

Universidad de las Américas Puebla

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**Seeing eye to eye on judgments of idiom
transfer: The relationship between
semantic transparency and learner
proficiency**

Tesis profesional presentada por

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Para obtener el grado en

Maestría en Lingüística Aplicada

Jurado Calificador

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Cholula, Puebla, México a 30 de junio de 2005.

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1.0 Overview

This study is about the ways that second language learners perceive idiomatic expressions in their native language (L1), and how these perceptions affect their judgments about the direct translation of such expressions into a second language (L2). An investigation of this nature requires a dual approach: on one hand we will need background in vocabulary processing models specifically related to idioms; on the other hand, we will need a framework in second language learning theory, specifically related to transfer.

In 1977, Eric Kellerman published an influential paper on precisely the intersection of these two topics. His study looked at the ways that Dutch native speakers perceived the translatability of various senses of the polysemous verb *breken*, ‘to break’. In Dutch, as in English, the verb ‘to break’ has a range of meanings, from the literal meaning of breaching physical integrity (*he broke the cup*), to peripheral uses which are figurative or idiomatic in nature (*the wave broke on the shore, the cushion broke my fall*). Kellerman found that Dutch learners of English were reluctant to accept translations of more figurative meanings of ‘to break,’ showing that learners have intuitions about the translatability of items from their first language. In particular, elements which are perceived as “language-neutral” are more likely to be judged transferable than elements which are seen as “language-specific” or unique to the mother tongue. Kellerman concluded that the transfer of a linguistic item is influenced by three interacting factors:

- 1) the learner’s perceptions of the typological distance between the L1 and the L2 (psychotypology),
- 2) the learner’s perceptions of the markedness of a given item in his own mother tongue (prototypicality), and
- 3) the learner’s proficiency in the L2 (1977).

Although Kellerman’s research was about the various meanings of a single lexical item, he asserted that “idioms are one class of language items that are generally *not* transferred” (1977,

p.101, emphasis original). In this thesis, I address Kellerman's claim. Unlike a polysemous word, which has multiple meanings, a given idiom does not generally have shades of meaning; however, I hypothesize that *as a class*, idioms can be judged along a "language-specific - language-neutral" continuum. That is, certain idioms can be seen as more "prototypical" and therefore less transferable. I will focus on the second and third factors in Kellerman's (1977) study, examining learner perceptions of idioms in their native language and observing the degree to which intermediate and advanced learners accept the transfer of idiomatic expressions into an L2. Will learner judgments about literal translations vary according to a quality of the idiom itself -- its 'language-specificity' -- and/or to a particular quality of the learner, namely his or her L2 proficiency?

1.1 Idioms: Key Concepts and a Working Definition

What are idioms? How are they processed and how are they represented in the mental lexicon? Figurativeness and formulaicity are two important concepts in addressing these questions. An idiom is usually defined as "an expression whose meaning cannot always be readily derived from the usual meaning of its constituent elements" (Cooper, 1999, p.233). A significant part of this difficulty in deriving meaning is the non-literal nature of idiomatic expressions. What could it mean to literally *change one's mind*? Clearly, it is impossible. The meaning of this idiom comes from a commonly agreed upon metaphorical or figurative interpretation. Even when an idiom does have a possible literal meaning as in "she really *has both feet on the ground*," it is the figurative interpretation that conveys the true meaning of the utterance. Figurativeness, therefore, is an important defining characteristic of idioms.

Recent vocabulary and corpus research has recognized the ubiquity of formulaic utterances, including idioms and many other types of collocations (Sinclair, 1991; MacKenzie, 2000; Wray

& Perkins, 2000; Liu, 2003; Spöttl & McCarthy, 2003). According to Wray and Perkins (2000), a formulaic sequence is:

A sequence, continuous or discontinuous, of words or other meaning elements, which is, or appears to be, prefabricated; that is, stored and retrieved whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar (p.1).

Idioms are formulaic in the sense that they have a relatively fixed structure. They can be syntactically quite rigid. For example, many idioms lose their metaphorical meaning in the passive. Hence, expressions such as *the bullet was bitten by Bob* or *the bucket was kicked by Bob* are grammatically acceptable, but not idiomatic. Idioms also often have an idiosyncratic word order. Expressions such as *up and running* and *sooner or later* lose their idiomaticity if reversed.

On the other hand, some idioms allow a degree of syntactic manipulation (Cutting & Bock, 1997, p.58) or lexical substitution (Gibbs, Nayak, Bolton, & Keppel, 1989). For example, the insertion of adjectives and quantifiers is permitted in “Mary really touched a couple of nerves,” as is topicalization in “The strings that John was able to pull seemed to be the right ones for getting the job” (Cutting & Bock, 1997, p.58). Similarly, *blow your top/stack* and *give/lend a hand* are acceptable lexical substitutions.

Idioms appear to be stored with information about their internal syntax and semantics, in a kind of multilayered idiom lemma¹ (Levelt, 1989). Mental representations of idioms are “linked to information about the grammatical class of their constituents, about their overall syntactic structures, and about literal meaning” (Cutting & Bock, 1997, p.69). As a result, we are able to transform and manipulate idioms in linguistically sensible ways (and know when this is not

¹ In Levelt’s model, lexical access consists of two steps: lemma and lexeme retrieval. A lemma is stored information of a word’s semantic and syntactic properties such as word class, grammatical gender and so forth, while a lexeme specifies morphophonological form.

possible), and even produce idiom blend “errors” that consistently involve structurally and semantically similar components (Cutting & Bock, 1997, p.66). The formulaicity of idioms, coupled with (unconscious) information about their semantic and syntactic qualities, make possible the modifications we are able to perform, either unwittingly as error or consciously for emphasis, variety, or humorous effect.

For the purposes of this study, idioms are defined as figurative and formulaic dependent clauses consisting of three or more words. In order to reduce experimental variables, I do not include single words with idiomatic uses like *lemon* or *hip*, two-word phrasal verbs such as *put aside* or *look into*, or independent clauses such as *the apple doesn't fall far from the tree*. The implications of figurativeness and formulaicity will be further discussed in the mental representation and processing models described below.

1.2 Idiom Processing and Mental Representation

Researchers have long focused on how idioms are processed and represented in the mental lexicon. When and how is the figurative meaning of an idiom accessed? Are idioms part of the normal lexicon, or a separate idiom lexicon? Are they stored simply as one big word? Or are they “decomposable” – analyzable according to their constituent parts?

Initial approaches in idiom research focused on whether the figurative or literal meaning is retrieved during idiom comprehension, and in which order this retrieval occurs, if both meanings are accessed. Along this line of inquiry, Bobrow and Bell (1973) posited one of the earliest idiom comprehension models, the Idiom List Hypothesis. This model proposes that idioms are stored in chunks in an idiom lexicon separate from the mental lexicon. Further, like Searle's (1975) three-stage model for processing indirect speech acts, the Idiom List Hypothesis claims that the literal meaning of a phrase is accessed first, then checked against context. If the literal

meaning is incompatible with the context, the idiom list is consulted for retrieval of the figurative interpretation. In this model, the literal meaning of an idiom is always accessed before figurative meaning.

In contrast, Swinney and Cutler's (1979) Lexical Representation Hypothesis asserts that idioms are stored in the normal lexicon as long words, that is, as single word entries. Both literal and figurative meanings are accessed simultaneously, and context determines which meaning is ultimately chosen. In this study, participants saw idiomatic and non-idiomatic phrases and performed a timed lexical decision task. Participants identified idioms as meaningful grammatical phrases significantly faster than they identified matched control strings. Swinney and Cutler concluded that the idiomatic phrases were recognized more quickly because they were processed whole, in effect as one long word, whereas the control phrases required parsing.

A third model, the Direct Access Hypothesis (Gibbs, 1980), claims that the figurative meaning of an idiom is accessed directly from the mental lexicon, and literal meaning is rarely processed at all. Gibbs presented participants with short vignettes that provided context for either a literal or figurative interpretation of an idiom in the final sentence. Even in contexts that supported literal interpretation, participants were slower to choose the literal meaning, leading to the conclusion that idioms are processed figuratively by default.

Finally, Cacciari and Tabossi (as cited in Titone & Connine, 1994) present the Configuration Hypothesis, which claims that literal meaning is activated until the recognition of an *idiomatic key*, or point at which literal processing is switched off and idiomatic interpretation emerges. This model proposes that idiom meaning is a function of the weights of connections between the lexical nodes that compose an idiom. For example, the nodes in *shoot the breeze* are more strongly weighted for figurative interpretation than the nodes in *shoot the gun*. This idiomatic

phrase will be processed for literal meaning until the idiomatic key, presumably the initial syllables of “breeze,” are encountered. In this study, idiom predictability, defined as a function of familiarity and non-decomposability (discussed below), is an important factor in processing. The more predictable the idiom, the faster the key will activate figurative meaning.

