that these words are related to the overall metaphoric idea, they are not acceptable options for the idiomatic phrase, which, in this case, allows for a greater variation than most fixed phrases. Although the L2 learners were presented with the literal translation of the most salient noun, i.e., *coronilla*, other variations were also acceptable. One of these variations is *estar hasta la nariz* 'to be up to the nose.' Three of the participants provided this noun. The other six, however, relied on the literal translation of the constituents. Unfortunately, due to the unique word used in the phrase (*coronilla* 'top (crown) of the head'), were unable to produce it correctly. Other acceptable noun variations for this phrase are *estar hasta la madre/tusa* ('corn husk' or 'cob'), *tuza* ('mole' as in the animal).

The fourth phrase in this group is *echar/tirar la casa por la ventana*. All of the participants resorted to translation as this phrase proved difficult to decipher. Nevertheless, all of them were able to provide the necessary noun once subjects saw the literal translation of the word. Although the participants were not familiar with the concept, some of them tried to draw a

parallel between this phrase and the idiom 'to throw stones in glass houses,' using individual constituents within the phrase (*echar* 'to throw' and *la ventana* 'window, glass') as cues. Needless to say, the two concepts are very different.

     The final idiom in this category is *poner/levantar por las nubes*. Once more the participants were not familiar with this idiom and waited to see the literal translation before providing the correct noun. Half of them could not even make a guess and simply wrote "I don't know" or typed a letter to take them to the next version of the idiom. Only one subject supplied the correct answer on the second attempt.

As we have seen, the most difficult category to reproduce was the different idioms with the missing noun. The learners predominantly used translation as a way of providing an answer. However, they were often unable to supply the correct answer, especially when the noun was not a frequent word. The participants also made use of their world knowledge in order to supply the necessary noun in the different idioms, which however, did not necessarily help them arrive at the correct meaning of the word in question. Also, it seems that when the idioms are different, the learners do not take advantage of the richer context in order to figure out the missing noun. Instead they prefer to rely on translation as a way of figuring out the missing word. Translation was preferred as a strategy more likely because context did not provide sufficient information about out the meaning of the missing constituent, on one hand, and on the other, it seemed like a safer option that may lead to a greater success in supplying the missing constituent since the near-native speakers, in general, have a good knowledge of single vocabulary words. Another reason for the low success rate in this category was that the verbs did not provide enough content information for the L2 speakers to be able to figure out the missing noun without resorting to translation or guessing.

5.6. Special Cases: *No Dar el Brazo a Torcer*

This idiom merits a separate discussion due to the discrepancy in the way it was classified by the dictionaries and by the similarity principle proposed by Irujo (1986). If one is to follow Irujo's syntactic and semantic similarity, then this idiom is to be classified as identical. *No dar el brazo a torcer* has an English equivalent of 'don't let someone twist your arm,' meaning not allowing oneself to be coerced or persuaded to do something one does not want to do. Nevertheless, the dictionaries, both on paper and online, translate this idiom most often as a different one, offering other figurative periphrases. For example, online dictionaries such as casadelasletras.com.ar/refranes translate the idiom as 'to stick to one's guns.' This seems to be a common translation offered in printed dictionaries as well. *Modismos ingleses para hispanos* (2007:119) also uses the same paraphrase. *Red Hot Book of Spanish Slang and Idioms* (2006:157) provides a figurative equivalent of 'not give in' and literal periphrasis of 'to be stubborn' or 'persistent.' This book, however, also offers a literal translation in parenthesis 'not to give one's arm to twist' but it does not acknowledge that this idiom is a literal one (or transparent, i.e., the individual words contribute to its overall figurative meaning) and, hence, the same translation is used to convey the figurative meaning of the phrase. *The Big Red Book of Spanish Idioms* (2004:20) is one of the few that includes 'not to let somebody twist one's arm' as a figurative meaning along with 'to hold/stand one's ground' and 'not give in.' It seems that the literalness of the idiom has prompted lexicographers to choose a more figurative equivalent of the phrase in order to keep up with its idiomatic status. Nevertheless, such treatment of the phrase has encouraged learners to assume that this idiom is a different one and lacks the exact equivalent in English. In addition, there seems to be a long-standing tradition of offering only a literal periphrasis for this idiomatic phrase without acknowledging the identical underlying

metaphor in both languages. For example, the 1886 edition of *Spanish Idioms with their English Equivalents* interprets the idiom *no dar su brazo a torcer* only literally, as 'not to be willing to put one self out of one's way for another.' *A Dictionary of Spanish Idioms with their English Equivalents* (1922) gives a very similar interpretation as well: 'not to put one self out for the sake of another.' It seems that lexicographers have created an artificial gap between what is an identical idiom in Spanish and English by offering only a literal periphrasis of the idiomatic phrase and thus making learners believe that there is no idiomatic equivalent in English. Furthermore, this way of thinking has inspired most dictionary writers to treat the same idiom as dissimilar in both languages by offering different figurative substitutes for it in English. Because there seems to be disagreement on how to classify this idiom, the researcher included it with the different idioms, although the underlying metaphor exists in both languages, and decided to see how the L2 learners would treat it. Interestingly enough, this idiom was recognized as similar when the verb was provided but the noun was missing. The subjects had a far easier time providing the missing noun successfully (e.g., *no dar el _____ a torcer*) than providing the missing verb (e.g., *no _____ el brazo a torcer*). A majority of the participants (eight out of the nine subjects) relied on the literal translation of the verb, which did not provide them with an exact match in Spanish when they tried to translate it. The overall success rate for the verb group was 22.2%; compare this to 70.3% for the noun group, which did not rely as much on the literal translation, provided the missing noun five out of nine times on the first try, and correctly translated the literal meaning of the noun the other four times. The participants in the verb group were aware of the general idea of allowing/letting somebody (not) be persuaded, but they were not sure which Spanish verbs was the designated one for the particular expression. In their

attempt to provide the missing verb they tried *dejar* 'let'/ 'allow', permitir 'allow', *ceder* 'to give up', *tomar* 'to take', *poner* 'to put', *cambiar* 'to change' as possible solutions.

5.7. Idiosyncrasies of the Control Group

Although the native speakers are extremely familiar with the idioms in question, their results showed some interesting patterns when providing the missing constituent, particularly in the case of two specific idioms, regardless of the fact that they were given in context. Half of the native speakers confused *estirar la pata* 'to kick the bucket' with *meter la pata* 'to put one's foot in his/her mouth' when they had to provide the missing verb. It is possible that this confusion occurred because the native speakers are already well familiar with the idioms and have them committed to memory as long words that are triggered by a key word, in this case *(la) pata*. It seems that because of their familiarity with the idiom, they did not pay much attention to the context until they got it wrong. It is also possible that *estirar la pata* is a much more colloquial idiom that is used in a more restricted discourse, whereas *meter la pata* is less colloquial and thus used in wider contexts.

Another pair of idiomatic expressions the native speakers confused is *tirar/arrojar la toalla* and *tirar/arrojar la (primera) piedra*. Once again it seems that the verbs in combination with the definite article *la* are sufficient to trigger recognition of the phrase as *tirar/arrojar la primera piedra* even though the adjective *primera* is absent from the word string. This is more likely due to the fact that *tirar/arrojar la primera piedra* is a biblical idiom that is used more often in day-to-day interactions.

5.7.1. Idioms With the Verb Omitted Native Speakers

In the group with the omitted verb, there are four idioms on which the native speakers scored less than 100%. Those idioms are *meter las narices, faltar a la palabra, hacer buenas*

migas, no dar el brazo a torcer. Nevertheless, the overall success rate for each of those idioms is 91.7%. In general, when the native speakers provided an answer different than the expected one, it was usually because they confused one idiom with another. For example, instead of the idiom *meter las narices,* one subject provided a different verb and wrote *tocarme las narices*, which in Spain means 'to pester somebody' but everywhere else means 'to be lazy.' According to the context, *tocarme las narices* was somewhat fitting but not the idiom the researcher was looking for, especially given that the other subjects were able to provide the verb *meter.* They, however, were from Latin America and did not share Spain's meaning of *tocarme las narices*, and thus did not have the problem of mixing up one idiom with the other. As for the other idioms that resulted in less than perfect scores, one participant used *honrar la palabra* 'to keep one's word' instead of *faltar* 'not to keep one's word,' changing the meaning from negative to positive. His/her answer was not scored as correct because it changed the meaning of what was being said in the paragraph. Nevertheless, the subject corrected his/her answer on the second try. Another subject provided *dar* instead of *hacer* for *hacer buenas migas*, but he/she too corrected that answer on the second attempt.

5.7.2. Idioms with the Noun Omitted Native Speakers

There was considerably less interference from other idioms when the native speakers had to provide the missing noun. Apart from the already mentioned problem with *tirar/arrojar la toalla/primera piedra,* the only two instances in which the participants from this group scored less than 100% was when they had to provide the noun for the idiom *meter las narices.* Instead of *narices* one subject wrote *manos*, which was not a viable option for this expression given the contextual clues. The other instance occurred with the idiom *hacer buenas migas*. One of the

subjects was not able to provide the correct word despite being aware of the general meaning of the idiom, resulting in a success rate of 75% for this particular phrase.

To sum up, the control group's high familiarity with the selected group of idioms is reflected in their nearly 97% overall success rate in producing the missing constituent. Nevertheless, there were some differences between the two groups of native speakers. The group that needed to supply the missing verb showed greater interference from other idioms when the verb was absent. This happened because the native speakers already have the idioms present in their mental lexicon as long words triggered by a key word within the phrase. Once they saw that the answer was not correct, they used contextual information to help them decide which verb they should use. Also, this group provided valuable information about regional variation in acceptable verb variants. The noun group on the other hand, did not include regional variation in their answers and stayed true to the dictionary forms of the idiomatic expressions. The native speakers in this group scored slightly better across the three types of idioms and showed less interference from other idioms. It seems that the verbs and the rest of the constituents were sufficient to trigger recognition and successful production of the idioms in question.

5.8. Discussion

The test group was most successful at producing the missing constituent when the idioms were identical in the two languages, but experienced more interference from the L1 when the idioms were similar, and had significantly more difficulty supplying the missing word when the idioms were different. Those results corroborate the findings from previous studies conducted by Irujo (1986) with near-native L2 learners and by Liontas (2002, 2003) with third-year L2 learners. In terms of processing idioms in the L2, the findings suggest that when the near-native speakers were familiar with a particular idiom, especially when the idiom was identical in both

languages, they did not process it literally first, as previous studies have suggested (e.g., Liontas 2003; Cieślicka 2007; Siyanova-Chanturia et al. 2011). Rather, they processed it figuratively and supplied the necessary word to complete the idiomatic string. When the missing constituents did not have an exact equivalent in the L1 or were completely different in the two languages, the subjects processed them literally before they could compute the figurative meaning and select an appropriate lexical equivalent in the L2 to complete the figurative expression. Therefore, familiarity with a particular idiom influences whether L2 speakers process the string literally or figuratively. This way of processing idioms is reminiscent of theories on idiom processing and production in the L1 (e.g., Sweeny & Cutler 1979; Gibbs 1980, 1986; Titone & Connine 1999). I do not claim that near-native L2 speakers process idioms the same way native speakers do, rather that when L2 speakers are familiar with a particular idiom, they bypass linguistic analysis of it and process it figuratively regardless of its similarity to an L1 idiom. On the other hand, if they are not familiar with a particular idiom, even if it is has an identical one in the L1, they will process it literally first in order to arrive at the figurative meaning and select the appropriate word to fill in the blank. Undeniably, having identical semantic and syntactic structures aids recognition and production. Another way the L2 learners from the missing verb group resembled the native speakers was when they, too, confused the idiom *estirar la pata* 'to kick the bucket' with *meter la pata* 'to put one's foot in one's mouth.' Despite the contextual information, majority of the L2 learners chose to provide *meter* instead of *estirar* once they saw the word *pata*. It is possible that, like the native speakers, the L2 learners confused the two phrases because they were much more familiar with the idiom *meter la pata,* which is used in wider contexts, and have it stored in the mental lexicon as a long word whose recognition is triggered by the word *pata*, making context less essential to them.

Although translation was a preferred strategy by the L2 speakers from both groups in this study, it did not always yield positive results. This was especially true for the group that needed to provide the missing nouns. They were faced with the greater cognitive challenge not only of translating the word but also of selecting the best option from among multiple possible Spanish translations of the word, resulting in 10,020 occurrences versus only 1,711 instances for *leña* once a search was performed in the corpus of Contemporary Spanish (*CREA*). Therefore, the successful reproduction of the missing constituents was further complicated by the frequency of the individual words. The subjects who needed to supply the missing nouns needed to have a greater individual vocabulary in comparison with the L2 speakers who were asked to produce the omitted verbs. In general, the participants in the omitted verb group needed to know only 17 verbs to complete the 25 fill in the gap phrases. On the other hand, the missing noun group needed to know 23 out of the 25 missing constituents in order to be successful at reproducing the omitted words. After a frequency word search was performed in *CREA,* it became obvious that in general the group of verbs needed to complete the idiomatic phrases is much more frequent in comparison to the nouns. For example, for the five most common verbs from the group were *hacer* (106,408 occurrences), *tener* (63,080), *estar* (49,883), *dar* (45,297), and *pasar* (25,589). All of the frequencies were given for the infinitives of the verbs. The five most common nouns, on the other hand, were *casa* (81,383 occurrences), *manos* (37,835), *luz* (32,510), *pie* (20,499), and *fuego* (16,207). On the other hand, nouns such as *coronilla* (198 occurrences), *migas* (367), *esponja* (372), and *cántaros* (389) have very low frequencies in the corpus making those words difficult to commit to memory and reproduce correctly.

Another factor affecting the successful production of the missing constituents is also word familiarity, which is different from word frequency: a speaker might be familiar with a less

frequent word such as *cántaros* 'pitchers' (389 occurrences in CREA) or *estirar* 'to stretch' (432). When the learners were familiar with a particular word, regardless of its frequency, they were able to provide the correct answer. A complete list of the verbs and nouns necessary to fill-in-the-blanks in the first study along with their frequencies in the corpus can be found in Appendix F.

Moreover, the L2 learners were divided into two groups with a different constituent missing in order to determine which of the two words, the verb or the noun, would act as an idiom key triggering idiomatic recondition. The idea of an idiom key word was adopted from Cacciari and Tabossi (1988), who worked on locating exactly when and how the figurative meaning of an idiomatic expression becomes available to the native speaker. (The idiom key hypothesis was discussed in detail in chapter 2.) The idiom key hypothesis was modified for this study in several ways. First, the subjects were near-native L2 speakers and not native speakers. Second, the L2 learners were not fed increasingly longer segments of word strings to activate their idiomatic knowledge in the L2; rather, they already knew that they were working with idioms, but one of the main constituents was missing and they had to provide it. Third, the omitted constituents had a fixed place within the idiomatic string. For the group with the omitted verbs, it was always the verb at the beginning of each phrase that was absent. For example, ____ *la pata* (lit., 'to put/stretch the leg/paw'). For the group with the missing noun, syntactically the omitted nouns were always the head of the noun phrase. For example, *meter la* ____ (lit., 'to put one's leg/paw'). The results from the fill in the blank tasks showed that the L2 speakers considered the head noun to be the idiom key because it was easier for them to reproduce the missing verbs when the rest of the idiomatic phrase was present, including the head noun. In contrast, when the noun was omitted, the L2 learners had considerably more difficulty producing

the necessary noun, especially in the similar and different idioms. It was easier for the speakers to infer the meaning of the nouns within the idiomatic strings—even if they were not familiar with a particular word, they understood the overall idea. However, it was much more difficult to provide the specific noun as some were not frequently encountered by the L2 learners and not present in or easily accessible from their mental lexicon. As a result, the subjects in the missing noun group relied on a wider variety of strategies to supply the missing word. Other than translation, in which try tried to provide a semantically relevant word, they also resorted to using pragmatic knowledge about the concepts evoked in the idioms in order to provide an answer. They also made greater use of contextual information as a way of figuring out the necessary word. The L2 speakers from this group were more likely to resort to guessing or to state that they had no idea which word to provide. In the next section, I analyze the data from the second experiment, which focused on the different strategies the L2 speakers used when they were working out the meaning of unfamiliar idioms embedded in a paragraph-long context. I also contrast and compare the results from this study with previous ones (e.g., Cooper 1999, Liontas 2002, Bulut & Celik Yazici 2000, and Rohani et al. 2012).