These processing models have rested on assumptions about the representation of idioms in the mental lexicon. One of the most disputed assumptions is the notion that idioms are stored as “big words.” Editors Cacciari and Tabossi (1993) present a volume of articles exclusively on the topic of idiom processing, many of which challenge the idea that idioms are stored as dead metaphors or big words on the grounds that these conceptualizations are unable to account for the semantic and syntactic complexity of idioms. The syntactic variations and lexical substitutions described above pose a challenge for big word models since it seems unlikely that every modification template (or rule prohibiting modification) could constitute an individual entry. Rather, the individual components of an idiom must have some relationship to its overall meaning.

Gibbs and Nayak (1989) explore the relationship between the meaning of an idiom and its constituent parts in their Idiom Decomposition Hypothesis. Along a continuum of (de)compositionality, decomposable idioms contain individual words which contribute to figurative meaning, while non-decomposable idioms do not. For example, *miss the boat* is decomposable because the metaphorical relationship between missing a boat and missing an opportunity is apparent. Here, the individual words in the idiom contribute to its figurative meaning. Conversely, in the classic example of a non-decomposable idiom *kick the bucket*, the meaning of the constituent parts (knocking over a pail) has no clear relationship to the figurative meaning of the idiom (to die). The Idiom Decomposition Hypothesis suggests that idioms have

significantly different form-meaning relationships than single words. Not only does an idiom consist of multiple words (each with its respective meaning), the idiom can be understood figuratively as a whole, or literally, as a sum of its parts.

Along similar lines, Nayak and Gibbs (1990) question other long-standing assumptions about the mental representation of idioms. They criticize the conceptualization of idioms as “frozen” or “dead metaphors,” since this idea suggests that an idiomatic form has become so automatically associated with a given meaning as to be arbitrarily related to the meaning of its constituent parts. They assert that “when speakers judge that the idiom *let off steam* is analyzable or decomposable, they are essentially finding some relation between the components *let off* and *steam* with their figurative referents ‘release’ and ‘anger’” (p.316). Thus, rather than being frozen, the meaning of an idiom can be partially motivated by a recognition of a metaphoric relationship between the words in an idiom and its meaning as a whole. They also challenge the assumption that the figurative meaning of an idiom is a rough equivalent to a literal paraphrase, such that *spill the beans* means “to reveal” and *get on your nerves* means “to annoy.” While this kind of simple equivalence is possible, Nayak and Gibbs call attention to the semantic complexity of idioms, particularly in expressing nuances of meaning. For instance, *blow your stack*, *lose your cool*, *flip your lid*, *get hot under the collar* and *hit the roof* all express the idea of “getting angry,” yet with different shades of meaning. They point out that no model proposes links between semantically related idioms such as these, although models of the mental lexicon propose links between semantically related words (Cruze, 1986).

This section has explored some of the ways that researchers have conceptualized idiom processing and representation in monolinguals. The following section introduces idioms in a

bilingual context. I begin with a discussion of transfer, an important concept in second language acquisition theory, and conclude with detailed descriptions of bilingual idiom studies.

1.3 Background: Transfer and Second Language Acquisition

Within the field of second language acquisition (SLA), there is much debate over the interaction between one's native language and subsequently learned languages. As Jarvis (2000) states, "perhaps no area of second language research has received as much attention and remained as elusive as the influence of first language" (p.2). The interplay between a first language (L1) and second language (L2) has been studied under a variety of names including *interference*, *transfer*, *mother tongue influence*, *cross language influence*, and most recently, *crosslinguistic influence* (CLI). This taxonomic evolution reflects theoretical development in the field of SLA generally, as new models of second language learning have given rise to new ways of thinking about transfer.

Early research on transfer emerged during the Contrastive Analysis period of the 1940s and 1950s, at a time when structural linguistics and behaviorist views of language learning predominated (Bou Franch, 1998). Behaviorist theory asserted that all learning, including language learning, was an exercise in repetition, imitation, and habit formation (Kellerman & Sharwood Smith, 1986; Gass & Selinker, 1993). Within this model, language acquisition was thought to be characterized by the development and elaboration of increasingly complicated linguistic structures.

During this era, SLA researchers were primarily concerned with language teaching and the development of pedagogical materials and methodology (Larsen-Freeman & Long, 1991; Gass & Selinker, 1993). In particular, contrastive studies which recorded systematic similarities and

differences between languages were thought to be useful in materials development. In the words of Fries (1945):

The most efficient materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner (as cited in Larsen-Freeman & Long, 1991, p.52).

The research that resulted from this view led to the Contrastive Analysis Hypothesis (Lado, 1957), which proposed that areas of similarity between the L1 and L2 would lead to positive transfer, whereas differences would lead to negative transfer, or interference.

Underlying the Contrastive Analysis hypothesis was the assumption that one's native language had a substantial impact on the learning of a second language. While some of the effect could be expected to be positive, it would inevitably have a negative effect as well, presenting obstacles for the learner. Importantly, these errors could be predicted, based on the similarities and differences of the L1 and L2 in question. In a behaviorist context, this meant helping the learner recognize and overcome L1 habits while acquiring new habits in the L2. Through contrastive analysis, it was believed that learner errors – potential bad habits in the L2 - could be predicted and swiftly trained out of the learner (Kellerman & Sharwood Smith, 1986; Odlin, 1989; Larsen-Freeman & Long, 1991).

Noam Chomsky's 1959 landmark review of Skinner's *Verbal Behavior* (1957) marked the beginning of a radical shift away from behaviorism and structural linguistics, and toward transformational linguistics and cognitive approaches to second language learning (Odlin, 1989; Larsen-Freeman & Long, 1991; Bou Franch, 1998). Where behaviorists had emphasized habit formation and rote learning, new thinking stressed the role of creativity, problem solving, and other cognitive capacities in language learning. Earlier concerns about documenting language differences through contrastive analysis gave way to interest in the notion of language universals.

Whereas an earlier generation of scholars disregarded the role of biological predispositions to language acquisition, new thinking focused on innate language capacities (Odlin, 1989) and the developmental nature of language acquisition, placing little emphasis on the role of the L1 in second language learning (Bou Franch, 1998).

These and other developments led to a decline in interest in transfer and to the discredit of contrastive analyses in particular. Specifically, empirical studies on actual learner errors did not necessarily correlate with the predictions of contrastive analysis. Moreover, it was noted that learners from distinct L1 backgrounds followed a regular developmental progression in the L2, often highly similar to L1 development, suggesting that the native language did not have such a central effect on second language acquisition (Kellerman & Sharwood Smith, 1986; Odlin, 1989; Larsen-Freeman & Long, 1991). Finally, the contrastive analysis hypothesis was criticized for depending too heavily on learner output, especially errors, to make assumptions about psycholinguistic processes (Larsen-Freeman & Long, 1991).

Eventually, transfer regained a place as an important aspect in the field of second language acquisition not only because it is a pervasive phenomenon that was difficult to ignore, but also because notions of transfer evolved with advances in SLA theory. Conceptualization of errors as an obstacle to learning, for example, developed into a recognition of errors as an inevitable part of language learning, and an illustrative part of a learner's interlanguage (Larsen-Freeman & Long, 1991; Mitchell & Myles, 1998). It was recognized that developmental learning sequences and L1 transfer were not mutually exclusive. In these ways, notions of transfer were able to survive beyond behaviorist theories of habit formation. Indeed, investigation of the role of the L1 expanded to include other aspects of language learning such as avoidance, language loss, and influence on third language acquisition.

Transfer has continued to be a dynamic concept, provoking much debate among researchers. In the introduction of their collection on transfer, Dechert and Raupach (1989) describe over ten meanings and applications used throughout the book. Terms such as *interference* and even *transfer* have been criticized as problematic because of their associations with specific theories of learning, namely behaviorism. Corder (1993) asserts that these two designations “may perhaps quite unconsciously constrain one’s freedom of thinking about the particular topic” (p.19). Many scholars continue to use the term *transfer* in current research, and while Corder’s rejection may be radical, it can be understood as an appeal to search for theory-neutral definitions of L1 influence. To this end, Kellerman and Sharwood Smith (1986) proposed the term *crosslinguistic influence* (CLI) to include transfer, interference, avoidance, borrowing, and L2-related aspects of language loss. Gass and Selinker (1993) conclude that transfer is “the use of native language (or other language) knowledge – in some as yet unclear way – in the acquisition of a second (or additional) language” (p.234). They add that it can include avoidance, overproduction, overgeneralization, rule transfer, and strategy transfer. While recognizing the distinctions other authors draw, I will use the terms *CLI* and *transfer* interchangeably.