5.9. Experiment II: Results of Think-Aloud Protocol

In this study, only the L2 speakers were asked to verbalize their thoughts while working out the meaning of unfamiliar idioms in the L2. The participants read one paragraph at a time, discussed it, and then moved on to the next one. The seventeen subjects who took part in this second study were divided at random into two groups based on their availability. The first nine participants to be interviewed were in group A, and the other eight in group B. One participant chose not to continue with the second study. The second group was given the literal meaning of the constituents of the idiomatic phrase upon request. The idea was to compare whether there

would be any differences in the strategies used by the two groups of L2 learners if one of the groups were given the literal meaning of the individual constituents. The list contained fifteen idioms in total. They were different from the ones used in the previous experiment. The researcher intentionally chose idioms that are not as frequent and are predominately different in syntactic and semantic structure from their English counterparts because they were more likely to be unfamiliar to the L2 speakers. Majority of the idiomatic phrases were opaque, i.e., the individual parts do not contribute to the overall figurative meaning of the idiom (e.g., *pagar el pato*; lit., 'to pay the duck,' fig., 'to take the rap') or semi-transparent, i.e., the constituents contribute indirectly to the figurative meaning of the idiom (e.g., *pan comido*; lit., 'eaten bread,' fig., 'piece of cake'), although there also were some transparent phrases, i.e., the individual words contribute to the overall meaning of the idiomatic phrase (e.g., *soltar la lengua*; lit., 'to loosen the tongue,' fig., 'to spill the beans').

There were a total of fifteen idioms each embedded in a paragraph-long context. The texts were taken from CREA and modified to exclude any other idioms that were used along with the ones from the list. In general, the extra idioms found in the natural context were replaced with their literal paraphrases to avoid distracting the subjects from the idioms at hand. Also, in ten out of the fifteen paragraphs, clue words and/or phrases were added to aid comprehension of the idiomatic phrases. The other five texts were judged to contain sufficient information related to the meaning of the idioms without having to add extra clue words.

5.9.1. Overview of the Results

There were a total of 255 sentences containing the final answer for the meaning of each idiomatic Spanish phrase. Of those, three were eliminated to due technical problems, leaving a total of 252 answers to be analyzed. There were forty instances in which the subjects reported

that they were familiar with a particular idiom. Those sentences were counted towards the overall success rate of providing a correct, partially correct, or wrong answer for the idiomatic expressions, but were excluded from the discussion on the different types of strategies the L2 learners used, since they were not likely to apply any strategies to figure out the meaning of the particular phrase.

The subjects were most familiar with the idiom *ir al grano* (lit., 'to go to the grain,' fig., 'to get to point').Seven of the seventeen participants indicated that they were familiar with the idiomatic phrase and provided the correct answer. The second most recognized idiom, with six participants indicating that they knew it from before, was *pan comido* (fig., 'piece of cake'). Five subjects were familiar with the idiom *ser aguafiestas* (fig., 'to be a party-pooper'). The idioms *hablar por los codos* (fig., 'to be a chatterbox); *andarse con rodeos* (fig., 'to beat around the bush'); and *qué mosca le ha picado* (fig., 'what's eating him/her?') were recognized by three participants. *Soltar la lengua* (fig., 'to spill the beans') was familiar to two subjects, and the last few idioms, recognized by one participant each, were *poner el casabel al gato* (fig., 'to stick one's neck out); *dar (la) lata* (lit., 'to drive crazy'); *tener la sarten por el mango* (fig., 'to call the shots'); *meterse en camisa de once varas* (fig., 'to bite off more than one can chew,'); *and sacar de quicio* (fig., 'to drive crazy').

The participants were able to provide the correct answer in 122 instances and a partially correct answer in another 61 out of the 252 sentences, resulting in an overall success rate of 72.6%. The partial answers were included as well because the subjects showed that they understood the general meaning of the idiom even if they were not able to express it in the best possible way during the think-aloud protocol.

Graph 5.5. Shows the overall success rate in percentages for the two groups, which includes the correct and partially correct answers.

Graph 5.5 Overall Success Rate in Guessing the Meaning of Idioms in the L2
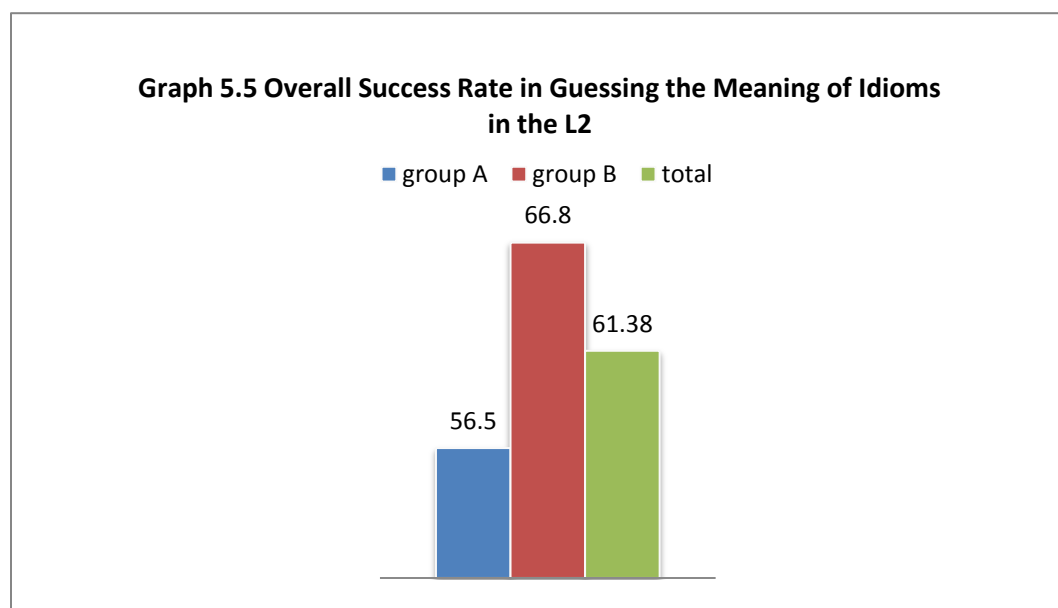
As can be seen from the graph, the second group was more successful in providing the correct and partially correct answers for the idioms. This is largely due to the fact that this particular group was given the literal meaning of the individual constituents upon request, which made it possible for the L2 learners to make more educated guesses. The first group did not enjoy the same advantage, and the participants often expressed their desire to know the meaning of a particular word from the various idiomatic phrases.

Before focusing on the different strategies the L2 learners used to figure out the meaning of unknown idioms, I will discuss briefly the success rate for each idiom, comparing the two groups. The graph below demonstrates the success rate for each of the fifteen idioms in both groups.

Graph 5.6 Success Rates per Idiom
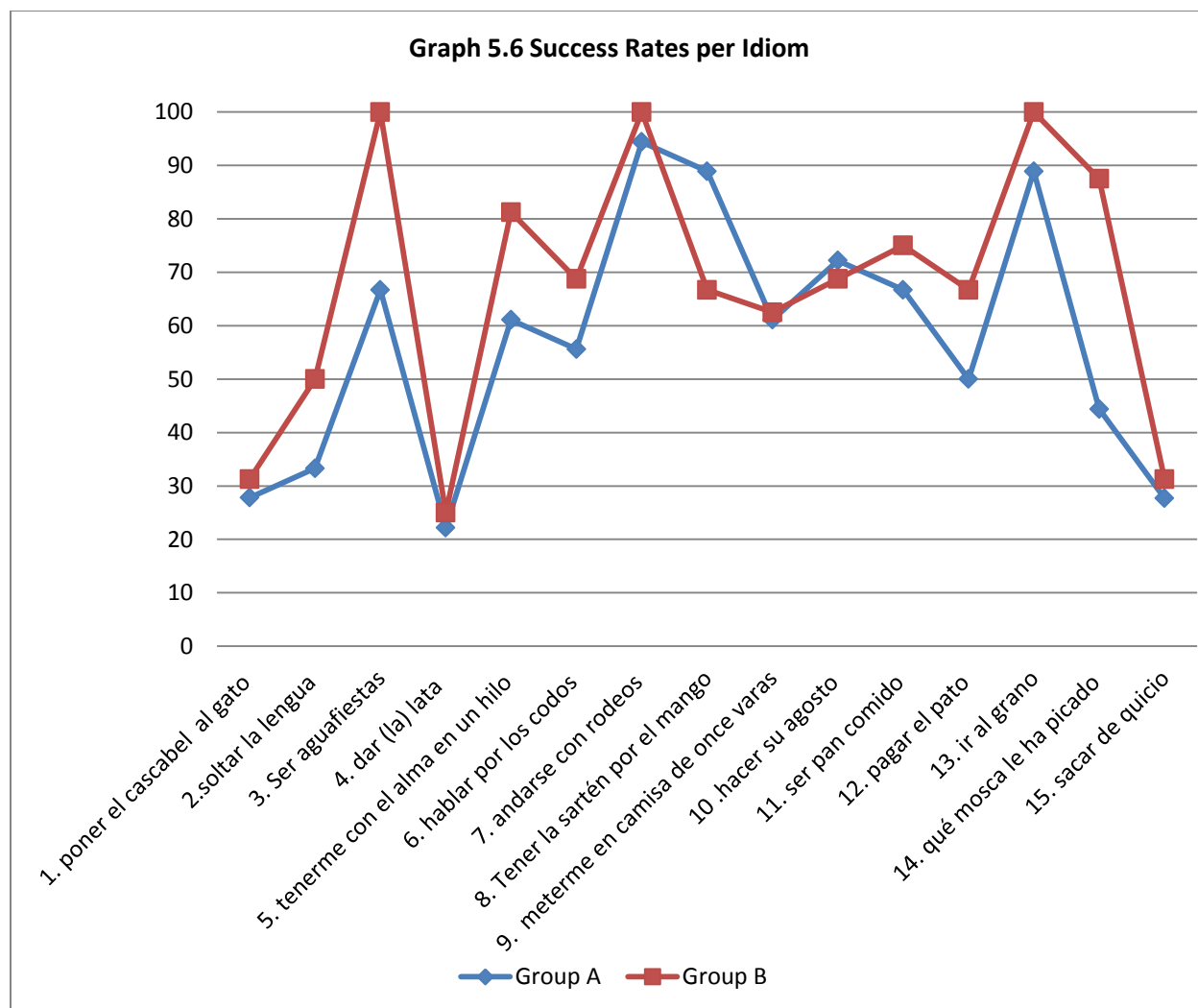
The subjects from both groups had difficulties figuring out the meaning of the idiom *poner el cascabel al gato.* The lower scores, 28% for group A and 31% for group B, were largely due to the fact that the subjects interpreted the metaphor of belling the cat in a different way. They focused their attention on the cat already being belled and wearing a bell to alert of its presence instead of acknowledging the difficulty of putting the bell on a feline, which is what the metaphor is referring to. It is interesting to note that this exact expression exists in many languages, including English, because it comes from a medieval fable about mice trying to find a brave hero to put a bell on a cat so that they will be alerted when the feline is near.

Although less problematic, the second idiom was also difficult to interpret, yielding low success scores of 33% and 50%, respectively, for each of the two groups. Even if the participants understood the general idea related to speaking by loosening one's tongue, they did not acknowledge the stronger metaphoric connection that was related to (not) keeping a secret.

Ser aguafiestas is a very popular idiom, and some of the participants already knew its meaning. Nevertheless, even the subjects who did not know its figurative meaning beforehand were able to figure it out fairly easily and provided the correct meaning. The second group took advantage of being allowed to request the literal meaning of the word *aguafiestas*, which brought up their overall success rate to 100%, whereas the first group scored almost 67%, showing great improvement over the first two idioms.

The fourth idiom on the list was *dar (la) lata.* This phrase was the most difficult to figure out because it is opaque. The participants could not use the literal meaning of the individual words to predict the overall figurative meaning of the phrase, although all of them knew what the verb *dar* and the noun *lata* mean. Group A had a 22.2% success rate, and group B, 25%.

The L2 learners had easier time figuring the meaning of the idiomatic phrase *tenerme con el alma en un hilo* because this idiom is semi-transparent, allowing the individual words to create an metaphorical link to the figurative meaning of the phrase. Group A gave an acceptable answer 61.1% of the time, and group B reached 81.25%. The existence in English of a similar expression, 'to tug on somebody's heart strings,' increased the probability of providing the correct answer because some of the participants were able to link the two phrases.

Hablar por los codos was the next phrase on the list. The majority of the subjects understood that the idiom was referring to a person talking a lot. However, some of the L2 learners relied too much on the context to help them figure out the meaning of the idiom and

focused on a particular piece of information that led them to partially misinterpret the idiom as speaking without thinking or speaking nonsense. The context included information about the protagonist often digressing and being lost in strange fantasies and paranoia. Because of that, the overall success rate was 55.6% for the first group and 68.75% for the second. Nevertheless, the focus of the paragraph was of the character speaking too much in general.

The L2 learners found *andarse con rodeos* to be very easy to figure out partially due to the wording of the idiom contributing to its overall figurative meaning and partially due to the context. The topic referred to politics, and of the paragraph included clue words such as *engañar* 'to cheat' and *eludir* 'elude.' Others also knew this idiom already, which allowed both groups to give the correct answer with high accuracy: 94.4% for the first group and 100% for the second group.

Tener la sarten por el mango was another phrase that the participants were able to figure out fairly successfully. This time group A outperformed group B, scoring 89% and 67%, respectively, even without the advantage of knowing the literal meaning of all of the words within the phrase. It is interesting to note that majority of the participants interpreted the word 'mango' as the tropical fruit but were not aware of its other meaning as a handle. What helped with the successful interpretation of the idiom were the context and the topic, once more referring to politics.

The next expression that the L2 learners had to interpret was *voy a meterme en camisa de once varas*. The subjects were able to work out the overall meaning the idiomatic phrase with the aid of the context. However, this resulted in giving many partially correct answers, such as "I'll make a fool out of myself if I try to describe something I don't understand" because they relied so heavily on the information in the context and did not focus enough on the phrase, even when

the participants from the second group were told the meaning of the word *vara*—a unit of measurement. Both groups shared similar success in figuring out the meaning of the idiomatic phrase, resulting in 61% for the first group and 62.5% for the second.

 Hacer su agosto was the tenth phrase. With the aid of clue words embedded in the text, many of the subjects were able to guess the meaning of this opaque idiom. The topic, related to fortune telling, also helped a majority of the L2 learners. Interestingly enough, the first group outperformed the second one by a small margin: Group A provided acceptable answers 72% of the time versus 69% for group B.

 Although the subjects from both groups knew the meaning of the individual words in the phrase *es pan comido,* they still had some difficulty providing the correct meaning for the idiom, resulting in success rates of 67% for the first group and 75% for the second. They were able to infer the correct meaning from the context, in which PCs and Macs were being compared, with the conclusion that Macs were better. Nevertheless, some of the subjects focused too much on the comparison (instead of the ease with which the Mac operates), and this caused them to provide wrong or partially correct answers, lowering the overall success rate for the group.

 Pagar el pato was another opaque idiom on the list. The subjects understood the overall meaning from the context, which was dedicated to figuring out who is supposed to pay for certain repairs on a house. This information, combined with the verb *pagar*, provided the general idea for this idiom. Since many of the participants did not offer more information beyond who is responsible for the payment, they received points for a partially correct answer (50% and 67% respectively) because this particular phrase refers specifically to a person who is taking the blame or paying for something that is not his/her fault.

 The next idiomatic phrase was one of the easiest ones to figure out because of its semantic

transparency, i.e., go to the grain, allowing the subjects to obtain high scores of 89% and 100% for each of the groups. The context was also helpful, first, because it was an interview, and second, because the participants were able to focus on clue words, such as the interviewee having little time to spare for the conversation with the journalist.

The next-to-last idiomatic phrase on the list was *qué mosca le ha picado*. The second group significantly outperformed the first one (87.5% versus 44.4%). This difference is due to the fact that some of the participants in the first group completely misinterpreted the idiom and provided information that had very little to do with it, rendering their answers incorrect. Others confused the expression in question with other common English idioms involving a bug, namely, 'to be bit by the bug' and 'to put a bug in somebody's ear.' Neither of those two expressions, however, refers to a negative change in attitude.

The final idiom, *sacar de quicio*, was one of the three most difficult phrases to figure out, yielding only 27.7% and 31.25% for each of the groups. The low success rate was predominantly due to unfamiliarity with the word *quicio* 'doorjamb,' especially since the first group could not clarify its meaning. Nevertheless, even when the participants from the second group were told the meaning of the word, they outperformed the first group by only a small margin. The low success rate is most likely due to unfamiliarity with the particular word combination in the idiomatic phrase, making the idiom an opaque one semantically, as well as insufficient contextual information to aid the comprehension. This particular paragraph was one of the five paragraphs that were not altered by adding extra clue words.

5.9.2. Discussion of the Overall Results from the Two Groups

The results show that a myriad of factors affect comprehension and interpretation of unfamiliar idioms. In general, the participants who had the option to request the literal meaning

of the constituents within the idiomatic phrase (group B) were more successful at providing either a partially correct or a correct answer for the meaning of unfamiliar idioms. Another factor that influenced overall comprehension was the topic. The subjects in both groups were more successful at figuring out the meaning of the unfamiliar idioms when they were related to politics, computers, music, and occult sciences and astrology, in comparison to topics such as literature, current events, blogging. The fact that four of the paragraphs containing the idioms *tener la sarten por el mango, ir al grano, qué mosca le ha picado*, and *sacar de quicio* were not manipulated in terms of adding or removing key words did not seem to have influenced comprehension, because the success rates for the first three idioms from that group were very high. The only exception was the idiom *sacar de quicio*, which was one of the three idioms that were most difficult to interpret even with the literal meaning given.

Familiarity with the individual words within the idiomatic phrases influenced the interpretation of the unknown idioms. In was interesting to note, however, that when the L2 speakers encountered unfamiliar words within the 15 idiomatic phrases, those words were all nouns. The least known of those nouns were *cascabel* 'bell,' *mango* translated as 'handle,' the medieval measurement unit *varas*, *quicio* 'doorjamb,' and *hilo* 'thread.' The L2 learners were less likely to comprehend the idioms and provide a correct answer when they were not familiar with the nouns in question, although in this study all of the words were present within the idiomatic phrase.

Semantic transparency was another factor that influenced idiom comprehension in the L2. The four transparent idioms were easy to interpret by the two groups of L2 speakers, yielding a higher success rate in correct answers. The only word that was largely unknown to the subjects was *aguafiestas*, which can be translated literally as 'water down (something).' The first group

successfully interpreted this idiom 66.7% of the time without having the meaning of the word confirmed. In comparison, the second group took advantage of the literal translation and used it to correctly work out the figurative one, since the connection between the literal constituents and the idiomatic meaning is obvious. They achieved a 100% success rate.

The semi-transparent and opaque idioms posed comprehension challenges to varying degrees. Two out of the three most difficult idioms belonged to the group of semi-transparent idioms. Those were *poner el cascabel al gato* and *sacar de quicio*. Besides the unfamiliarity with the two nouns *cascabel* and *quicio*, the subjects also had a difficult time linking the underlying metaphors to the idiomatic meaning of the phrases. For example, in the idiom *poner el cascabel al gato* the metaphor of belling a cat refers to executing a difficult task, but the participants from both groups focused on the function of the belled collar as a warning to small animals. The subjects' pragmatic knowledge was not helpful to them in this instance. .

The third most problematic idiom, *dar (la) lata*, is an opaque one. And because there was no obvious relation between the literal meaning and the figurative one, the subjects had difficulty deciphering it. In this case, they were familiar with the literal meaning of the words, but this did not prove helpful.

Although the subjects were familiar with far fewer idioms than are native speakers, it was interesting to observe that in terms of processing familiar idioms, the near-native L2 learners resemble native speakers, i.e., they retrieve the figurative meaning first, bypassing literal processing or decomposition, since those phrases are already stored in their mental lexicons as long words and are easy to retrieve. This way of processing familiar idioms is reminiscent of theories of L1 processing proposed by Bobrow and Bell (1979), Gibbs (1980, 1986), and Titone and Connine (1999), who insist that familiar idioms are stored as lexicalized chunks and as such

enjoy processing priory over the literal meanings of the same word strings. This assertion contradicts the literal-first hypothesis in the L2 proposed by Cieslicka (2007), who maintains that L2 learners process idioms literally, even the familiar ones, before activating their figurative meaning. This happens because the L2 learners are familiar with the individual constituents used literally. Therefore, the literal interpretation of the words is the more salient one and is triggered first, regardless of how often the learner has encountered the idiom.

5.10. Strategies Used by the L2 Learners

An analysis of the transcripts of the Think-Aloud Protocol revealed that the participants used six strategies when trying to figure out the meaning of the unknown idioms. Those strategies were named based on the type of answers the L2 speakers gave. Because a detailed explanation about how the different strategies were isolated and labeled was provided in the methodology chapter, here I only mention the types of strategies along with their frequencies. Later I will compare and contrast them with previous studies. The strategies employed by the L2 speakers were:

1. Guessing from context/using contextual information:

a. guessing from/using global context

b. focusing on a keyword/phrase from context

2. Idiomatic phrase-based strategy

a. focusing on the literal meaning of the phrase

b. focusing on a key word within the phrase

c. discussing, paraphrasing, and analyzing the idiom

d. connecting to other idioms—seems/ looks like/ sounds

3. Visualization

4. Use of conceptual metaphor

5. Pragmatic/world knowledge

6. Guessing

The following two tables demonstrate the frequencies of the strategies used by the L2 learners.

Table 5.4. Types of Strategies Used By Group A

Group A	Strategy 1 Using context	Strategy 2 Using the idiomatic phrase	Strategy 3 Visualizatio n	Strategy 4 Conceptua l metaphor	Strategy 5 Pragmatic knowledge	Strategy 6 Guessing	Knew the idiom already
Subject 1	10	8	0	0	5	0	2
Subject 2	15	10	0	0	1	2	0
Subject 3	14	8	0	0	2	0	1
Subject 4	12	8	1	0	0	0	0
Subject 5	12	7	2	0	1	0	2
Subject 6	13	7	0	0	2	0	2
Subject 7	11	5	2	0	5	0	2
Subject 8	4	3	1	0	2	0	10
Subject 9	13	5	0	0	0	2	1
Total frequency	104	61	6	0	18	4	20

Table 5.5. Types of Strategies Used By Group B

Group B	Strategy 1 Using context	Strategy 2 Using the idiomatic phrase	Strategy 3 visualization	Strategy 4 Conceptual metaphor	Strategy 5 Pragmatic knowledge	Strategy 6 Guessing	Knew the idiom already
Subject 1	10	7	3	0	5	0	2
Subject 2	11	8	0	0	2	0	2
Subject 3	14	9	0	0	2	0	0
Subject 4	10	13	0	0	2	0	1
Subject 5	9	6	0	1	2	0	6
Subject 6	10	8	0	0	0	1	2
Subject 7	12	7	4	0	0	0	3
Subject 8	10	6	0	0	2	0	4
Total frequency	86	64	7	1	15	1	20

5.10.1. Strategy 1: Guessing from Context

The frequency charts show that both groups used guessing from context, either in general or focusing on a particular phrase or word, as a way to figure out the meaning of unknown idioms. The subjects from both groups used guessing from context 190 times. This strategy, however, was subdivided into two categories: guessing from/using global context and focusing on a keyword/phrase from context, allowing the researcher to examine the thought processes of the participants in more detail. The subjects from the first group relied mainly on the global context to aid them in figuring out the meaning of the idiom. For example, "Lorenco is *aguafiestas* and he thinks that other people are going to spend too much money and it is not going to be worth it" (NNS2 group A). They did this in 77 instances. On the other hand, the participants from the second group preferred to focus on a particular word or phrase from the context to help them work out the meaning of the idiom in question. For example, for the idiom *poner el casabel al gato* (lit. 'to put a bell on the cat') the particular L2 speaker focused on the

information in the context, paying attention to specific words such as *atreverse* beforehand: *alguien debe atreverse* 'someone should dare'" (NNS2 group B). The L2 learners from the second group used this sub-strategy 45 times. It is interesting to note that even though the second group was given the literal meaning of the constituents within the idiomatic phrase upon request, they still used guessing from context as their main strategy. Nevertheless, knowing the literal meaning of the words helped them provide more accurate answers in comparison with the other group that did not have the same advantage. For example, for the idiom *voy a meterme en camisa de once varas* (lit. 'to put on a shirt 9 meters long'; fig. 'to bite off more than one can chew'), one participant from the first group, who was not told the literal meaning of the constituents, gave the following answer: "I would be doing injustice if I try to define the musical style because I'm simply unable to do that. I'm not familiar with the idiom and I don't know what *11 varas* is trying to say" (NNS5 group A). On the other hand, the participants in the second group were given the literal interpretation of the individual words within the phrase upon request. The subject was told that *varas* is a medieval unit of measurement for length. One *vara* is equal to 33 inches. Once the participant found out the literal meaning of the words, s/he made the following comment while working out the meaning of the same unfamiliar idiom. "A shirt that long would be too big, it doesn't fit well, so it may be that he is not the right person to describe the style of music" (NNS4 group B).

5.10.2. Strategy 2: Idiom-based

The second most common strategy was idiom-based. The subjects focused on the different aspects of the idioms to try to work out their meanings. Some of the L2 learners focused on the literal meaning as a way of comprehending the figurative one. For example, "the idiom itself *tener la sarten por el mango* 'hold the frying pan by the handle' means to have a steady

grip on it" (NNS5 group A). Others directed their attention to a particular key word as a way of guessing the meaning of the fixed phrase. For example, for the idiom *soltar la lengua* (lit. 'to loosen the tongue,' fig. 'to spill the beans'), one participant explained that she focused on a particular word from the expression "because of a word in the idiom, *lengua"* and continued on to elaborate how she interpreted the idiom, "speaking when you should not or speaking when letting something out of your mouth knowing that it is going to cause problems later" (NNS1 group B).

Other subjects preferred to discuss and paraphrase the idioms. For example, for the idiom *tenerme con el alma en un hilo* (lit., 'to have somebody with his/hers soul on a thread,' fig. 'to be on pins and needles'), one of the participants gave the following answer: "Just by the actual definition of the words…*soltar* 'to let go of something' *y la lengua* 'tongue'…or when talking, to speak freely. It's the idea of speaking openly about something, without restrictions" (NNS7 group A). Yet, there were those who connected the idiom in question with others, either in English or Spanish, based on phonological and semantic similarities. For example, in attempting to interpret the Spanish idiom, *pan comido* (lit. 'eaten bread,' fig. 'piece of cake'), one participant mentioned, "Easy as pie. It is not a direct translation but *pan*-pie, kind of similar" (NNS2 group A).

The participants from the first group preferred to make use of the literal meaning of the idiomatic expression as the most predominant idiom-based sub-strategy. They employed it 22 times. The L2 learners from the second group, on the other hand, preferred to focus on a key word within the phrase and used that sub-strategy 24 times. Both groups discussed and paraphrased the idioms the same number of times (7). The second group connected the idiom they were working with to another one three times, whereas the first group employed this

technique eight times. In addition, the two groups would often combine the sub-strategies in this category to help them understand the meaning of the unknown idiom. For example, for the idiom *pan comido* (lit., 'eaten bread,' fig., 'piece of cake') one participant used simultaneously two idiom-based sub-strategies to figure out the meaning of the idiom, first focusing on the literal meaning of the phrase 'eaten bread' and then discussing and/or paraphrasing the idiom. "Eaten bread…It's obsolete because when you think of eaten bread, it's something that is not new" (NNS4 group B).

5.10.3. Strategy 3: Visualization

Visualization was used a total of 13 times by both groups. For example, one participant shared that s/he is very visual and often mentally pictures the idioms. "I see him walking and almost doing circles, basically going in circles and not answering the questions directly" (NNS7 group A). In this case, the subject was working on figuring out the meaning of the idiom *andarse con rodeos* 'to beat around the bush.'

5.10.4. Strategy 4: Pragmatic Knowledge

Making use of pragmatic knowledge was the third most commonly employed strategy. The participants in the first group used this 18 times; the subjects from the second, 15 times. For example, while trying to figure out the meaning of the idiom *soltar la lengua* (lit., 'to loosen the tongue'), one participant used his/her knowledge of the Bible, in particular a verse from King James (16:11): "to loosen your tongue is to allow yourself to speak" (NNS1 group A) to better understand the meaning of the idiom in question.

5.10.5. Strategies 5 and 6: Conceptual Metaphor and Guessing

Conceptual metaphor and guessing were the two least-used strategies. Only three subjects resorted to guessing because the information from the context and the idiom was not useful to

them. Only one L2 learner mentioned a conceptual metaphor in reference to the idiom *tener la sarten por el mango*. S/he explained that "one often associates hot things with pressuring someone; a heated frying pan made me think of that" (NNS5 group B).

Using context, an idiom-based strategy, and pragmatic knowledge were the three most common strategies used by both groups. They were employed 94.85% of the time as the subjects tried to figure out the meaning of the unknown idioms.

5.11. Previous Studies and Discussion

In this section, I compare the current study with previous studies in order to examine similarities and differences in terms of the strategies used by the L2 learners from various levels. It is important to note that there is no uniformity in the labeling of the strategies from study to study and, because of that, various labels can be used to name the same strategy. For example, background information and pragmatic knowledge both refer to the speakers' experiences in life and how they use them to figure out the meaning of the unknown idioms in the L2. The table below summarizes the most common strategies used in the five studies.

Table 5.6. Common Strategies Identified in Previous Studies

Cooper 1999	Bulut and Celik −Yazici 2004	Liontas 2002	Rohani et al. 2012	Current Study
Various levels of L2 learners	Near-native L2 Learners	3rd-year L2 learners	Advanced L2 learners	Near-native L2 learners
1. Guessing from context	1. Guessing from context	1. Guessing from context	1. Focusing on a key word within the idiom	1. Guessing from context
2. Discussing and analyzing the idiom	2. Literal meaning of the idiom	2. Connecting to other idioms	2. Reference to context	2. Idiom-based strategy
3. Using the literal meaning of the idiom	3. Background knowledge	3. Translation	3. Background knowledge	3. Pragmatic knowledge

Cooper 1999 also reported that guessing from context was the most often sought strategy by the L2 learners (26%) in his study. Liontas 2003 obtained similar results, too, once he added context, rendering the use of contextual information the most preferred strategy by his participants (34%). On the other hand, the Rohani et al. 2012 study placed reference to context as the second most frequent strategy after focusing on key words within the idiom in the group that lacked visual stimulation, which is the opposite of what the other studies have reported so far. Additionally, the second most common tactic in Cooper's study was related to the idiom itself. His subjects discussed and analyzed the idioms as a way of figuring out their meanings. The current study also ranked second the use of idiom-based strategies. However, in this case the subjects made greater use of the literal meaning of the phrase as a step toward guessing the figurative meaning of the phrase, which, in turn, is the third most used strategy in Cooper's study. Liontas found that the strategy of connecting an idiom to other idioms, i.e., an idiom-based strategy, was ranked as the second most frequent. Bulut and Celik Yazici's findings demonstrated that the near-native L2 speakers used background knowledge as the third most preferred strategy. Preference for this strategy was also observed in the Rohani et al. study as wells as in the current one. It seems that advanced and near-native L2 speakers also make use of their pragmatic knowledge as a way of understanding unfamiliar idioms in the L2 instead of relying only on context and idiom-based strategies.

In sum, the four studies have identified the three most often sought strategies by the L2 learners, which are using contextual information, an idiom-based approach, and, as learners become more proficient in the L2, using background knowledge in addition to the other two strategies. Depending on the study, however, those techniques may change rank. The results of some studies, (e.g. Cooper 1999, the current study) place contextual information as the most

frequent technique, and others (e.g., Rohani et al. 2012) give preference to the idiom-based strategies according to their data. Nevertheless, such similarity in the findings suggests that L2 learners may indeed use techniques that are universal rather than being language- or even culture-specific. In the following chapter, I discuss the research questions posed earlier.

CHAPTER 6

CONCLUSIONS

In this chapter, I discuss the findings of the two studies in light of the research questions posed. After that, I discuss the specific contributions of the study to our understanding of idiom processing in L2 acquisition, some pedagogical applications, and some of the shortcomings of the studies. Finally, I offer some directions for future research.