These notions of CLI are clearer within particular second language learning theories which seek to explain fundamental aspects of second language learning and why it differs so markedly from first language acquisition. While there is invocation of Universal Grammar, and speculation as to the degree of its availability for second language acquisition, many CLI researchers understand second language acquisition as “controlled by general human cognitive learning capacities rather than by the same domain-specific module which guarantees success in first language acquisition” (Bley-Vroman, 1989, p.44). Further, there is recognition of the

importance of the learner's creativity and choices in his or her learning (Kellerman, 1986).

Second language learning is seen as a constructive process "in which learners are interacting with their environment to produce an internalized representation of the regularities they discover in the linguistic data to which they are exposed" (Corder, 1993, p.20).

1.4 Bilingual Idiom Research

Idioms present an interesting challenge for second language learners. Because idioms require a figurative interpretation, their meaning may not always be transparent to the learner.

And their formulaic nature means that prior experience is needed for target-like production. As Swan (1997) points out,

Paradoxically. . .unpredictable utterances can be easier to produce in a foreign language than routine expressions. 'Why is there a dead cat on the floor of your shop?' can be constructed out of simple lexical and grammatical building blocks; 'Thank you, I'm being served' cannot be made in the same way – either you know how to say it or you don't" (p.177).

How is a learner to know which of all of the grammatically correct possibilities is the idiomatic one? Unfortunately for the learner, the majority of conventionally preferred collocations -- including idioms -- do not cross linguistic boundaries (Swan, 1997), so the L1 will not be of much help. There is no way of knowing without learning the item itself.

Researchers have studied the ways that learners use, and avoid using, idioms in a second language. Idiom decomposability and idiom translatability have been two important variables in bilingual idiom research. As we have seen, decomposability refers to the relationship between an idiom's overall meaning and its constituent parts. Idiom translatability refers to the degree to which an idiom can be translated from one language into another. Depending on the two languages in question, some idioms co-exist as word-for-word equivalents, some idioms are similar to each other both formally and semantically, and others are unique to a given language.

Irujo (1986) investigated whether second language learners use their knowledge of first language to comprehend and produce idioms in an L2. Participants in this study were native speakers of Spanish, advanced learners of English. Irujo identified 15 English language idioms identical in form and meaning to their Spanish language equivalents, 15 similar idioms, and 15 idioms with equivalent meaning, but different form in the two languages. Participant comprehension was tested in a multiple-choice test and an open-ended definition test. Recall and production were tested with a discourse completion task and a translation test. Results showed that identical idioms were the easiest to comprehend, recall, and produce. Similar idioms were comprehended almost as well but showed interference from Spanish, in the form of word-for-word translation. Different idioms were the most difficult to comprehend and produce, but showed less interference. English language idioms which were comprehended and produced most correctly were semantically transparent, syntactically simple, and contained high frequency vocabulary.

Irujo (1993) used the same target stimuli in a similar study investigating avoidance of idiom production. Using a translation task, she found that fluent Spanish-English bilinguals who were native speakers of Spanish did not appear to avoid producing idioms in their L2. Results showed no correlation between production and idiom frequency and only a weak correlation between production and semantic transparency. The most important predictor of idiom production in the L2 was its similarity to an idiom in the L1. Irujo points out that the construct of avoidance may be more complicated in the case of idioms. In most contexts, when unsure of how to proceed, a learner has several options: L1 transfer, avoidance, message abandonment, circumlocution, or paraphrase. But in the case of idioms, there is also the option of literal communication, since the

meaning of an idiom can always be expressed non-idiomatically. Therefore it is difficult to identify when idiom use is truly being avoided.

Laufer (2000) also investigated idiom avoidance, focusing on the effect of formal similarity in the L1 (Hebrew) and L2 (English). Laufer distinguished four types of idioms:

- 1) total formal similarity (identical form and meaning in Hebrew and English)
- 2) partial formal similarity (similar form and same meaning)
- 3) lack of formal similarity (different form but same meaning)
- 4) distributional difference (English language idioms with no idiomatic counterpart in Hebrew).

First-, second- and third-year learners of English completed a fill-in translation task, translating five idioms from each category “in any way they felt most comfortable with” (p. 191).

Participants were also tested on their familiarity with the target stimuli, to verify that they were aware of the idioms and therefore potentially avoiding them. As in Irujo (1993), learners did not avoid idioms generally; however, expressions which were partially similar and those with no L1 equivalent (types 2 and 4 above) were avoidance inducing factors. L2 proficiency also affected avoidance, with the second- and third-year learners producing more idioms in the L2 than the first-year learners.

Bortfeld (2003) examined cross-linguistic influence and idiom comprehension, but focused on the variable of decomposability, referred to as *analyzability* in her study. Following Gibbs and Nayak (1989) described above, Bortfeld identified three different kinds of idioms: normally analyzable, abnormally analyzable, and unanalyzable. Normally analyzable idioms are those with a relatively transparent relationship between the surface structure of an idiom and its meaning, for example *lose your temper*. Abnormally analyzable idioms require more analysis to distinguish the metaphorical relationship between the literal meaning and the underlying figurative concept. For example, the idiomatic phrase *lose one's marbles* can only be understood

if one knows that “marbles” are a metaphor for “mental stability” Finally, unanalyzable idioms are those whose surface structure has little relation to the intended figurative meaning, as in *to be a basket case*.

In Bortfeld (2003), native speakers of Latvian and Mandarin rated idioms in their language for analyzability according to the three categories described above. For each language, seventy-five idioms (twenty-five from each category) were translated literally into English, and native English-speaking participants determined the figurative meaning of each phrase. Results showed a direct relationship between an idiom’s analyzability and the speed and likelihood of correctly determining its meaning. While acknowledging that the three levels of analyzability are artificial distinctions, Bortfeld endorses the theoretical utility of a continuum of decompositionality which is “anchored at less metaphorical (and more literal) on one end, becoming increasingly metaphorical as one moves away from that end, and finally becoming relatively arbitrary, or culturally and/or historically based at the opposite end” (p.227).

In an exploratory study, Cooper (1999) investigated the on-line processing strategies of non-native speakers in their attempts to decipher the meanings of English language idioms. Using a think-aloud procedure, he found that participants used the following strategies, in descending order of use: guessing from context, discussing and analyzing the idiom, using literal meaning, requesting information, repeating or paraphrasing the idiom, using background knowledge, and referring to an L1 idiom. In other words, L1 transfer was the least used strategy.

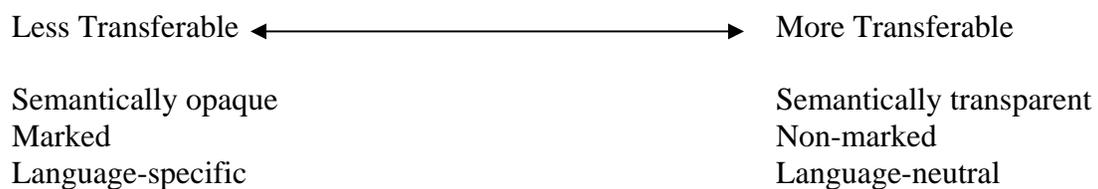
The aforementioned studies describe some of the important theoretical considerations and findings of bilingual idiom research. Each investigation has attempted to understand how second language learners derive the meaning of idiomatic expressions. Is the analyzability of internal components an important factor? What happens when idioms are similar in the L1 and L2, or

different? What strategies do learners use to get at meaning? Research has found that, indeed, an idiom's internal components and its translatability play a role. Specifically, the more decomposable and translatable an idiom, the more likely its figurative meaning will be correctly interpreted by L2 learners. But of course, characteristics of the idiom are not the only factors at play. Learners themselves use many strategies to decipher the meaning of idiomatic expressions. These findings offer a general context to think about bilingual idiom processing, which the next section will discuss in greater detail. Kellerman's work (1977, 1978, 1983) is particularly relevant to this discussion and provides the conceptual foundation for this thesis. It is this topic to which I now turn.

1.5 Conceptual Foundations

Kellerman's (1977) article proposes three important aspects which influence transfer: the perceived language distance between the L1 and L2, learner proficiency in the L2, and the markedness of the item in question. According to Kellerman, transfer, both positive and negative, is more likely to occur in situations where the learner believes the L1 and L2 are typologically similar. Of course, this perception on the part of the learner may or may not correspond to the typological facts of the languages in question, since "the learner does not have the advantages of the linguist's bird's eye view of the two languages. His comparisons are made gradually and incrementally" (p.103). Hence the importance of learner proficiency. In beginning stages, Kellerman hypothesizes that students are "relatively naïve, linguistically speaking, and . . . will be forced to rely on their own 'feel' for the languages concerned" (p.114). With increased exposure to the L2, the learner will develop greater metalinguistic awareness with which to judge the appropriateness of transfer.

It is the third factor, markedness, which has the most complex implications for the present study. Kellerman (1983) states that “if a feature is perceived as infrequent, irregular, semantically or structurally opaque, or in any other way exceptional, what we could in other words call ‘psycholinguistically marked,’ then its transferability will be inversely proportional to its degree of markedness” (p.117). He defines these L1 items which the learner considers marked in some way as ‘language-specific’. Here, Kellerman establishes a relationship between semantic opacity, markedness, and language-specificity, and correspondingly, a connection between semantic transparency, non-markedness, and language-neutrality. The following figure illustrates:



Applying the notion that idioms are differentially transferable and not categorically marked, it follows that a semantically opaque idiom will be less transferable than a semantically transparent idiom.

1.6 The Present Study

The present study adopts Kellerman’s notion of a language-specific/language-neutral continuum of transferability, with an important modification. Kellerman considers idiomatic expressions in general to be marked, and therefore language-specific and *not* likely to be transferred. He writes,

It is not difficult to see why idiomatic expressions should be seen as marked, since they are, amongst other things, transformationally defective, and the sum of the parts rarely equals the meaning of the whole. Nor do they allow the free and easy commutability of their non-idiomatic counterparts. Thus, the learner’s reasoning might go, such forms, being already ‘marked’ in the [L1], and so typical of it, are hardly likely to have an identical parallel existence in the [L2] (1978, p.62).

And yet Kellerman (1983) concedes that “the transferability of idioms, while generally low, is still gradable” (p.118). This thesis explores the idea that idiomatic expressions are differentially marked. To what degree can idioms be judged along a continuum of transferability, with some idioms more ‘language-specific’ and others more ‘language-neutral’?

The present study makes a basic distinction between idioms, separating them into categories: semantically opaque and semantically transparent. Semantically opaque idioms are those which have an obscure form/meaning relationship. That is, the meaning of the expression appears to have no relationship to the sum of its constituent parts, often because the etymology of the idiom is lost or no longer widely known. An example of a semantically opaque idiom is *at sixes and sevens*, which means ‘in a state of confusion or disarray’ and may have its origin in a biblical passage, a guild dispute, or a medieval game.²

Semantically transparent idioms are separated into two subtypes: similes and metaphorical images. A simile is considered semantically transparent because it establishes an analogy between an abstract entity (e.g. busy) and a stereotypical quality of a known entity (e.g. bee), yielding the idiom *busy as a bee*. If one has sufficient knowledge of both bees and the state of being busy, the relationship between form and meaning is relatively clear. Similarly, some idioms make use of symbolic images or situations to express meaning figuratively. An example of this type of idiom would be *butterflies in my stomach* to convey nervousness or anxiety. This expression creates a link between an abstract entity and a metaphorical image. Again, the form/meaning relationship is clear if one has knowledge of the feeling of nervousness and can imagine having butterflies in one’s stomach.

² As cited in World Wide Words. (2004). Retrieved April 4, 2005 from <http://www.worldwidewords.org/qa/qa-six1.htm> and Words at Random. (2000). The Mavens’ Word of the Day. Retrieved April 4, 2005 from <http://www.randomhouse.com/wotd/index.pperl?date=20000331>

This study has several objectives. First, it looks at the ways that second language learners perceive idiomatic expressions. Do they have a sense that some idioms are more transparent than others? Secondly, do learner perceptions correspond with the ways that I as the researcher have classified idioms along a continuum of semantic transparency/opacity? Thirdly, how do their assessments of semantic transparency correspond with their judgments about direct translation into an L2? That is, do learners accept the direct translation of an idiom that they judge to be semantically transparent? And finally, how do judgments of direct translation differ according to proficiency level in the L2?

In light of these questions, the following hypotheses are formulated:

- H1: Native speakers of English will be able to sort English language idioms into two categories: semantically transparent and semantically opaque, and this sorting will correspond to the ways that the researcher has classified the idioms.
- H2: Acceptability judgments of direct translation into Spanish will vary according to this sorting. Idioms identified as semantically transparent will be judged more acceptable in direct translation than idioms identified as semantically opaque.
- H3: Intermediate learners of Spanish will be more willing to accept the direct translations of idioms than advanced learners of Spanish.

These hypotheses were tested in three-part experiment. First, participants were asked to rate the acceptability of English language idioms that had been translated literally into Spanish. In the second task, participants were asked to sort target items into two categories: semantically opaque or semantically transparent. And finally, they were asked to provide information about their language background. These steps will be explained in detail in the next chapter.

2.0 Method

This chapter explains the methodology used for data collection in the present study. It begins with a description of participants, and reports the process and rationale for selecting a subset of participant data for later analysis. The three instruments used in the experiment are presented, followed by details of the pilot study. The chapter concludes with a description of the experiment procedure.

2.1 Participants

One hundred and twenty-seven undergraduate students participated in an experiment conducted at a large public university in California, United States. The average age of participants was 19.2 years. Fifty-nine students were enrolled in an intermediate level Spanish grammar course which required language proficiency equivalent to four years of high school Spanish, or a 3 (out of 5) on the Advanced Placement (AP) Spanish language exam. This course was not open to heritage speakers¹. An additional sixty-eight participants were enrolled in an advanced level Spanish content course. Enrollment in this course required at least one prerequisite course in the Spanish Department or an AP score of 5. This course was required of all Spanish majors and minors, including heritage speakers.

It was necessary to reduce the participant pool according to certain fundamental assumptions of the present study. First, native language was assumed to be important for the kinds of intuitions under investigation; therefore, participants had to report English as a native language. Second, because all target stimuli were U.S. idioms, and childhood place of residence was assumed to impact idiom familiarity and use, participants had to report childhood residence in

¹ McLaughlin (2001) defines a heritage language learner as “a student who learns the language of his/her home or ethnic background” (p.1).

the United States². Moreover, as discussed in the previous chapter, metalinguistic awareness may impact the kinds of learner perceptions of interest in the present study. Because research has shown that childhood bilingualism (Bialystok, 1987; Cummins, 1979; Kellerman, 1983) and third language acquisition (Ringbom, 1986; Gibson & Hufeisen, 2003) influence and likely increase metalinguistic awareness, the participant pool was further reduced according to language background, as discussed below.

The intermediate level course was not open to heritage speakers of Spanish. This meant that any participant reporting two native languages or a non-English native language had exposure to an L3. It made little sense to exclude data from these participants, yet retain data from participants who had learned an L3 later in life. Therefore, at the intermediate level, data analysis was conducted on participants who reported English as their sole native language and Spanish as the only L2. This resulted in the elimination of data from 25 participants due to bilingual native language (12), non-English native language (7), or L3 (6). Thirty-four intermediate proficiency level participants were included in the final data analysis.

The advanced participant pool was also modified. As with the intermediate level, data analysis was restricted to participants reporting English as their sole native language. The advanced course was open to heritage speakers, which meant the elimination of data from participants reporting Spanish/English native languages (10) and Spanish as a native language (6). As is often the case in advanced language courses, L3 contact was prevalent. It seems that by the time students reach advanced language courses, most of them have begun learning a third language. For this reason, elimination of all participants with L3 experience was not possible in the advanced group. Early L3 exposure was possible in this group from childhood bilingualism

² The majority of participants included in the final data analysis reported childhood residence in California. Approximately one-fifth of participants (22.5%) reported childhood residence in other states.

or a native language that was neither English nor Spanish, and these cases accounted for the exclusion of data from 15 participants. Of the thirty-seven remaining participants, 11 reported later L3 acquisition, although all claimed their L3 knowledge to be weaker than their knowledge of Spanish. Elimination of data from these participants would have made the participant pool too small for valid statistical analysis³. Therefore, data from participants was included in the final data analysis.

2.2 Instruments

Three instruments were created for this study: a rating task instrument, a sorting task instrument, and a language background questionnaire. The rating and sorting task instruments required the selection of idioms to be used as target stimuli. First, a list of potential target stimuli was generated, and then this list was narrowed to eliminate translation equivalents in Spanish. Finally, the most frequent and familiar idioms were selected for inclusion in the final instrument. This process is described below.

Selection of items for the three idiom categories (metaphorical image, simile, and opaque) was done through extensive review of 16 electronic idiom-dedicated corpora (See Appendix 1). In addition to screening for the semantic qualities of the three categories in question, idioms had to be at least three words long, not literally translatable into Spanish, and used in the United States⁴.