6.1. L2 Familiarity of Common Idioms

The first research question asked "How familiar are the L2 learners with this particular group of common idioms?" The results revealed that in general the L2 speakers were familiar; although at various digress, with the idioms that were chosen for this study.

The graph below demonstrates the percentages for the three types of idioms that were given to the two test groups.

Graph 6.1. Learner idiom production Experiment 1

■ verb omitted   ■ noun omitted
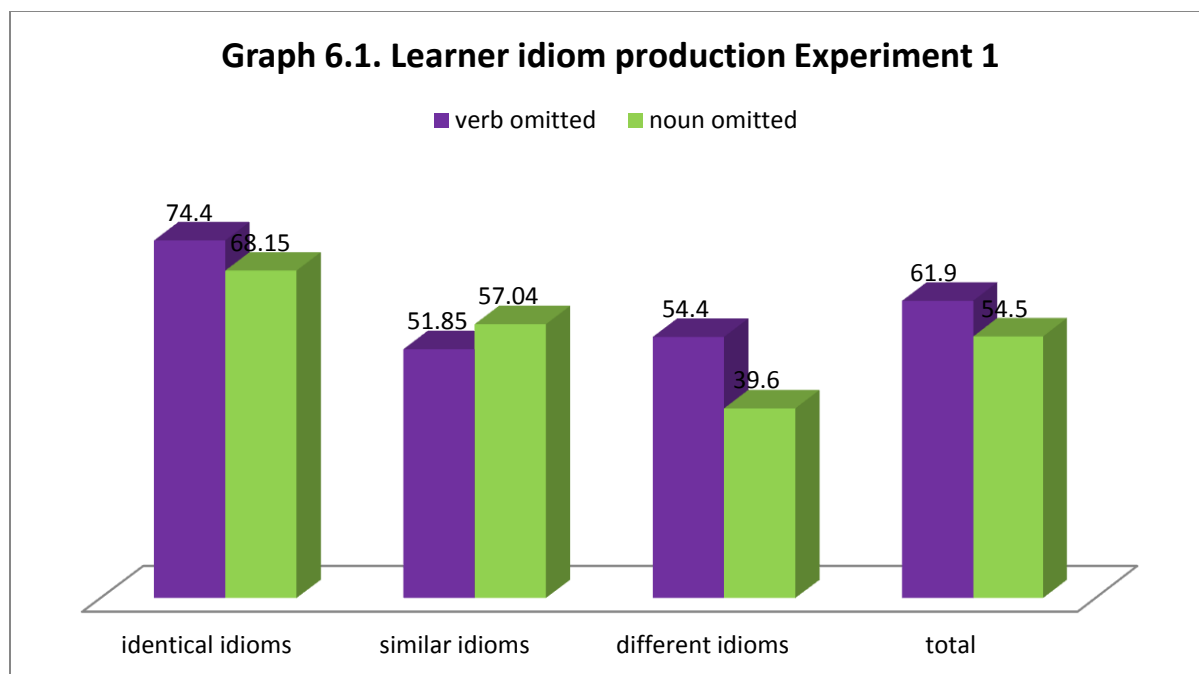
The L2 learners were able to produce correctly 74.4% of the identical idioms where the verb was omitted. Those were followed closely by the group of the identical idioms in which the noun was missing. The success rate for that particular group was 68.15%. In addition, the participants from the missing noun group were more successful at supplying the missing noun (57.04%) than the group with the omitted verb, which showed the most interference from the L1 while trying to supply the necessary constituent, averaging a total of 51.85% for the similar idioms. This outcome was not unexpected, because previous studies (e.g., Irujo 1986) also found that in discourse completion tasks, subjects tend to get most interference from the L1 when the idioms are similar, due to the fact that speakers have a difficult time managing the small differences between the idioms in the two languages. It is interesting to note that the participants from the first group were much more successful at reproducing the necessary verb when the idioms are dissimilar in both languages. They succeeded 54.4% of the time. This however, was not the case when the noun was omitted. The subjects had the most difficulty providing the necessary noun when the idioms were different, either because they had never encountered the

particular idioms, or because they did not know the vocabulary, although their answers, in general, showed that they understood the concept. The success rate, however, was the lowest for the three types of idioms, averaging just below 40%. In sum, the L2 learners were most familiar with the identical idioms followed by the similar ones for the noun group and the different ones for the verb group. They were least familiar with the different idioms in the noun group and similar idioms with the verb group.

6.2. Meaning and Structure in Idiom Recognition/Production

The second research question asked "Does the degree of similarity in meaning and structure of the idiomatic phrases in L1 and L2 play any role in the recognition and production of idioms?" The degree of similarity was vital for the successful production of idioms even when the subjects had the opportunity to see the literal translation of the missing constituent. Consequently, the level of likeness between the two languages allowed the subjects to make a positive transfer from their L1 onto the L2 when they had to provide the missing constituent while working with the identical idioms. This was true of both groups, although it proved easier to produce missing verbs than missing nouns. The subjects from both groups resorted to seeing the literal translation as a way to provide an answer for the particular idiom in the fill in the blank task far fewer times when the idioms were identical. As a result, they were most successful in the production of this type of idiom. The success rate for the omitted verb reached 74.4%, and for the missing noun, 68.15%.

The subjects experienced a greater negative transfer while attempting to reproduce the missing constituent in the group of similar idioms, as predicted by Irujo 1986 and Liontas 2002. This phenomenon occurred because the idioms differ in small details in the two languages, and if the L2 learners are not highly familiar with them and rely on decomposing this type idiom, they

are likely to attempt to fill in the blanks with the information from their L1. For example, when the participants had to provide the missing noun in the idiom *llover a cántaros,* some of them wrote *gatos* ('cats') as a possible answer because they were not sure how to complete the word string in Spanish but knew the English equivalent, "to rain cats and dogs." Unfortunately, since both languages differ in the noun phrase for this concept, they were not able to successfully provide the correct answer form the first try. Interference from the first language was most notable in the similar idioms, which accounts for the lower scores in this category. The participants' success rate ranged from 51.85% for the first group to 57.04% for the omitted noun group.

The L2 learners could not take advantage of the positive transfer in working with the different idioms, which forced them to rely much more on their translation skills once they saw the literal meaning of the missing constituent in English. In this case, the degree of dissimilarity in construction and meaning between the two languages hindered the successful production of the missing constituents. This was especially true for the missing nouns, as the exercise required extensive vocabulary knowledge of infrequent words, as well as greater familiarity with the different idioms in Spanish in general. The participants were able to provide the missing noun 39.6 % of the time. They did better when supplying the necessary verb, resulting in successful reproduction of the different idioms 54.4 % of the time.

6.3. Verb or Noun as Idiom Key Word

In focusing on the idiom key word for recognition and production, the third research question proposed was "If either the verb or the noun phrase is omitted, which one of the two constituents will act more as an 'idiom key word'? Which of the two constituents will aid more in the recognition and production of the idiomatic expression?" The results from the first

experiment demonstrate that it was easier to produce the missing verb than the noun in the fill in the blank task, even when the subjects are given the option to see the literal translation of the missing constituent. It can be argued that frequency and familiarity facilitated the more successful production of the verbs in the first experiment. Also it seems that the subjects were aware of the greater chance for some verbs to occur in idiomatic expressions than others.

As was noted earlier, the L2 learners needed to know only 17 very common verbs in order to correctly supply the missing word, such as *dar* 'to give', *romper* 'to break', *jugar* 'to play', *lavar* 'to wash', *echar* 'to throw', *mandar* 'to send', *tomar* 'to take, to drink,' etc., although not all of the verbs were easy to translate. For example, the English verb *to throw* has several possible translations into Spanish: *lanzar, echar, tirar, arrojar*. However, depending on the idiomatic phrase, only one of two of those verbs will be acceptable options, e.g., *tirrar/arrojar la toalla* 'to throw in the towel', *lanzar* or *echar* are not acceptable options in this phrase. Another example is *echar/tirar la casa por la ventana*: *echar* and *tirar* are acceptable variants, but not *lanzar* or *arrojar*. Nevertheless, another possible option is *botar* 'to boot' *la casa por la ventana.* The nonnative speaker is faced with the great burden of having to figure out which word combinations in the second language will result in idiomatic expressions and which ones will not work.

The missing nouns, on the other hand, were much more difficult to reproduce because only a handful of them enjoyed the same frequency and familiarity as the verbs do. Since idioms are peculiar expressions, many of which allow for very little variation in their constituents, the L2 learners needed to have a rich vocabulary, especially when it came to providing the necessary nouns. The nouns were also more problematic to translate on certain occasions, especially when the idioms were dissimilar in the two languages. What made matters worse was that some words

can be translated several different ways in Spanish, and the subjects had difficulties predicting which one of the possibilities was the correct word. For example, in the literal translation of the idiomatic expression 'to throw wood to the fire' ('to add fuel to the fire') the word *wood* can be translated several different ways into Spanish: *madera, leña, leño*. *Madera* is the most common collective word and is introduced at the beginners' levels of Spanish, so it is recycled the most throughout the different levels of L2 acquisition. Nevertheless, the word that is necessary to complete the idiomatic phrase is *leña*: *echar leña al fuego*. This particular word is not as frequent as *madera*, therefore it will be more difficult to rely on the literal English translation to figure out the less common Spanish noun. Also, the L2 speaker may be familiar with the general concept but not with the specific word.

Since the verbs were easier to produce, it can be hypothesized that the nouns are acting as idiom key words because they facilitated the production of the correct verb, especially when the idiomatic phrases were similar or different in the L1 and L2. When the noun phrases were present but the verbs were omitted, the L2 learners took advantage of the richer semantic information that was carried by the noun, which led them to make more educated guesses about the missing verb. For example, the idiom *no tener pelos en la lengua* was reproduced with greater success when the verb was omitted (e.g., *no _____ pelos en la lengua*) than when the noun was omitted (e.g., *no **tener** en _____ la lengua*). The subjects were able to supply the necessary verb 88.9 % of the time, whereas the missing noun was produced correctly only 48.1% of the time. When the verbs were present, they did not provide enough semantic information to facilitate the production of the missing noun. In addition, the subjects were more likely to take advantage of the option to see the literal translation of the missing word when the noun was omitted. This happened 125 times versus 104 when the verb was omitted. This was especially

true for the different idioms— because these idioms differ in semantic and syntactic structures, the L2 learners could not take advantage of their knowledge of idiomatic phrases in the L1. Also, the learners were not able to predict the meaning of the missing noun constituent, especially if they were not familiar with the idiom beforehand. As a result, the nouns aided more in idiom recognition and production than the verbs.

6.4. Strategies for Interpreting Figurative Meaning

Research question number four asked "What strategies in particular do the L2 learners of Spanish use in order to arrive at the correct figurative meaning of an unknown idiom given within a context?" After analyzing the data from the think-aloud protocols, it became clear that the subjects preferred to use six strategies: using context, idiom-based strategy, visualization, conceptual metaphor, pragmatic knowledge, and guessing in general.

It needs to be noted, however, that the subjects often used more than one strategy at a time, especially if they were able to relate what they were reading to some previous personal experience. For example, many of the participants made use of their pragmatic knowledge when they read a paragraph related to politics and then looked for clues either in the text or in the idiom itself to help interpret its meaning. One of the L2 learners made the following comment while working out the meaning of the phrase *andarse con rodeos*: "When it says *engañar a los lectores* (to cheat the voters), that is a typical accusation in politics; makes the other person not be direct. I followed politics for 25 years." Here the subject made a simultaneous use of a key word within the context (*engañar*) and relied on his/her pragmatic knowledge about politics and how politicians treat the electoral vote.

Nevertheless, the most common single strategy employed by the L2 learners was guessing from context, which was achieved by either focusing on a clue word or phrase or using

global context. This strategy was used 51.71% of the time. The second most common strategy was using the idiomatic phrase as a clue. It accounted for 34.05% of the strategies used in general. This tactic has several subcategories: using the idiom's literal meaning, focusing on a key word, discussing the idiom, and connecting to other idioms. The third most common technique was using pragmatic knowledge to work out the meaning of the idioms. This strategy was used 9% of the time. The other three strategies: visualization, conceptual metaphor, and guessing in general were used far less. Their combined usage for those strategies was a little more than 5%.

6.5. Literal Meaning as a Strategy

The fifth research question dealt with the strategy of offering help with unknown idioms by giving participants the literal meaning of words and asked "Will there be any difference between the two groups in terms of strategies used when one of the groups is given the literal meaning of the words within the idiomatic phrase?" The use of the three most common strategies—using context, idiom-based, and pragmatic knowledge—accounted for 95% of the total techniques applied in the think-aloud study. However, because there is an unequal number of participants in the two groups, nine and eight respectively, and some of the idioms were known to some of the subjects (who provided the meaning of the idiom immediately without applying any strategies), I calculated the use of the most common strategies in percentages for the two groups which are given in table 6.1.

Table 6.1. Frequencies of the Most Common Strategies

	Main Strategy: using context	Main Strategy: idiom-based	Main Strategy: pragmatic knowledge
Group A	53.9%	31.06%	9.3%
Group B	49.4%	36.8%	8.6%

As was mentioned previously, the most frequently employed strategy was using context as a way of figuring out the meaning of the idiom. Group A used this strategy more often because the participants within this group were not given the literal translation of the individual constituents of the idioms, so they had to rely on context to understand the unfamiliar idioms. However, even when the L2 learners knew the meaning of the individual words within the phrase, they still preferred to use context as the main strategy to aid them in interpreting the idiom. Nevertheless, Group B used the idiom-based strategy a bit more often than group A. This may be due to the fact that they were familiar with all of the words within the idiomatic phrases, given that they could request their literal meaning. It is interesting to see that the use of pragmatic knowledge as a strategy in both groups was very similar: the two average around 9%.

In order to better understand whether there was any difference in the use of strategies when one of the groups was allowed to request the literal meaning of the constituents within the idioms, I'll examine the sub-strategies employed in the context and idiom-based categories.

Table 6.2. Usage of Sub-strategies

	Main Strategy: using context		Main Strategy: idiom-based					Main Strategy: pragmatic knowledge
Sub-strategies	1a Global context	1b Focusing on a key word/phrase from the context	2a Focusing on the literal meaning of the phrase	2b Focusing on a key word within the phrase	2c Discussing, paraphrasing, analyzing the idiom	2d Connecting to other idioms – seems/ looks like/sounds	Multiple sub-strategies	
Group A	74.03%	16.34%	36.06%	19.67%	11.47%	13.11%	19.67%	9.3%
Group B (was given the literal meaning of the	47.67%	52.32%	24.06%	38.46%	10.7%	4.6%	20%	8.6%

constituents)							

The participants from group A preferred to look for clues about the meaning of the idiom by focusing on the global context, whereas the subjects from group B used global context and key words in context fairly equally. The L2 learners from the first group focused on particular key words in context far less frequently. The participants in both groups also made use of the different sub-strategies from the second most common technique. As can be seen in the table above, group A preferred to focus on the literal meaning of the idiomatic phrase as a whole, whereas the participants from the second group made greater use of the particular key words within the idioms. Both groups employed multiple sub-strategies equally from this category, although the subjects from group A were more likely to make connections with other idioms in the L1 and L2. While there was no change in the use of the main strategies, the subjects showed differences in the use of the sub-strategies. When one of the groups was given the chance to inquire about the literal meaning of the individual words within the unfamiliar idiom, they made a greater use of key words both within the idioms and context, whereas the other group preferred to take a more universal approach and gather meaning from global context and the literal meaning of the idiomatic phrase.

6.6. Length of Time in Spanish-Speaking Country

The final research question addressed the impact of exposure to naturalistic input on the acquisition of L2 idioms and asked "Does the length of time spent in a Spanish-speaking country have any influence on the recognition and production of idioms, regardless of the similarities and

dissimilarities with the speakers' native language?" This question is discussed in light of the first study only because in the second experiment the participants were asked to interpret the meanings of idioms unknown to them.

Of the eighteen L2 learners, twelve indicated that they had been to a Spanish-speaking country for various lengths of time. Some of the subjects had stayed in the country for as little as five weeks; others for as long as four years, bringing the average time spent abroad to 14 months. The table below summarizes the average time spent abroad in a Spanish speaking country along with the individual scores from fill in the blank in the first experiment.