None of the target items was actually acceptable in translation because if target items had been translatable, L1 transfer would have been a successful option for participants. This would have been problematic because instances of successful transfer are invisible to the researcher (do learners know that something is acceptable because of positive evidence in the L2 or are they

³ Gay and Airasian (2003, p.312) specify 30 as the minimum acceptable sample size for correlational research.

⁴ The websites consulted typically specified “American” idioms as the content.

using L1 knowledge?). Non-translatable target items offered an opportunity to eliminate the former possibility and focus on the role of the L1.

After reviewing the idiom corpora, the three categories were populated as follows:

Metaphorical Image:	62 idioms
Simile:	40 idioms
Opaque:	40 idioms

I translated each idiom literally, and fifteen native speakers of Mexican Spanish marked word-for-word equivalents in Spanish, which I later eliminated. Although most of the eliminated idioms received multiple votes indicating their existence in Spanish, a lone vote was sufficient for removal. Once this process was completed, the following number of idioms remained:

Metaphorical Image:	40 idioms	(22 eliminated)
Simile:	24 idioms	(16 eliminated)
Opaque:	35 idioms	(5 eliminated)

Further narrowing involved determining the most frequent and familiar idioms. Forty-four native speakers of U.S. English⁵ rated the remaining idioms for frequency and familiarity on a 10-point Likert scale. Raters were relatively heterogeneous geographically, with 8 participants (18.1%) reporting childhood or current residence in California, and 36 participants (81.9%) reporting current or prior residence in over 20 states throughout the United States. The average age of raters was 25 years.

To avoid participant fatigue, the 99 idioms were divided into two randomly ordered lists of 44 and 45 items each; thus, each rater reviewed only half of the idiom list. The mean rating for each idiom was calculated and the list was re-sorted into the three categories under study (metaphorical image, simile, and opaque). For each category, the fifteen idioms rated most

⁵ This phase of instrument development was conducted in Mexico. These participants were native speakers of English from the United States living or studying in Mexico.

frequent and familiar were selected for inclusion in the experiment (see Appendix 2 for final list).

2.2.1 *The Rating Task Instrument*

The instrument for the rating task consisted of the 45 non-translatable target items and 45 literally translatable distractors, for a total of 90 idioms. The translatable idioms were only controlled for direct translatability, although care was taken to include an equivalent number of translatable similes. Unlike the other target stimuli, similes have a standard form which was felt to be potentially conspicuous⁶.

Each idiom was translated literally and presented in bold italics in Spanish, with its English equivalent directly below, in parenthesis. A five-point Likert scale was listed to the right of each translated idiom pair, such that the participant could circle a rating. To avoid order effects, the ninety randomized stimuli were divided into three blocks and presented in different orders to each of the participant groups. See Appendix 3 for the rating task instrument.

2.2.2 *The Sorting Task Instrument*

For the sorting task, the forty-five target items were listed in English. Participants were asked to sort the idioms into two groups: semantically transparent or opaque. The instructions provided a simplified explanation of the distinction:

Please sort these idioms into two groups: transparent (T), or opaque (O). A transparent idiom is one whose meaning can be figured out from its words. For example, *play with fire* gives us an image that relates to inviting danger or trouble. An opaque idiom, on the other hand, is one whose words do not give clues to its meaning. For example, the words *butter up* appear to have no relationship to the act of flattery.

⁶ The selection process for the distractors is described in Section 2.3.

As with the rating task, the random list of stimuli was divided into three blocks and presented in different orders to each of the participant groups. See Appendix 4 for the sorting task instrument.

2.2.3 The Language Background Questionnaire

The language background questionnaire consisted of ten questions. It collected demographic data on age, sex, academic major and childhood hometown(s). Open-ended language background questions asked about native language(s), other languages spoken, age and context of first contact with Spanish, and experience abroad. A final question asked participants to rate the similarity of Spanish and English on a ten-point scale. See Appendix 5 for the questionnaire.

2.3 Pilot Study

All instruments were piloted before use in the final experiment to measure the quantity of time needed to complete the tasks and to identify design flaws. Four volunteers participated in the pilot, which was conducted at a small, private university in Mexico. All participants were exchange students, and all were native speakers of U.S. English. Two participants were enrolled in an intermediate level Spanish course, and two in an advanced course.

Before beginning the experiment, participants were told that the study involved the translation of idioms. They were instructed to focus on the Spanish rendering of each idiom as they rated. All subjects were timed. The average time needed to complete all three instruments was 11 minutes. After completion, participant opinions were solicited and feedback noted. Specifically, participants were asked to comment about the general length of the experiment, the clarity of instructions, and the instrument format.

Piloting and consultation with advisors resulted in three changes in the instruments. The most significant change was the addition of distractors. At the time of the pilot, the rating task

involved only the forty-five (non-translatable) target items. Subsequently, forty-five literally translatable idioms were included as distractors. Idioms that had been eliminated during preliminary stages were restored, now as distractors rather than potential target items. Selection and identification of the translatable idioms required collaboration with five native speakers of Mexican Spanish.

Piloting also resulted in the modification of instructions for the sorting task. Pilot participants suggested including examples in the instructions, and these were added for the final instrument. Finally, the rating and sorting task instruments were divided into blocks and presented in three different orders. Prior to piloting, stimuli had been presented in one random order only.

2.4 Procedure

The experiment was conducted with six intact classes (three per proficiency level). With permission from instructors, the experiment was conducted in the final 15 minutes of each class. Before beginning the experiment, participants were told that the study involved idioms and second language learning. They were advised that they had 15 minutes to complete three different tasks in the sequence presented. They were told that they would see a list of English language idioms translated into Spanish. They were to focus on their opinion of the way each idiom sounded in Spanish, and rate accordingly. Participants were also told that their participation was voluntary. One student present declined participation in the experiment and left the classroom before the distribution of materials.

The instruments were presented in stapled sets, with the sorting task following the rating task to preclude participants from considering transparency or opacity when rating translatability.

3.0 Results and Analysis

Results were collected from a total of 71 participants: 34 of intermediate L2 proficiency and 37 of advanced proficiency. For each participant group, the data were coded according to the following criteria, designed to address the hypotheses of the study:

- 1) Demographic information and language background
- 2) Number of times each idiom was judged transparent or opaque
- 3) Average rating of translation acceptability for each idiom

3.1 Language Background of Participants

This study assumes that language background influences metalinguistic awareness, which in turn affects the kinds of intuitions important to the present study. It was therefore essential that the two participant groups be similar enough to allow a valid comparison of their judgments.

Table 1. *Language background of intermediate and advanced proficiency participants*

	Intermediate Level [n=34]	Advanced Level [n=37]
Average Age	19.0 years	19.3 years
Sex	26 female 8 male	30 female 7 male
Childhood Place of Residence	California (26) Other states (8)	California (28) Other states (9)
Average Age of First Contact With Spanish	12.1 years	12.3 years
L2 Learning Environment ¹	School (33) Home (1) Friends (3)	School (37) Home (2)
Length of Residence in a Spanish-Speaking Country	None (24) Two weeks- three months (10)	None (23) One-three months (14)
Spanish-English Similarity Rating (1-10) ²	6.19	5.84

Both intermediate and advanced level learners were highly similar in the linguistic background factors significant for this study, as the table above illustrates.

¹ Some respondents gave multiple answers to this question, resulting in a sum greater than the number of participants.

² The “Spanish-English Similarity Rating” was a cursory attempt to assess one of Kellerman’s (1977) hypotheses that psychotypology influences intuitions about transfer. This question will be discussed further in Section 4.1 of the following chapter.

3.2 Semantic Transparency and Opacity

The first hypothesis of the present study predicted that participants would be able to sort English language idioms according to semantic transparency and opacity, and that this sorting would correspond to the ways that I, the researcher, had classified the idioms. I organized the idioms into three groups: metaphorical images, similes and opaque idioms. As discussed in Chapter 1, I classified metaphorical images and similes as semantically transparent, and opaque idioms as semantically opaque. The complete list of these idioms is presented below.

Table 2. *Idioms listed by semantic category*

Semantically Transparent	Semantically Opaque
back to square one	my cup of tea
a shot in the dark	a piece of cake
a pain in the neck	tie the knot
to think outside the box	bite the bullet
on pins and needles	put two and two together
one track mind	take it with a grain of salt
sugarcoat the truth	under the weather
twenty-four seven	with flying colors
walk on eggshells	to feel blue
between a rock and a hard place	kick the bucket
pay through the nose	in a pickle
put your money where your mouth is	out of the blue
scratch the surface	pull my leg
see eye to eye	push the envelope
pull the plug	quit cold turkey
clean as a whistle	
dry as a bone	
built like a tank	
tough as nails	
dead as a doornail	
out like a light	
sell like hotcakes	
stick out like a sore thumb	
American as apple pie	
like the back of my hand	
hit like a ton of bricks	
like two peas in a pod	
like a deer in the headlights	
work like a charm	
feel like a million bucks	

Results indicate that both intermediate and advanced level participants classified the idioms

in ways that corresponded to these categories. The following table shows the percentages of intermediate proficiency participants who judged each idiom to be either semantically transparent or opaque.

Table 3. *Categorization of idioms as transparent/opaque by intermediate proficiency participants*

Idiom	Semantic Category ³	Transparent	Opaque	N/A ⁴
built like a tank	transparent	97.1%	2.9%	
hit like a ton of bricks	transparent	94.1%	5.9%	
tough as nails	transparent	91.2%	8.8%	
see eye to eye	transparent	91.2%	8.8%	
dry as a bone	transparent	88.2%	11.8%	
walk on eggshells	transparent	88.2%	11.8%	
like a deer in the headlights	transparent	85.3%	14.7%	
a pain in the neck	transparent	85.3%	14.7%	
pull the plug	transparent	79.4%	20.6%	
sugarcoat the truth	transparent	79.4%	20.6%	
like two peas in a pod	transparent	79.4%	18.2%	2.4%
scratch the surface	transparent	76.5%	23.5%	
a shot in the dark	transparent	73.5%	24.2%	2.3%
twenty-four seven	transparent	70.6%	29.4%	
out like a light	transparent	70.6%	29.4%	
on pins and needles	transparent	70.6%	29.4%	
one track mind	transparent	70.6%	29.4%	
between a rock and a hard place	transparent	67.6%	30.3%	2.1%
work like a charm	transparent	67.6%	32.4%	
stick out like a sore thumb	transparent	64.7%	35.3%	
to think outside the box	transparent	64.7%	33.3%	2.0%
like the back of my hand	transparent	61.8%	38.2%	
put your money where your mouth is	transparent	58.8%	41.2%	
American as apple pie	transparent	58.8%	41.2%	
put two and two together	opaque	55.9%	44.1%	
feel like a million bucks	transparent	55.9%	44.1%	
sell like hotcakes	transparent	52.9%	47.1%	
back to square one	transparent	47.1%	52.9%	
dead as a doornail	transparent	44.1%	55.9%	
clean as a whistle	transparent	44.1%	55.9%	
bite the bullet	opaque	20.6%	79.4%	
push the envelope	opaque	20.6%	79.4%	
under the weather	opaque	17.6%	82.4%	
out of the blue	opaque	17.6%	82.4%	
tie the knot	opaque	14.7%	85.3%	
my cup of tea	opaque	8.8%	91.2%	
kick the bucket	opaque	8.8%	91.2%	
to feel blue	opaque	8.8%	91.2%	

³ This category was determined by the researcher, as described in Section 1.6.

⁴ Unintelligible or omitted answers were coded “N/A”.

pull my leg	opaque	8.8%	91.2%
with flying colors	opaque	8.8%	91.2%
take it with a grain of salt	opaque	5.9%	94.1%
pay through the nose	transparent	2.9%	97.1%
a piece of cake	opaque	0.0%	100.0%
quit cold turkey	opaque	0.0%	100.0%
in a pickle	opaque	0.0%	100.0%

This table shows that the majority of intermediate proficiency participants judged the data in ways that corresponded to my classifications, with two exceptional cases. A majority felt that *put two and two together* was semantically transparent, whereas I had categorized it as opaque, and a majority judged *pay through the nose* as opaque rather than transparent. The following table shows the same data for advanced level participants.

Table 4. *Categorization of idioms as transparent/opaque by advanced proficiency participants*

Idiom	Semantic Category	Transparent	Opaque
tough as nails	transparent	100.0%	0.0%
built like a tank	transparent	91.9%	8.1%
see eye to eye	transparent	91.9%	8.1%
hit like a ton of bricks	transparent	86.5%	13.5%
dry as a bone	transparent	81.1%	18.9%
a pain in the neck	transparent	81.1%	18.9%
sugarcoat the truth	transparent	81.1%	18.9%
like two peas in a pod	transparent	81.1%	18.9%
between a rock and a hard place	transparent	78.4%	21.6%
scratch the surface	transparent	78.4%	21.6%
out like a light	transparent	78.4%	21.6%
one track mind	transparent	78.4%	21.6%
walk on eggshells	transparent	75.7%	24.3%
to think outside the box	transparent	75.7%	24.3%
like a deer in the headlights	transparent	73.0%	27.0%
a shot in the dark	transparent	73.0%	27.0%
work like a charm	transparent	73.0%	27.0%
put two and two together	opaque	67.6%	32.4%
on pins and needles	transparent	67.6%	32.4%
stick out like a sore thumb	transparent	64.9%	35.1%
dead as a doornail	transparent	64.9%	35.1%
twenty-four seven	transparent	64.9%	35.1%
feel like a million bucks	transparent	62.2%	37.8%
pull the plug	transparent	59.5%	40.5%
back to square one	transparent	56.8%	43.2%
American as apple pie	transparent	48.6%	51.4%
put your money where your mouth is	transparent	45.9%	54.1%
like the back of my hand	transparent	45.9%	54.1%

sell like hotcakes	transparent	43.2%	56.8%
clean as a whistle	transparent	40.5%	59.5%
tie the knot	opaque	21.6%	78.4%
to feel blue	opaque	18.9%	81.1%
under the weather	opaque	18.9%	81.1%
bite the bullet	opaque	16.2%	83.8%
take it with a grain of salt	opaque	16.2%	83.8%
out of the blue	opaque	16.2%	83.8%
my cup of tea	opaque	10.8%	89.2%
with flying colors	opaque	10.8%	89.2%
pay through the nose	transparent	10.8%	89.2%
pull my leg	opaque	8.1%	91.9%
push the envelope	opaque	8.1%	91.9%
kick the bucket	opaque	5.4%	94.6%
a piece of cake	opaque	2.7%	97.3%
quit cold turkey	opaque	2.7%	97.3%
in a pickle	opaque	2.7%	97.3%

The majority of advanced level participants also sorted the idioms in ways which corresponded to my classification, and coincided with the intermediate level on the exceptional cases. A majority of advanced proficiency participants deemed *put two and two together* to be semantically transparent instead of opaque, and a majority judged *pay through the nose* as opaque rather than transparent. Results demonstrate a correspondence between my classifications of semantic transparency/opacity and the judgments of the participants in this study and suggest the validity of these categories for the population in this experiment. Results also indicate a high degree of correlation between the judgments of each proficiency level. A Pearson correlation test revealed a correlation coefficient r of 0.96 ($p < 0.0001$), representing a 93% overlap in the ways that the two groups classified idioms.

3.3 Acceptability of Idioms in Word-for-Word Translation

The second hypothesis proposed that idioms identified as more semantically transparent would be rated more acceptable in direct translation than idioms identified as semantically opaque. Calculating the correlation of these two values first requires a review of acceptability ratings to later correlate with the aforementioned judgments of semantic transparency. I will

begin by stating that, in general, intermediate and advanced proficiency groups rated idioms in highly similar ways, as shown by the correlation coefficient $r = 0.92$ ($p < 0.0001$), indicating an 84% overlap in acceptability ratings of the two groups. The following scatterplot illustrates the correlation.