Table 6.3. Average Time Spent Abroad

| Learners	Score	Time spent in a Spanish-speaking country	Learners who have never been to a Spanish-speaking country	Score
GA6	63/75	48 months	GB7	51/75
GA9	53/75	4 months	GA4	44/75
GA1	52/75	36 months	GB1	41/75
GB6	50/75	6 months	GA5	40/75
GB2	49/75	17 months	GB9	37/75
GA8	47/75	6 months	GB5	31/75
GB8	46/75	1 month		
GA3	42/75	6 months		
GA2	39/75	5 months		
GA7	38/75	4 months		
GB4	35/75	22 months		
GB3	28/75	12 months		

Researchers such as Schmitt and Carter (2004:4) have proposed that idioms are best acquired in a naturalistic environment in which the target language is spoken as opposed to in the classroom. It is generally believed that L2 learners will "pick-up" idioms from exposure to the second language, so that there is no reason for figurative language to be explicitly taught in the classroom. The "best way to acquire phraseological competence is when the learner integrates into the particular culture because the context appropriate application of colloquial phrases cannot be learned from textbooks, but only through participation in real-life communicative events" (Dorney, Durow & Zahran 2004:86). Such assumptions prompted the question of whether the time spent in a Spanish-speaking country would have a positive influence on the participants' ability to correctly produce the idioms in the first experiment.

According to the demographic information and the scores from the first study, the participants who spent time abroad outperformed the ones who did not live in a Spanish-speaking country on the idiom-production task. The participants who had spent at least a year abroad did better in the first experiment. For example, the subject with the highest scores (63 out of 75) spent four years in Spain. Also, the participant with the third highest score of 52 indicated that he/she had spent extensive time (three years) in a country where the target language is spoken officially. Nevertheless, there were also two other subjects who had indicated that they stayed in a Spanish-speaking country for 12 and 22 months respectively, but they performed rather poorly on the fill in the blank task. The participant who spent a year abroad scored 28 out of 75 points, making it the lowest score among all of the L2 participants. The other subject who was abroad for almost two years also had a low score of 35, which is the third lowest for all of the participants. On the other hand, the participants who indicated that they had been to a Spanish-speaking country for six months or less had scores similar to the L2 learners who had

never been to a country in which Spanish is the official language. The first group (consisting of those who were in a Spanish-speaking country for six months or less) averaged 45 out of 75 points, whereas the group with the L2 learners who had not visited such a country averaged 41 out of 75 points.

Linear regression (Graph 6.2.) was performed to compare the two groups of participants from the first experiment in order to determine whether there is a correlation between time spent in a Spanish-speaking country and individual success rate for the fill-in-the-blank task. The first group consisted of the subjects who have spent time in a Spanish-speaking country, and the group was made up of the patricians who have never been in a Spanish-speaking country. The results indicated that the few scores out to the right representing "significant" time abroad definitely have high influence on the rest of the model.

Graph 6.2. Time Spent Abroad and Individual Success Rate, Experiment 1
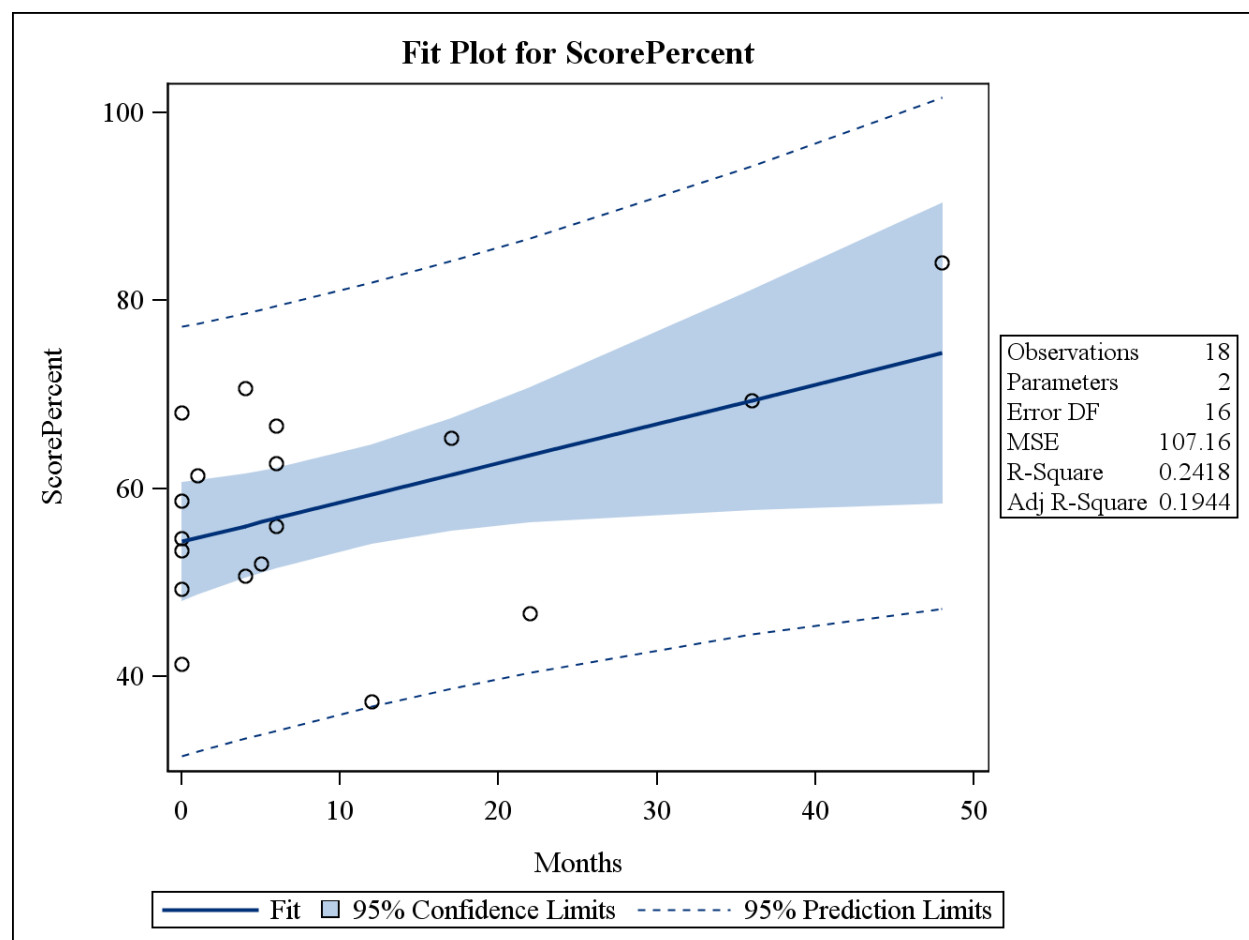
The parameter estimates from the t-test (Table 6.4.) also indicated that the score tends to go up, on average, by 0.42% for every one month spent abroad. Those results show that, in general, an L2 learner will improve his/her idiomatic knowledge if he/she spends more time abroad but extended periods of time of at least a year and a half (preferably longer) in a country in which the target language is spoken, is where the greatest impact on idiomatic knowledge occurs.

Table 6.4. Parameter Estimates: Time Spent Abroad

Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr > |t|
Intercept	1	54.34696	2.98282	18.22	<.0001
Months	1	0.41769	0.18493	2.26	0.0382*

In contrast, the group of nonnative speakers who had learned Spanish only from formal exposure in the classroom provided proof that an L2 learner is capable of learning some idiomatic expressions when taught in the classroom instead of acquiring them solely in a naturalistic environment. Furthermore, it is best to introduce idioms from the very beginning of L2 acquisition to raise the L2 learner's awareness of the existence of such phrases and to lay a good foundation for learning them. It is important that educators call attention to such unique lexical structures because they are prevalent in daily language. Teaching idioms in the classroom should be considered an integral part of second-language acquisition. Raising idiomatic awareness in the classroom through cultural metaphor theory and introducing students to etymological elaboration are two ways of helping them learn and retain idioms for longer periods of time. Additionally, visiting and/or living in a country in which the target language is spoken should serve as a way of expanding L2 learners' idiomatic knowledge instead of deeming it the only possible way to learn idioms in the L2.

6.7. Contributions of the Present Study

The present study has examined the cognitive process and overall idiomatic comprehension of a group of near native speakers of Spanish with L1 English. Due to the general belief that this type of L2 speaker has a very good idiomatic knowledge in the L2, they have rarely been studied, especially in languages other than English as an L2. The current study

revealed interesting data about the L2 speakers. Although they have a good overall knowledge of Spanish common idiomatic expressions, they are not nearly as proficient as the native speakers, especially when they have to work with idioms that are different semantically and syntactically in the native and target languages. In addition, the overall comprehension was affected by knowledge of single vocabulary words. The results revealed that less common nouns were especially taxing for the L2 speakers who were able to infer their meaning within the idiomatic phrase but unable to produce them in a fill in the blank task. The nouns were semantically richer, and because of that the subjects relied on them as a way of figuring out the meaning of the idiomatic phrases which also led them to a more successful production of the missing constituents when the verb was omitted. Those findings let us to conclude that the head noun in the idiomatic phrases, especially in the similar and different idioms, serves as a key word that enhances comprehension and triggers idiomatic recognition.

Another interesting finding was that near native L2 speakers process familiar idioms the same way native speakers do, i.e., they process them figuratively without relying on their literal knowledge. Those results are in direct contradiction with the findings of Cieślicka 2006 and Siyanova-Chanturia et al. 2011. The difference probably stems from the fact that in this study the subjects are near-native speakers whereas the other studies have tested advanced learners of L2. However, Liu (2008:74) also stipulated that when native speakers and L2 learners encounter a familiar idiom, they may bypass the linguistic analysis, i.e., choose not to analyze the idiom semantically or syntactically and instead resort to direct memory retrieval. It seems that when L2 learners improve their overall language proficiency advancing to a near-native acquisition of the L2, they also begin to process familiar idioms figuratively and do not rely on computing the literal meaning of the word string first before rejecting it to activate the idiomatic one.

6.8. Future Studies

It will be of interest to study in greater detail how near-native L2 speakers process familiar idioms to reaffirm the current results, i.e., that they process familiar idioms figuratively without resorting to linguistic analysis because such phrases are already stored in their mental lexicons as long words and are easy to retrieve. In addition, I would like examine whether the degree of syntactic and semantic similarity between the native and target languages will have any effect on the way the familiar idioms are processed. Another question to be studied is whether context will affect figurative processing of the familiar idioms in the L2.

6.9. Shortcomings of the Study

Some of the shortcomings of the study are the small population sample of both L2 learners and native speakers. A larger number of participants in each group for both experiments would have given the researcher more complete and diverse data to work with. However, even in a small pilot study such as this, the results are still valid as they are confirmed by comparison to previous studies on the subject. Another shortcoming of the first study is that the idioms included in the experiment differ in frequency, although all of them are common ones. On the other hand, it is very difficult to find a large enough group of idioms that meets the two criteria of frequency across all Spanish-speaking countries and at the same time fits the similarity standard proposed by Irujo between the L1 and L2. A more unified translation of the literal meaning of the constituents in the idiomatic phrases might have been of greater help to the subjects in the first study, although the researcher intentionally used the most common literal translation found in dictionaries. The problem with that is that the different dictionaries offer different literal and figurative interpretations of the idioms. Nevertheless, the small variation in translation of some of the same words (e.g., *pata* was translated in one instance as foot and in another as leg and

paw) was done as a way to confirm that in some instances the L2 learners will rely on translation as a way of figuring out the missing constituent, as well as use it as a last resort to provide the correct answer for the idiom in question.

6.10. Conclusions

The aim of the first experiment was to study how well L2 learners of Spanish know common idiomatic phrases in the target language, since idioms are rarely taught in the classroom due to the general belief that the L2 learner will pick up such peculiar expressions of metaphoric language through exposure in a naturalistic environment, such as living in a country where the target language is spoken officially. Interestingly enough, the study showed that idiomatic knowledge is not strongly correlated to time spent in a Spanish-speaking country unless the L2 learner has spent more than a year and a half abroad. This finding raises a question about the optimal length of time one should spend in the target county in order to acquire native-like use of idiomatic language.

The first study also showed that L2 learners are most familiar with identical idioms because they can transfer their idiomatic knowledge from the native language onto the target one. Such transfer, however, is not possible when the idioms are dissimilar in both languages. Nevertheless, the subjects showed that although they do not know the specific word necessary to complete the idiomatic phrase, they understand the underlying conceptual metaphor. Even though the subjects were fairly successful in producing the identical idiomatic expressions, their knowledge of the similar and different idioms in the L2 is somewhat lacking in comparison.

The second experiment demonstrated that L2 learners from both groups rely on contextual information in order to figure out the meaning of an unknown idiom. The idiom-based strategy is the second most frequent technique used by the L2 learners. With this strategy, the

subjects often make use of the literal meaning of the idiom or choose to focus on a key word in order to comprehend the figurative meaning of the fixed phrase. The difference between the two groups demonstrated that knowing the literal meaning of the individual words within the idiomatic phrase will influence the sub-strategies the L2 learners employ when working out the meaning of the unfamiliar word string. The strategies used by the participants in the two groups during the think-aloud protocols also showed that they are influenced by familiarity with vocabulary in general. Therefore, instead of treating idioms as anomalies of language, foreign-language pedagogues should focus on teaching such phrases in the classroom and raise the metaphoric awareness of the L2 learners, because this type of fixed phrase is prevalent in every language, and native speakers use idioms in everyday speech.

REFERENCES

Abel, B. 2003. English Idioms in the First Language and Second Language Lexicon: A Dual

Representation Approach. *Second Language Research* 19(4):329–358 University of

Wuppertal.

http://ac.aua.am/lusine_nuryan/Public/First%20Langauge%20Acquisition/Abel%20B.%202003

%20English%20idioms%20in%20the%20first%20language%20and%20second%20language%2

0lexicon.pdf

Abdullah, K., & Jackson, H. 1998. Idioms and the Language Learner: Contrasting English and

Syrian Arabic. *Language in Contrast* 1 (1), 83-107.

Alemi, M., & Taybei, A. 2011. The Influence of Incidental and Intentional Vocabulary

Acquisition and Vocabulary Strategy Use on Learning L2 Vocabularies. *Journal of

Language Teaching and Research* 2 (1), 81-98.

Bagheri, M. S., & Fazel, I. 2010. Effect of Etymological Elaboration on the EFL Learners'

Comprehension and Retention of Idioms. *Journal of Pan-Pacific Association of Applied

Linguistics* 14 (1), 45-55.

Barkaoui, K. 2011. Think-aloud Protocols in Research on Essay Ratings: An Empirical Study of

Their Veridicality and Reactivity. *Language Testing* 28(1): 51-75.

Beker, S. C., & Mora, F. 1886. *Spanish Idioms with their English Equivalent Embracing Nearly

Ten Thousand Phrases.* Ginn and Company: Boston.

http://books.google.com/books?id=uO0RAAAAIAAJ&printsec=frontcover&source=gbs_ge_su

mmary_r&cad=0#v=onepage&q&f=false

Bobrow, S. A. & Bell, S. M. 1973. On Catching Onto Idiomatic Expressions. *Memory and Cognition* 1: 343-346.

Boers, F. 2000. Metaphor Awareness and vocabulary Retention. *Applied Linguistics* 21 (4), 553-571.

Boers, F., & Demecheleer, M. 2001. Measuring the Impact of Cross-cultural Differences on Learners' Comprehension of Imageable Idioms. *ELT Journal* 55 (3), 255-262.

Boers, F., Demecheleer, M., & Eyckmans, J. 2004. Cross- cultural Variation as a Variable in Comprehending and Remembering Figurative Idioms. *European Journal of English Studies* 8(3), 375-388.

Boers, F., Eyckmans, J., & Stengers, H. 2007. Presenting Figurative Idioms with Touch of Etymology: More Than Mere Mnemonics? *Language Teaching Research* 11 (1), 43-62. doi: http://ltr.sagepub.com/cgi/content/abstract/11/1/43/ August 19/2009

Boers, F., Lindstromberg, S., Littlemore, J., Stengers, H., & Eyckmans, J. 2008. Variables in the Mnemonic Effectiveness of Pictorial Elucidation. In F. Boers & S. Lindstromberg (Eds.) *Cognitive Linguistics Approaches to Teaching Vocabulary and Phraseology* 189-216. Berlin/New York: Mouton de Gruyter.

Boers, F., Piquer Píriz, A.M., Stengers, H., & Eyckmans, J. 2009. Does Pictorial Elucidation Foster Recollection of Idioms? *Language Teaching Researches* 13 (4), 367-382.