Figure 1. *Intermediate vs. advanced acceptability ratings*

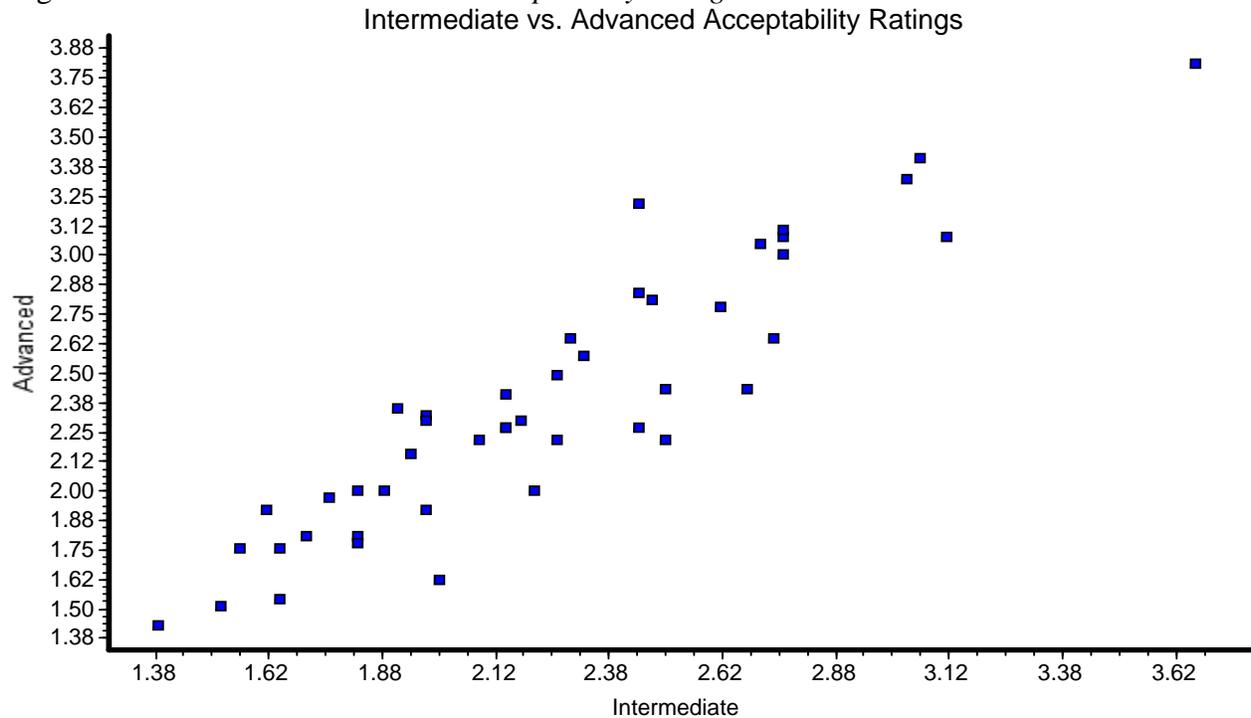


Table 5. *Intermediate and advanced acceptability ratings of transparent and opaque idioms*

	Transparent Idioms	Opaque Idioms
Intermediate Level		
Mean Rating (<i>SD</i>)	2.41 (.47)	1.89 (.30)
Lowest Rating	1.62	1.38
Highest Rating	3.67	2.29
Advanced Level		
Mean Rating (<i>SD</i>)	2.57 (.54)	1.99 (.38)
Lowest Rating	1.62	1.43
Highest Rating	3.81	2.65

Here too, intermediate and advanced proficiency participants rated the transparent and opaque idiom subgroups in similar ways. A paired *t*-test reveals very significant matching of mean acceptability ratings. For intermediate vs. advanced ratings of transparent idioms (Figure 2) $t(29) = 3.27, p = 0.003$. For intermediate vs. advanced ratings of opaque idioms (Figure 3) $t(14) = 3.08, p = 0.008$.

Figure 2. *Intermediate vs. advanced acceptability ratings of transparent idioms*

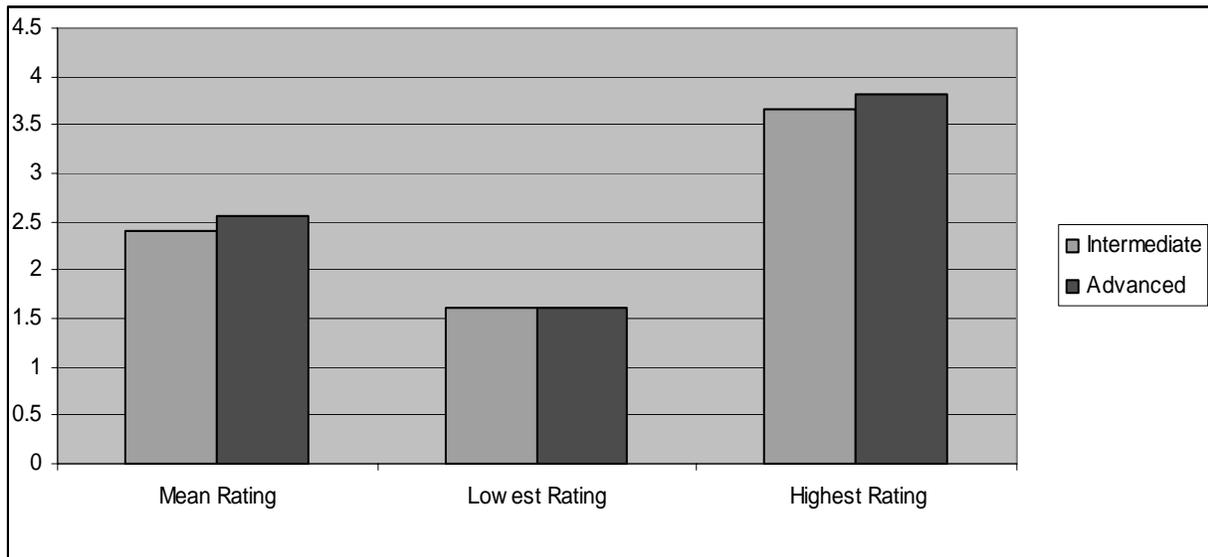
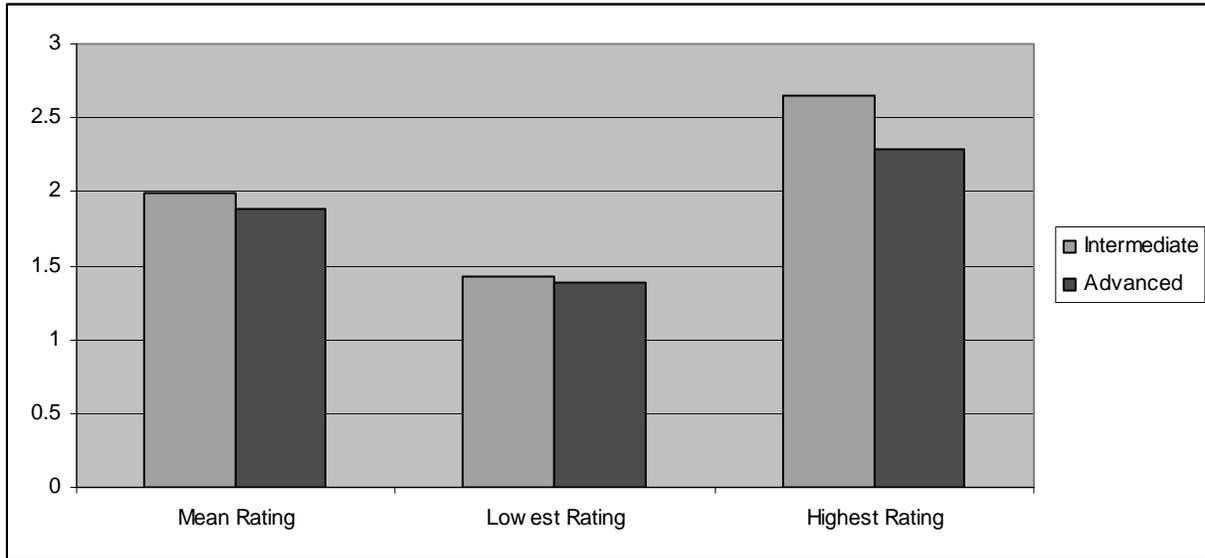