Bortfeld, H. 2003. Comprehending Idioms Cross- Linguistically. *Experimental Psychology* 50 (3), 217-230.

Bowels, M. 2010. *The Think Aloud Controversy in Second Language Research.* Routledge.

Bulut, T., & Celik-Yazici, I. 2004. Idiom Processing in L2: Through Rose-Colored Glasses. *The Reading Matrix* 4 (2), 104:114.

Cieślicka, A. 2006. Literal Salience in on-line Processing of Idiomatic Expressions by Second Language Learners. *Second Language Research* 22, 115-144.

Cooper, T. C. 1998. Teaching Idioms. *Foreign Language Annals* 31 (2), 255-266.

_____ 1999. Processing of Idioms in L2 Learners of English. *Tesol Quarterly* 33 (4), 233:262.

Conklin, K., & Schmitt, N. 2008. Formulaic Sequences: Are They Processed More Quickly Than Nonformulaic Language by Native and Nonnative Speakers? *Applied Linguistics* 29 (1), 72-89.

Csábi, S. 2004. A Cognitive Linguistic View of Polysemy in English and its Implications for Teaching. In M. Archard, & S. Niemeier (Eds.) *Cognitive Linguistics, Second Language Acquisition, and Foreign Language Teaching* 233-256. Berlin/New York: Mouton de Gryter.

Cacciari, C. & Tabossi, P. 1988. The Comprehension of Idioms. *Journal of Memory and Language,* 27: 668-683.

Cronk, B. & Schweigert, W. 1992. The Comprehension of Idioms: The Effects of Familiarity, Literalness, and Usage. *Applied Psycholinguistics* 13:131-146.

English Oxford Dictionary, 3rd Edition. Accessed 4/21/2013. http://www.oed.com/view/Entry/91031?redirectedFrom=idiom&

Deignan, A. 2003. Metaphorical Expressions and Culture: An Indirect Link. *Metaphor & Symbol* 18 (4), 255-271.

Deschambault, R. 2012. Thinking-aloud as Talking-in-Interaction: Reinterpreting How L2 Lexical Inferencing Gets Done. *Language Learning* 62(1): 266-301.

Dornyei, Z., Durow, V., & Zahran, K., 2004. Individual Differences and their Effectiveness on

Formulaic Sequence Acquisition. In N. Schmitt (Ed.) *Formulaic Sequences: Acquisition Processing and Use* 87-106. Philadelphia: John Benjamins Publishing Company.

Estill, R. B. & Kemper, S. 1982. Interpreting Idioms. *Journal of Psycholinguistic Research* 11:559-568.

Everaet, E.J., Van der Linden, Schenk, A., & Schreuder, R. (eds.) 1995. *Idioms: Structural and Psychological Perspectives.* New Jersey: Laurence Erlbaum Associates.

Fernando, C. 1996. *Idioms and Idiomaticity*. Oxford: Oxford University Press.

Flores D'Arcais, G. B. 1993. The Comprehension and Semantic Interpretation of Idioms. In C. Cacciari & P. Tabossi (Eds.). *Idioms: Processing, structure and Interpretation*.79-98. Hillside, NJ: Lawrence Erlbaum.

Fraser, B. 1970. Idioms within a Transformational Grammar. *Foundations of Language*, 6: 22-42.

Gibbs, R.W. 1980. Spilling the Beans on Understanding and Memory for Idioms in Conversation. *Memory and Cognition* 8:149-156.

_____1986. Skating on Thin Ice: Literal Meaning and Understanding Idioms in Conversation. *Discourse Processes* 9:17-30.

Gibbs, R.W. & Nayak, N. 1989. Psycholinguistic Studies on the Syntactic Behavior of Idioms. *Cognitive Psychology* 21:100-138.

Gibbs, R.W., Nayak, N., Bolton, & Keppel, M.1989a. Speakers' Assumptions About the Lexical Flexibility of Idioms. Memory and Cognition 17: 58-68

Gibbs, R.W., Nayak, N., & Cutting, C. 1989b. How to Kick the Bucket and Not to Decompose: Analyzability and Idiom Processing. *Journal of Memory and Language* 28:576-593.

Gluckberg, S. 1993. Idiom Meaning and Allusional Context. In Cacciari, C., Tabossi, P. (Eds.), *Idioms: Processing, Structure, and Interpretation*. 3-27. Hillside, NJ: Lawrence Erlbaum.

Grant, L. E. & Bauer, L. 2004. Criteria for Re-defining Idioms: Are We Barking up the Wrong Tree? *Applied Linguistics,* 25:38-61.

Giora, R. 1997. Understanding figurative and Literal Languages: The Graded Salience Hypothesis. *Cognitive Linguistics* 8, 183-206.

Guo, S. 2008. Differential Effects of Etymological Elaboration and Rote Memorization on Idiom Acquisition in College EFL Learners. *The Asian EFL Journal* 10 (3), 127-145.

Holcombe, J. 2007. Metaphor.

doi: http://www.textetc.com/criticism/metaphor-approaches.html January/2010.

Hockett, C. F. *A Course in Modern Linguistics*. New York: Macmillan.

Katz, J. J. & Postal, P. 1963. The Semantic Interpretation of Idioms and Sentences Containing Them. *MIT Research Laboratory of Electronic Quarterly Progress Report*, 70:275-82.

Irujo, S. 1986a. A Piece of Cake: Some thoughts on Learning and Teaching Idioms. ELT Journal 40, 236-42.

_____ 1986b. Don't Put Your Leg in Your Mouth: Transfer in the Acquisition of Idioms in a Second Language. *TESOL Quarterly* 20, 287-304.

_____ 1993. Steering Clear: Avoidance in the Production of Idioms. *International Review of Applied Linguistics in Language Teaching* 31 (3), 205-215.

Lakoff, G. 1987. *Women, Fire and Dangerous Things: What Categories Reveal about the Mind*. Chicago/London: University of Chicago Press.

_____ 1993. The Contemporary Theory of Metaphor. In A. Ortony, (Ed.) *Metaphor and Thought 2nd ed,* Cambridge: Cambridge University Press.

Laufer, B. 2000. Avoidance of Idioms in the Second Language: the Effect of L1-L2 Degree of Similarity. *Studia Linguistica* 54 (2), 186-196.

Leow, R. P., & Morgan-Short, K. 2004. To Think Aloud or not to Think Aloud: The Issue of Reactivity in SLA Research Methodology. *Studies in Second Language Acquisition* 26(1):35-57.

doi: http://dx.doi.org/10.1017/S0272263104026129   April/2013

Liontas, J. I. 2001a. That's all Greek to me! The Comprehension and Interpretation of Modern Greek Phrasal Idioms. *The Reading Matrix: An International Online Journal* 1 (1), 1-32.

_____ 2002a. Context and Idiom Understanding in Second Languages. *Eurosla Yearbook* 2 (1), 155-185.

_____ 2002b. Exploring Second Language Learners' Notions of Idiomaticity. *System* 30, 289-311.

_____ 2002c. Vivid Phrasal Idioms and the Lexical – Image Continuum. *Issues in Applied Linguistics* 13(1), 71-109.

_____ 2003. Killing Two Birds with One Stone: Understanding Spanish VP Idioms in and out of Context. *Hispania* 86 (2), 289-301.

Littlemore, J., & Low, G. 2006. *Figurative Thinking and Foreign Language Learning.* Basingstoke: Palgrave MacMillan.

Liu, D. 2008. *Idioms: Description, Comprehension, Acquisition and Pedagogy*. ESL & Applied Linguistics Professional Series. New York: Routledge.

Kövecses, Z. 2005. *Metaphor in Culture*. USA: Cambridge University Press.

Kövecses, Z., Benczes, R., & Csabi, S. 2002. *Metaphor: A Practical Introduction*. New York, USA: Oxford University Press.

Makkai, A. 1972. *Idiom Structure in English*. The Hague, the Netherlands: Mouton.

McVey-Gill, M., & Wegmann, B. 2007. *The Red Hot Book of Spanish Slang*. McGraw-Hill:
     New York.

Moon, R. 1998. *Fixed expressions and Idioms in English*, *A Corpus -based Approach.* Oxford:
     Clarendon Press

Nation, I.S.P. 2001. *Learning Vocabulary in Another Language*. Cambridge: Cambridge
     University Press.

Nunberg, J. 1978. *The Pragmatics of Reference*. Bloomington, IN: Indiana University
     Linguistics.

Nunberg, J., Sag, I.A., & Wasow, T. 1994. Idioms. *Language* 70:491-534.

Paivio, A. 1986. *Mental Representations*. Oxford: Oxford University Press.

REAL ACADEMIA ESPAÑOLA: Banco de datos (CREA) [en línea]. *Corpus de referencia del
     español actual.* http://www.rae.es

Rohani, G., Ketabi, S., & Tavakoli, M. 2012. The Effect on the EFL Learners' Idiom Processing
     Strategies. *English Language Teaching* 5 (9), 104-114.

Samani, E. R., & Hashemian, M. 2012. The Effect of conceptual Metaphors on Learning Idioms
     by L2 Learners. *International Journal of English Linguistics* 2 (1), 249-256.

Savaiano, E., & Winget, L. W. 2007. *Modismos Ingleses para Hispanos: English Idioms for
     Spanish Speakers.* Barron's Educational Series 2nd ed.

Siyanova- Chanturia, A., Conklin, K., & Schmitt, N. 2011. Adding More Fuel to the Fire: An
     Eye Tracking Study of Idiom Processing by Native and non-Native Speakers. *Second
     Language Research* 27 (2), 251-272.

Stengers, H. 2007. Is English Exceptionally Idiomatic? Testing the Waters for a Lexical

Approach to Spanish. In F. Boers, J. Darquennes, & R. Temmerman (Eds.). *Multilingualism and Applied Comparative Linguistics: Pedagogical Perspectives* 107-125. Newcastle: Cambridge Scholars Publishing.

Stengers, H., & Boers, F. 2008. A Quantitative Comparison of the English and Spanish Repertoires of Figurative Idioms. In F. Boers, & S. Lindstromberg (Eds.) *Cognitive Linguistics Approaches to Teaching Vocabulary and Phraseology* 335-374. Berlin/New York: Mouton de Gruyter.

Stengers, H., Boers, F. Housen, A., & Eysckmans, J. 2011. Formulaic Sequences and L2 Oral Proficiency: Does the Type of Target Language Influence the Association? *IRAL* 49, 321-343.

Schmitt, N., & Carter, R. 2004. Formulaic Sequences in Action: An Introduction. In N. Schmitt (Ed.) *Formulaic Sequences: Acquisition, Processing and Use* 1-22. Philadelphia: John Benjamins Publishing Company.

Schmitt, N. 2008. Instructed Second Language Vocabulary Learning. *Language Teaching Research* 12 (3), 329-363.

Swiney, D.A. & Cutler, A. 1979. The Access and Processing of Idiomatic Expressions. *Journal of Verbal Leaning and Verbal Behavior* 18:523-534.

Tabossi, P. & Zardon, F. 1993. The Activation of Idiomatic Meaning in Spoken Language Comprehension. In C. Cacciari & P. Tabossi (Eds.), *Idioms: Processing, structure and interpretation*. 145-162. Hillside, NJ: Lawrence Erlbaum.

Tabossi, P. & Zardon, F. 1995. The Activation of Idiomatic Meaning. In E. Everaet, E.J. Van der Linden, A. Schenk, & R. Schreuder (eds.), *Idioms: Structural and Psychological Perspective.* 273-282. Hillside, NJ: Lawrence Erlbaum.

Tabossi, P., Fanari, R., & Wolff, K. 2009. Why Are Idioms Recognized Fast? *Memory & Cognition*, 37(4): 529-540.

Titone, D.A. & Connine, C.M.1999. On Compositional and Noncompositional Nature of | Idiomatic Expressions. *Journal of Pragmatics* 31:1655-1674.

Vega-Moreno, R. 2005. Idioms Transparency and Pragmatic Inference. *UCL Working Papers in Linguistics.* October 14, 2009:

www.phon.ucl.ac.uk/.../Rosa%20VegaMoreno%20Idioms,%transparency%20andpregamtics.pdf

Verspoor, M., & Lowie, W. 2003. Making Sense of Polysemous Words. *Language Learning* 53, 547-586.

Weibel, P. 2004. *The Big Red Book of Spanish Idioms*. McGraw-Hill: New York.

Weinreich, U. 1969. Problems in the Analysis of Idioms. In J. Puhvel (Ed.), *Substance and Structure of Language.* 23-81. Berkley, CA: University of California Press.

Williams, L. 1922. *A Dictionary of Spanish Idioms with their English Equivalents*. London: Routledge

Wood, M. M. 1986. *A Definition of an Idiom*. Bloomington: Indiana University Press.

Wray, A. 2002. Formulaic Sequences in Second Language Teaching: Principle and Practice. *Applied Linguistics* 21 (4), 463-489.

Yorio, C. A. 1989. Idiomaticity as an Indicator of Second Language Proficiency. In K. Hyltenstam, & Obler, L. K. (Eds.) *Bilinguism Across the Lifespan* 55 -72. Cambridge: Cambridge University Press.

Zyzik, E. 2010. Sin pelos en la lengua: La adquisición de modismos en una clase de español como lengua extranjera. *Hispania* 93 (3), 453-470.

_____ 2011. Second Language Idiom Learning: The Effects of Lexical Knowledge and

Pedagogical Sequencing. *Language Teaching Research* 15 (4), 413-433.

Electronic Dictionaries

(No) dar el brazo a torcer. (n.d.). In *Collins Dictionary online*. Retrieved from:

http://www.collinsdictionary.com/dictionary/spanish-english/dar-el-brazo-a-torcer

(No) dar el brazo a torcer (n.d.). In *Diccionario Reverso*. Retrieved from:

http://diccionario.reverso.net/espanol-ingles/dar%20el%20brazo%20a%20torcer

(No) dar el brazo a torcer (n.d.). In *Wordreference*. Retrieved from:

http://forum.wordreference.com/showthread.php?t=1127133

(No) dar el brazo a torcer (n.d.). In *The Free Dictionary*. Retrieved from:

http://idioms.thefreedictionary.com/put+nose+in

No dar el brazo a torcer (n.d.). In *Casa de las Letras*. Retrieved from:

http://casadelas letras.com.ar/refranes

No dar el brazo a torcer (n.d.). In *Diccionario Español –Inlglés*. Retrieved from:

http://diccionario-espanolingles.com

Appendix A. EXAMPLES OF THE IDIOMS FROM EXPERIMENT I

Identical idiom: romper el hielo (literal translation 'to break the ice') 'to break the ice.'

6A. prensa/política/1997

El País: Clinton y Jiang se reúnen en la Casa Blanca

El artículo se trata de la reunión entre el presidente de los Estados Unidos, Bill Clinton, con el presidente de la República Popular de China, Jiang.

La reunión que Bill Clinton y Jiang Zemin iban a sostener anoche en la Casa Blanca no estaba prevista en el programa oficial. El encuentro informal, de carácter privado, fue un intento de _____ **el hielo** en la primera unión entre EEUU y China en los últimos 12 años.

6B. prensa/política/1997

El País: Clinton y Jiang se reúnen en la Casa Blanca

El artículo se trata de la reunión entre el presidente de los Estados Unidos, Bill Clinton, con el presidente de la República Popular de China, Jiang.

La reunión que Bill Clinton y Jiang Zemin iban a sostener anoche en la Casa Blanca no estaba prevista en el programa oficial. El encuentro informal, de carácter privado, fue un intento de _____ **el hielo** y mejorar las relaciones entre los dos países en la primera unión entre EEUU y China en los últimos 12 años.

6C. prensa/política/1997

El País: Clinton y Jiang se reúnen en la Casa Blanca

El artículo se trata de la reunión entre el presidente de los Estados Unidos, Bill Clinton, con el presidente de la República Popular de China, Jiang.

La reunión que Bill Clinton y Jiang Zemin iban a sostener anoche en la Casa Blanca no estaba prevista en el programa oficial. El encuentro informal, de carácter privado, fue un intento de _____ **el hielo** y mejorar las relaciones entre los dos países en la primera unión entre EEUU y China en los últimos 12 años.

literal translation: to break the ice
figurative meaning: to break the ice

GROUP 2A: Similar idiom: Verb different, Noun similar:

faltarle un tornillo (literal translation 'to be missing a screw') 'to have a screw loose.'

5A. literatura/novela/1995

Titulo: Donde van a morir los elefantes de José Donoso

El policía ha detenido a Gustavo y a su amiga Maud. Los han encontrado en un rio muy tarde en la noche con una anciana que era sacerdotisa. Ahora, el policía quiere saber por qué estaban en el río y qué hacían con la anciana.

La sacerdotisa continuó a decir tonterías y el otro uniformado me hizo una seña para indicarme que a la anciana parecía _____**le un tornillo**. Nos ayudaron a subirla en la furgoneta.

5B. literatura/novela/1995

Título: Donde van a morir los elefantes de José Donoso

El policía ha detenido a Gustavo y a su amiga Maud. Los han encontrado en un rio muy tarde en la noche con una anciana que era sacerdotisa. Ahora, el policía quiere saber por qué estaban en el río y qué hacían con la anciana.

La poderosa sacerdotisa continuó a decir tonterías y ya parecía a una lunática con la maraña de pelo, arrugas, venas azulosas y dientes artificiales. El otro uniformado me hizo una seña para indicarme que a la anciana parecía _____**le un tornillo**. Nos ayudaron a subirla en la furgoneta.

5C. literatura/novela/1995

Título: Donde van a morir los elefantes de José Donoso

El policía ha detenido a Gustavo y a su amiga Maud. Los han encontrado en un rio muy tarde en la noche con una anciana que era sacerdotisa. Ahora, el policía quiere saber por qué estaban en el río y qué hacían con la anciana.

La poderosa sacerdotisa continuó a decir tonterías y ya parecía a una lunática con la maraña de pelo, arrugas, venas azulosas y dientes artificiales. El otro uniformado me hizo una seña para indicarme que a la anciana parecía _____**le un tornillo**. Nos ayudaron a subirla en la furgoneta.

literal translation: to be missing a screw

figurative meaning: to have a screw loose

GROUP 2B: Similar idiom: Verb identical, Noun different: llover a cántaros/mares (literal

translation 'to rain pitchers/seas') 'to rain cats and dogs.'

20A. **literatura/novela/1991**
Danza del Jaguar de Ednodio Quintero
Dos de los protagonistas de la novela están discutiendo razones por las cuales uno se suicida.

Ramona, mi tía abuela, se mató porque no pudo soportar el ruido de la lluvia. Día y noche escuchaba **llover a** _____.

20B. **literatura/novela/1991**
Danza del Jaguar de Ednodio Quintero
Dos de los protagonistas de la novela están discutiendo razones por las cuales uno se suicida.

Ramona, mi tía abuela, se mató porque no pudo soportar el ruido de la lluvia. Día y noche escuchaba **llover a** _____, gota a gota, sin cesar. Se tapaba los oídos con cera pero aun escuchaba la abundante agua que caía sin parar.

20C. **literatura/novela/1991**
Danza del Jaguar de Ednodio Quintero
Dos de los protagonistas de la novela están discutiendo razones por las cuales uno se suicida.

Ramona, mi tía abuela, se mató porque no pudo soportar el ruido de la lluvia. Día y noche escuchaba **llover a** _____, gota a gota, sin cesar. Se tapaba los oídos con cera pero aun escuchaba la abundante agua que caía sin parar.

literal translation: it's raining pitchers
figurative meaning: it's raining cats and dogs

GROUP 3: Different idiom: estirar la pata (literal translation 'to stretch the leg/paw') 'to kick the bucket.'

23A. **literatura/novela/1995**
Donde van a morir los elefantes de José Donoso
Para la protagonista Ruby todo se resuelve con una especie de gran teatralidad. Se le ocurrió salir vestida de blanco, con un amplio delantal de la clínica, con echarpes, chales, magas enormes, todo flotante y demasiado grande.

Al caer su increíble figura de alas blancas pasó ante un balcón, donde un anciano muy enfermo estaba tomando sol, al ver que la Ruby caía, gritó "es el fin… un ángel…", y enseguida gritó de nuevo, sufrió una convulsión y acabó por _____ **la pata**.

23B. **literatura/novela/1995**
Donde van a morir los elefantes de José Donoso
Para la protagonista Ruby todo se resuelve con una especie de gran teatralidad. Se le ocurrió salir vestida de blanco, con un amplio delantal de la clínica, con echarpes, chales, magas enormes, todo flotante y demasiado grande.

Al caer su increíble figura de alas blancas pasó ante un balcón, donde un anciano muy enfermo estaba tomando sol, al ver que la Ruby caía, gritó "es el fin… un ángel…", y enseguida gritó de nuevo, sufrió una convulsión y acabó por _____ **la pata**. En su caída entonces la Ruby no se mató ella, sino mató a otras dos personas: al señor que ocupaba el auto, y al anciano que creyó ver un ángel blanco que desde el cielo venía volando a llevárselo.

23C. **literatura/novela/1995**
Donde van a morir los elefantes de José Donoso
Para la protagonista Ruby todo se resuelve con una especie de gran teatralidad. Se le ocurrió salir vestida de blanco, con un amplio delantal de la clínica, con echarpes, chales, magas enormes, todo flotante y demasiado grande.

Al caer su increíble figura de alas blancas pasó ante un balcón, donde un anciano muy enfermo estaba tomando sol, al ver que la Ruby caía, gritó "es el fin… un ángel…", y enseguida gritó de nuevo, sufrió una convulsión y acabó por _____ **la pata**. En su caída entonces la Ruby no se mató ella, sino mató a otras dos personas: al señor que ocupaba el

auto, y al anciano que creyó ver un ángel blanco que desde el cielo venía volando a llevárselo.

literal translation: to stretch the leg (paw)

figurative meaning: to kick the bucket

Appendix B. CHARACTERISTICS OF LEARNER GROUP OF PARTICIPANTS

Subject NNS	Gender	Age	Degree program	Q#1 How many years have you studied Spanish?	Q# 2 Have you ever lived in a Spanish-speaking country?	Q#3 In which country did you live?	Q#4 How long did you stay there?	Q#5 Do you live with a native Spanish speaker?	Q#6 Do you speak any other languages?	Q#7 Which ones?
GA 1	F	33	MA Span Ling (graduated)	16 years	Yes	Paraguay Peru Asrgentina Costa Rica	3 years	no	Yes	Guarani
GA 2	M	25	MA Span Ling (1st year)	10 years	Yes	Spain	5 mo	yes	Yes	Portuguese
GA 3	F	24	MA Span Lit (2nd year)	10 years	Yes	Spain	6 mo	yes	Yes	Portuguese
GA 4	F	31	MA Span Ling graduated	8 years informal 5 years formal	No	n/a	n/a	?	Yes	French, Italian
GA 5	F	23	MA Span Ling (2nd year)	11 years	No	No	n/a	?	Yes	Portuguese
GA 6	F	32	MA graduated	14 years formally 5 years	Yes	Spain	4 years	no	Yes	French

GA 7	M	24	MA Span Lit (2nd year)	10 years	Yes	Spain	6 mo	no	Yes	Portug uese
GA 8	F	30	PhD Span Lit (2nd year)	12 years	Yes	Spain	6 mo	no	Yes	French
GA 9	M	42	PhD Span Lit gradu ated	9 years	yes	Spain	4 mo	yes	no	n/a
GB 1	M	29	PhD Span Ling (3rd year)	16 years	No	N/a	n/a	no	Yes	Portug uese
GB 2	M	27	MA Span Ling Grad uated	10 years	Yes	Spain	17 mo	no	Yes	Portug uese
GB 3	F	28	MA Span Ling (2nd year)	10 years	Yes	Costa Rica	1 year	no	No	n/a
GB 4	M	30	PhD Span Lit (3rd year)	15 years	Yes	Argenti na Peru	22 mo	yes	No	n/a
GB 5	M	28	PhD Span Ling (4th year)	14 yrs formall y initially learned at age 6	No	n/a	n/a	yes	Yes	Portug uese French Arabic Lithua nian
GB 6	F	24	PhD Span Ling (1st year)	10 years	Yes	Costa Rica Domini can Republi	5.5 mo	no	Yes	Portug uese

						c Spain Mexico				
GB 7	F	31	PhD Span Lit (5th year)	15 years	No	n/a	n/a	no	No	n/a
GB 8	F	23	MA Span Ling (2nd year)	9 years	Yes	Honduras	5 weeks	yes	No	n/a
GB 9	M	26	MA Span Ling (1st year)	4.5 years	No	No	n/a	no	Yes	Italian Portuguese

Appendix C. CHARACTERISTICS OF CONTROL GROUP OF PARTICIPANTS

Participant	Gender	Age	Country of origin	Degree program
NSGA1	F	25	Colombia	MA Hispanic Lit (2nd year)
NSGA2	M	33	Peru	PhD Hispanic Lit (3rd year)
NSGA3	F	43	Peru	MA Hispanic Ling (graduated)
NSGA4	M	36	Spain	MA Hispanic Lit (graduated)
NSGB1	F	38	Peru	MA Hispanic Ling (graduated)
NSGB2	M	36	Mexico	PhD Hispanic Lit (3rd year)
NSGB3	M	24	Peru	MA Hispanic Ling (1st year)
NSGB4	M	25	Spain	MA Hispanic Lit (2nd year)

Appendix D. NATIVE SPEAKER'S JUDGMENTS ON ACCEPTABILITY OF CERTAIN IDIOMS WITH VARIATION IN THE VERB

	NS Spain NSGA4	NS Spain NSGB4	NS Peru NSGA3	NS Peru NSGB3	NS Peru NSGB1	NS Peru NSGA2	NS anónimo
se puede decir: **Botar** la casa por la ventana *en vez de* **echar/tirar** la casa por la ventana. ¿Tiene el mismo significado?	No	Sí	Sí	Sí	Sí	Sí	Sí
se puede decir: **Dar** el grito en el cielo *en vez de* **poner** el grito en el cielo. ¿Tiene el mismo significado?	No	Sí	No	No	Sí	No	Sí
se puede decir: **Pegar** el grito en el cielo *en vez de* **poner** el grito en el cielo. ¿Tiene el mismo significado?	No	Sí	Sí	Sí	Sí	No	No
se puede decir: **Echar** el grito en el cielo *en vez de* **poner** el grito en el cielo. ¿Tiene el mismo significado?	No	Sí	Sí	No	Sí	No	No
se puede decir: **Tender(le)** la/una mano *en vez de* **dar/echar** una mano. ¿Tiene el mismo significado?	Sí	Sí	No	No	Sí	Sí	No
se puede decir: **Echar** por las nubes *en vez de* **poner/levantar** por las nubes. ¿Tiene el mismo significado?	No	No	No	No	n/a	No	No

se puede dicir: **Alzar** por las nubes *en vez de*: **poner/levantar** por las nubes. ¿Tiene el mismo significado?	No	No	No	No	n/a	No	No
se puede dicir: **Subir** por las nubes *en vez de* **poner/levantar** por las nubes. ¿Tiene el mismo significado?	No	No	No	No	No	No	No
se puede dicir: **Amarrar(se)** la lengua *en vez de* **morderse** la lengua. ¿Tiene el mismo significado?	No	Sí	Sí	No	Sí	No	No
se puede dicir: **Atar** la lengua *en vez de* **morderse** la lengua. ¿Tiene el mismo significado?	No	No	No	No	Sí	No	No
se puede dicir: **Tocarme** las narices *en vez de* **meter** las narices. ¿Tiene el mismo significado?	No	No	No	No	No	No	No
se puede dicir: **Sentirse** hasta la coronilla *en vez de* **estar/tener(le)** hasta la coronilla. ¿Tiene el mismo significado?	No	Sí	No	Sí	n/a	No	No

Appendix E. VERB AND NOUN FREQUENCIES IN THE CORPUS

Verbs:	Nouns:
hacer – 106408 occurrences for infinitives tener- 63080 estar -49883 dar-45297 pasar- 25589 tomar-21052 poner -20513 buscar- 15002 encontrar 16656 jugar -11578 romper -4678 echar -4107 levantar- 4306 meter- 2890 tirar -2333 mandar -1786 faltar -1231 arrojar- 766 lavar(se) -521/1409 estirar- 432 morderse -398	casa - 81383 occurrences madre -42258 manos -37837 luz- 32510 pie- 20499 fuego- 16207 lengua- 13021 pelo-9835 brazo-9784 piedra- 9171 ojo-7420 punta – 6224 nariz- 4728 grito-4235 nubes- 3693 gato- 3556 hielo- 3182 leña -1711 pata- 1686 mares- 1498 aguja-1367 toalla-1135 cantaros- 389 esponja-372 migas-368 coronilla- 189

Appendix F. EXAMPLES OF THINK-ALOUD PROTOCOLS

Idiom *dar(la)lata* (lit., 'to bother', fig., 'to drive crazy')

Group A

Participant: For this one I'm just kind of guessing. I've never heard this phrase before but there

is certain… according to the context of the paragraph where I'm taking the meaning from *dar*

lata or *dar (la)lata*… I'm assuming it means to give up, or that is what I am assuming it means.

The context is a little… it is using computer language I'm not really familiar with, but what I'm

getting from the context is there is a problem and it's telling people don't…don't give up, don't

despair, don't give up there is a solution to what they can do. I'm just guessing that by the

context mostly. I know what *dar* and *lata* mean but as a phrase, I just assume it means to give up.

 Group B

Participant: What is *lata*?

Researcher: 'can'

P: You said *lata* means can. The first thing that came to mind is that expression in English

'kicking the can.'

R: 'kicking the can' and what does it mean?

P: It's just like giving up.

R: To give up?

P: Yeah.

R: Ok, and you know this because you are relating it to the English expression?

P: I don't even know if that would be considered the English expression … it's just the first thing that popped in my head. I mean *desesperar* don't give up hope in the sentence right before it. Before kicking the can, yeah before giving up. This is what I would think.

R: And you know this from the context or from the working of the phrase?

P: I guess from the context.

Appendix G. RESULTS OF STATISTICS (T-TESTS AND LINEAR REGRESSION)

**Means and SDs for L2 Speakers (MEANS Procedure)**

Omitted	N Obs	Variable	Label	Mean	Std Dev
Noun	9	OverallPercent	OverallPercent	54.52	11.46
		IdenticalPercent	IdenticalPercent	68.15	13.24
		SimilarPercent	SimilarPercent	57.04	21.63
		DifferentPercent	DifferentPercent	39.63	11.36
Verb	9	OverallPercent	OverallPercent	61.93	10.98
		IdenticalPercent	IdenticalPercent	74.44	15.63
		SimilarPercent	SimilarPercent	51.85	15.91
		DifferentPercent	DifferentPercent	54.44	13.02

Means and SDs for Native Speakers (MEANS Procedure)

Omitted	N Obs	Variable	Label	Mean	Std Dev
Noun	4	OverallPercent	OverallPercent	97.33	2.18
		IdenticalPercent	IdenticalPercent	95.83	3.19
		SimilarPercent	SimilarPercent	100.00	0.00
		DifferentPercent	DifferentPercent	97.50	5.00
Verb	4	OverallPercent	OverallPercent	96.33	1.28
		IdenticalPercent	IdenticalPercent	99.17	1.67
		SimilarPercent	SimilarPercent	98.33	3.33
		DifferentPercent	DifferentPercent	92.50	3.19

Histograms of results for L2 Speakers (UNIVARIATE Procedure)

Distribution of OverallPercent
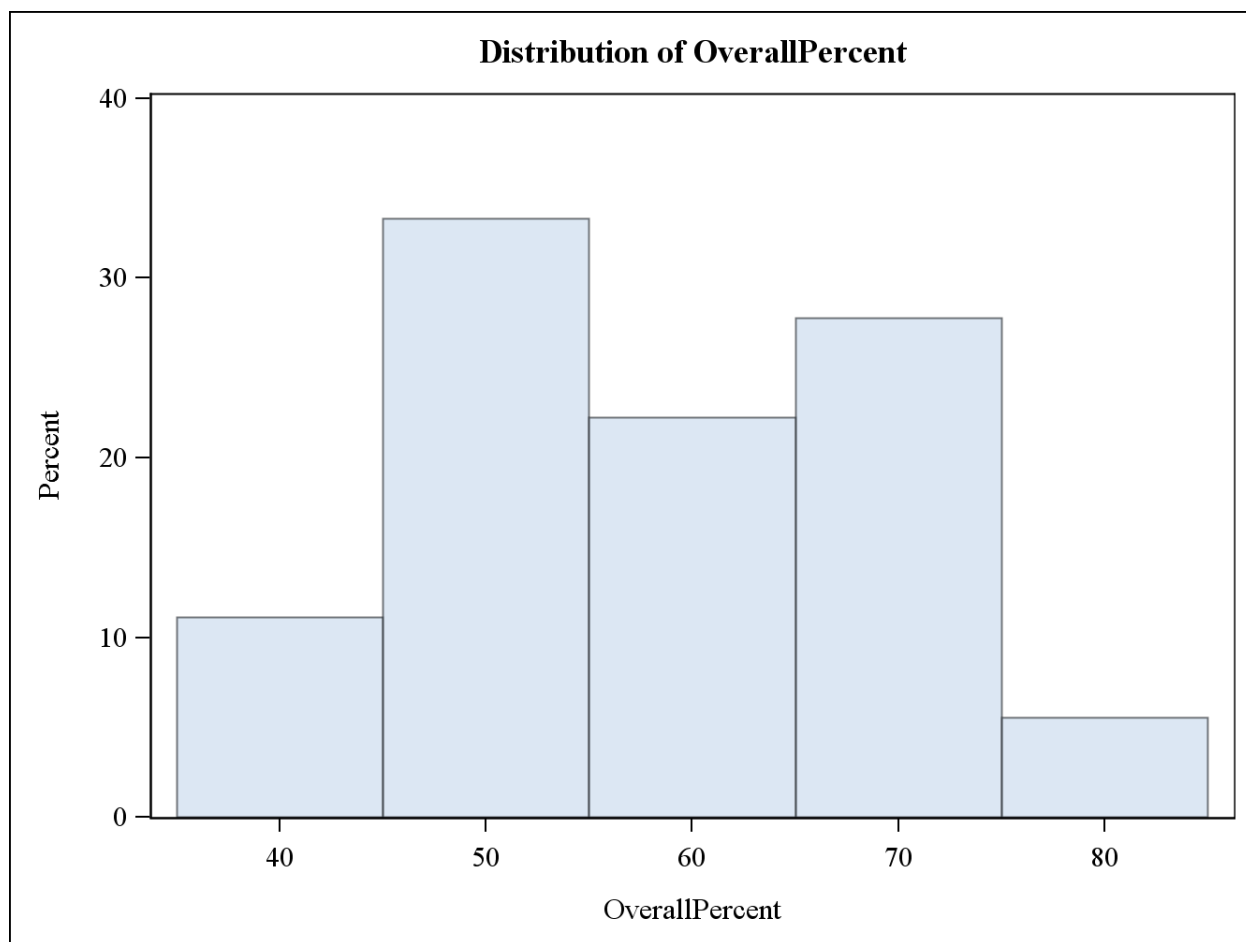
Histograms of results for L2 Speakers (UNIVARIATE Procedure) Identical Idioms

Distribution of IdenticalPercent
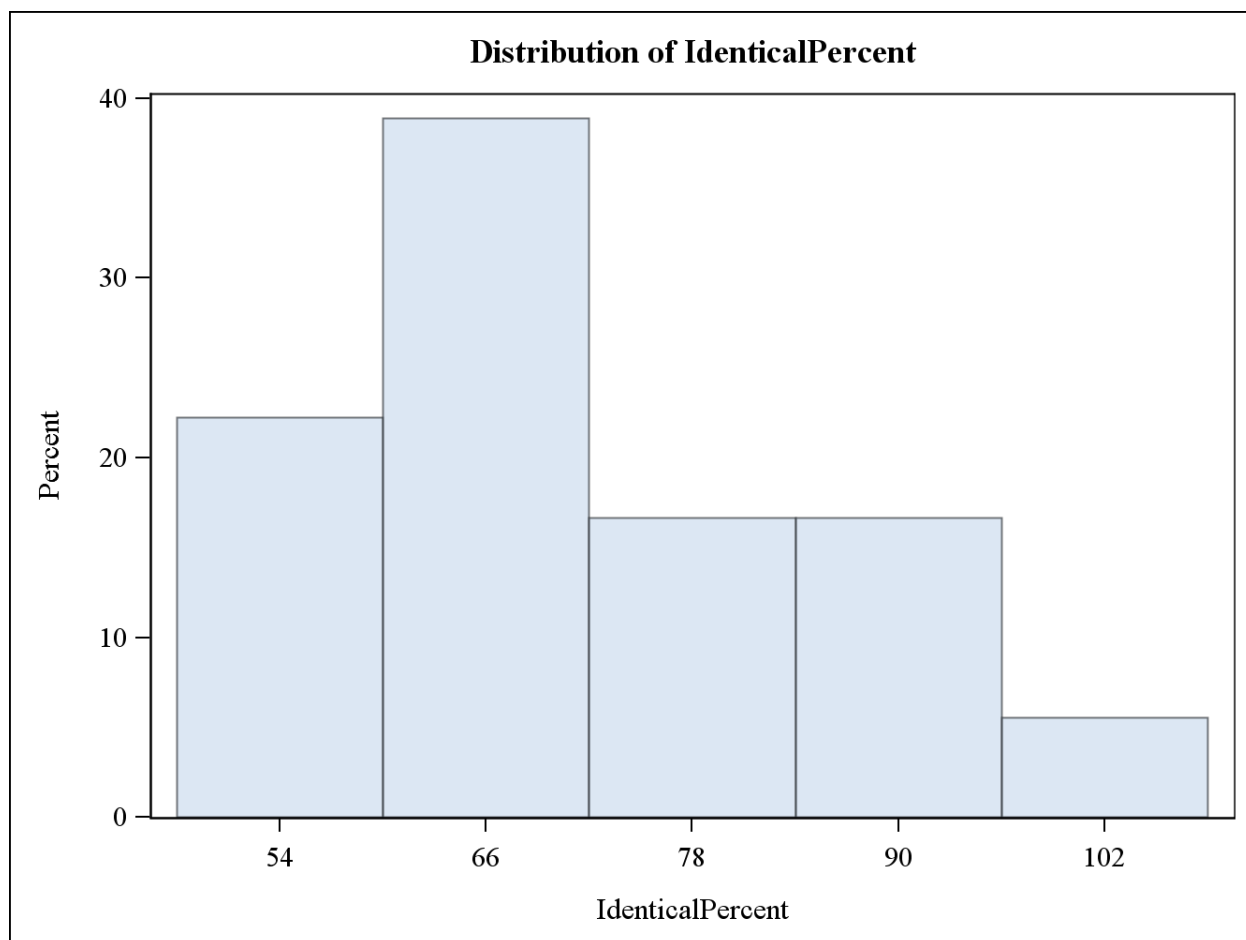
Histograms of results for L2 Speakers (UNIVARIATE Procedure) Similar Idioms

Distribution of SimilarPercent
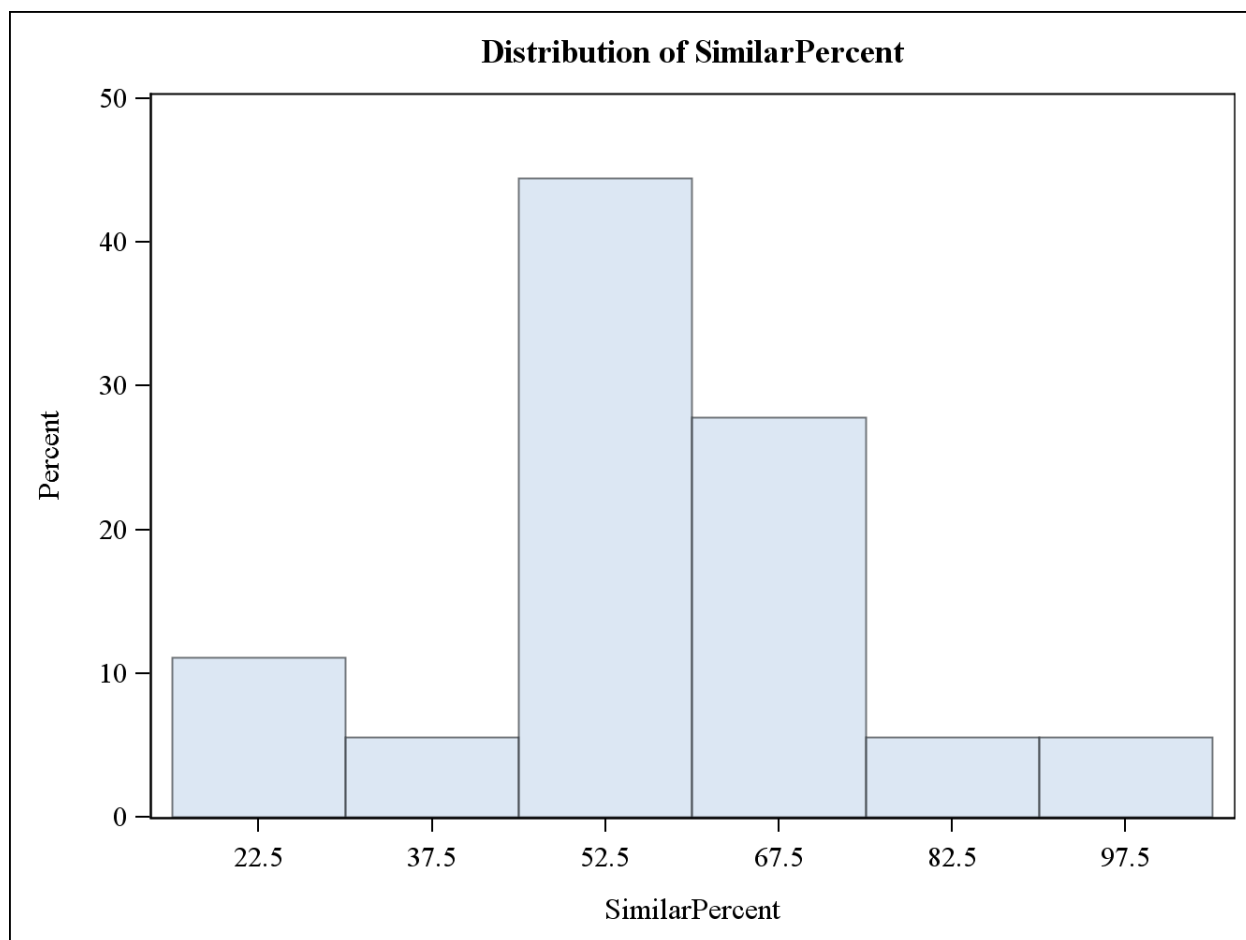
Histograms of results for L2 Speakers (UNIVARIATE Procedure) Different Idioms

Distribution of DifferentPercent
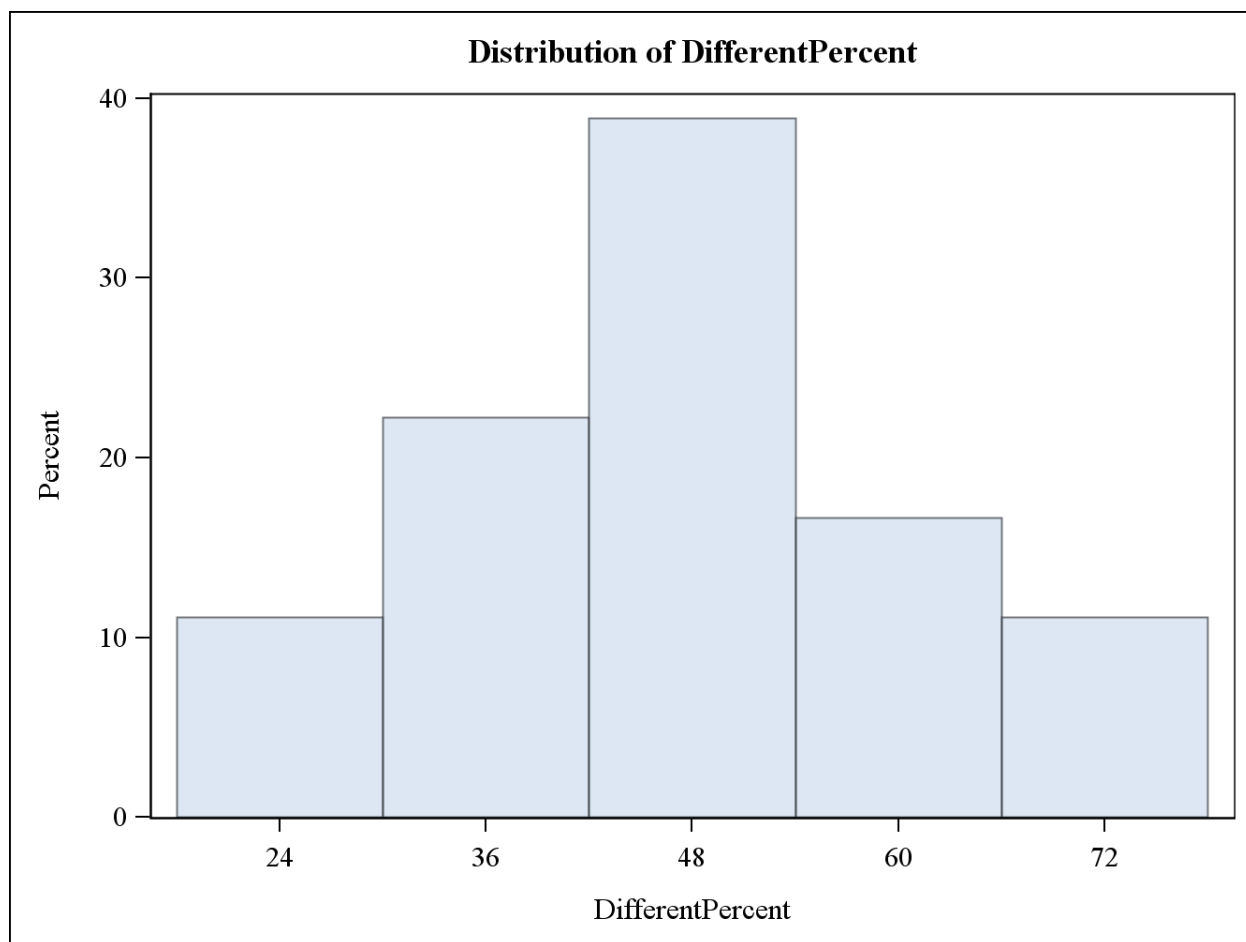
T-Tests comparing scores for noun and verb groups (Overall)

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	16	-1.40	0.1805
Satterthwaite	Unequal	15.971	-1.40	0.1805

T-Tests comparing scores for noun and verb groups (Identical idioms)

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	16	-0.92	0.3702
Satterthwaite	Unequal	15.577	-0.92	0.3706

T-Tests comparing scores for noun and verb groups (Similar Idioms)

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	16	0.58	0.5704
Satterthwaite	Unequal	14.695	0.58	0.5711

T-Tests comparing scores for noun and verb groups (Different Idioms)

Method	Variances	DF	t Value	Pr > |t|
Pooled	Equal	16	-2.57	0.0204
Satterthwaite	Unequal	15.712	-2.57	0.0207

Correlation alone: Relating months abroad to score

2 Variables:	ScorePercent Months

Simple Statistics							
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum	Label
ScorePercent	18	58.22222	11.53341	1048	37.33333	84.00000	ScorePercent
Months	18	9.27778	13.57682	167.00000	0	48.00000	Months

Pearson Correlation Coefficients, N = 18 Prob > |r| under H0: Rho=0		
	ScorePercent	Months
ScorePercent ScorePercent	1.00000	0.49170 0.0382
Months Months	0.49170 0.0382	1.00000

Linear Regression relating months abroad to score

The REG Procedure

Model: MODEL1

Dependent Variable: ScorePercent ScorePercent

Number of Observations Read	18
Number of Observations Used	18

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	1	546.71434	546.71434	5.10	0.0382
Error	16	1714.61900	107.16369		
Corrected Total	17	2261.33333			

Root MSE	10.35199	**R-Square**	0.2418
Dependent Mean	58.22222	**Adj R-Sq**	0.1944
Coeff Var	17.78013		

Parameter Estimates						
Variable	**Label**	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	Intercept	1	54.34696	2.98282	18.22	<.0001
Months	Months	1	0.41769	0.18493	2.26	0.0382

Linear Regression relating months abroad to score

Fit Diagnostics for ScorePercent

Residuals for ScorePercent

Fit Plot for ScorePercent