Figure 3. *Intermediate vs. advanced acceptability ratings of opaque idioms*



3.4 Semantic Transparency and Acceptability Judgments

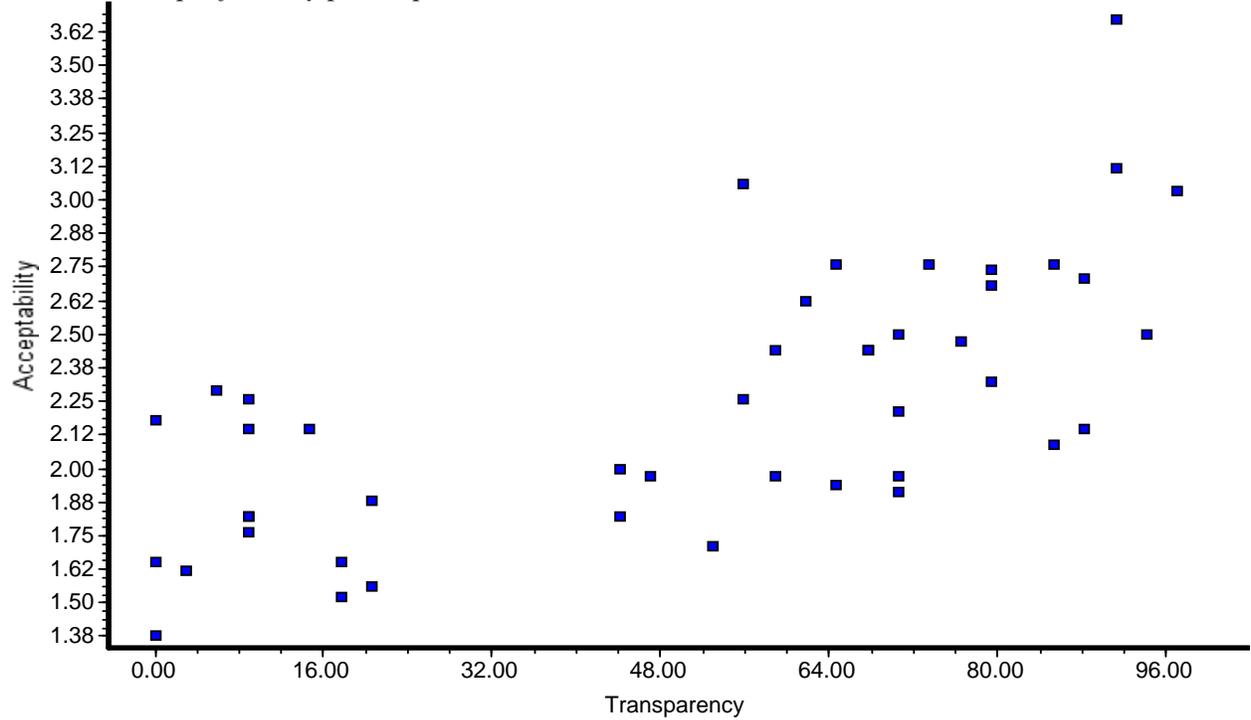
Now we can return to the hypothesis that idioms identified as more semantically transparent will be rated more acceptable in direct translation than semantically opaque idioms. Given the results of the present study, this hypothesis is not strongly supported. For both the intermediate and advanced proficiency levels, there is only a moderate correlation between semantic transparency judgments and acceptability of word-for-word translation (see Table 6).

Table 6. *Correlation between semantic transparency and acceptability of direct translation*

	Intermediate Level	Advanced Level
Correlation Coefficient r	0.68	0.67
Coefficient of determination r^2	0.46	0.45
p value	<0.0001	<0.0001

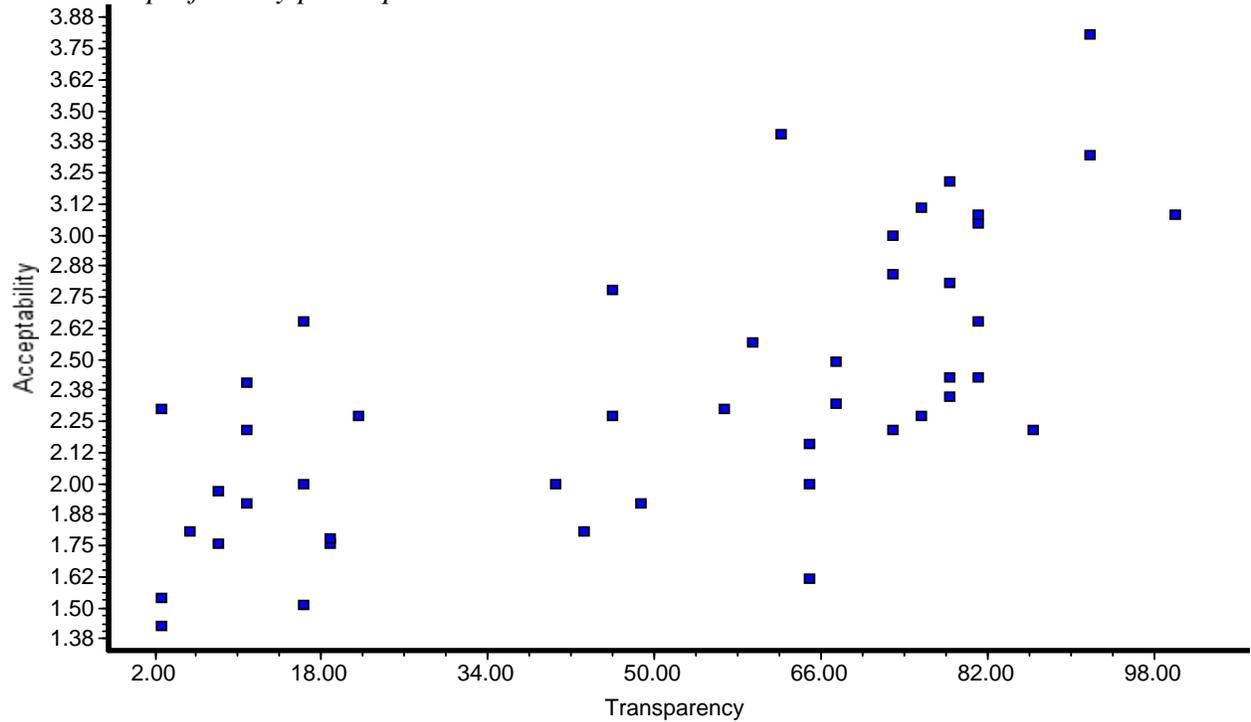
I had predicted, for example, that an idiom judged highly transparent would also be rated highly acceptable in direct translation, but results show that the shared variance of these two variables is less than 50% for both the intermediate and advanced groups. The following scatterplots illustrate the degree of correlation: 46% for the intermediate group (Figure 4) and 45% for the advanced group (Figure 5).

Figure 4. Correlation between semantic transparency and acceptability of direct translation for intermediate proficiency participants



Note. Acceptability values are mean ratings and transparency values are percentages (as in Table 3).

Figure 5. Correlation between semantic transparency and acceptability of direct translation for advanced proficiency participants



Note. Acceptability values are mean ratings and transparency values are percentages (as in Table 4).

3.5 Intermediate vs. Advanced Proficiency Judgments of Acceptability

The final hypothesis of this study predicted that intermediate learners of Spanish would be more willing to accept the direct translation of idioms than advanced learners of Spanish. Results do not support this hypothesis. A paired t -test reveals extremely significant matching of mean acceptability ratings $t(44) = 4.13$ ($p = 0.0002$). That is, the difference of the means is negligible and it is highly unlikely that this outcome occurred by chance. The summary of data for this test is presented below.

Table 7. *Intermediate vs. advanced acceptability ratings*

	Intermediate	Advanced
Mean Rating	2.24	2.38
Standard Deviation	.49	.56
Lowest Rating	1.38	1.43
Highest Rating	3.67	3.81

Results indicate that intermediate and advanced proficiency participants rate the data in essentially similar ways. These results corroborate the correlation data presented in Section 3.3 above.

4.0 Discussion

The first hypothesis of this study predicted that participants would sort idioms into the two semantic categories that I had defined: semantically transparent and opaque. I wanted to establish that learners discern these qualities in idioms and so validate the distinction of semantic transparency/opacity for the population of this study. This hypothesis was confirmed, as the majority of experiment participants organized the idioms according to these categories. The second hypothesis predicted that perceptions of semantic transparency/opacity would have a strong effect on judgments of acceptability. I based the second hypothesis on Kellerman (1983), who states, “although idiomatic expressions are generally stigmatized by learners, their potential acceptability also depends crucially on their semantic transparency” (p.118). Results did not strongly support this claim, however, since idioms identified as semantically transparent were not necessarily judged more acceptable in direct translation than idioms identified as semantically opaque. There are several explanations for these results.

The work of Keysar and Bly (1995) offers a cautionary perspective on the notion of semantic transparency. Using a set of 15 archaic idioms in the English language, they taught participants the original “correct” figurative meaning or the opposite meaning. For example, one group of participants learned that *to lay out in lavender* meant “to chastise harshly and in no uncertain terms”, while another group learned that it meant “to sweet talk, to flatter” (p. 94). Following the lesson, participants rated the learned meaning as more transparent than the non-learned meaning, regardless of which meaning they had been taught. These results suggest that semantic transparency is not necessarily a function of underlying metaphoric concepts or semantic elements; rather, it may be the result of idiom knowledge and use. In a sense, the conclusion is tautological: we think a particular idiom is semantically transparent because we have well-

established connections between form and meaning. This idea is particularly interesting in light of the “exceptional” case of *put two and two together*, for example. For native speakers of U.S. English, the meaning of this idiom may seem transparent, as it was for the majority of participants in this study, because they know that the idiom refers to “adding two and two to equal four”. Furthermore, the notion of “understanding” is metaphorically linked to mathematics in other figurative expressions such as *adding it all up* or *figuring it out*. Especially if it is heard out of context, speakers of other languages may not find *put two and two together* so transparent and may be apt to wonder what two things are being put together and why.

It is also likely that learners account for much more than an idiom’s imagery in their assessments of transferability. Intuitions of cultural elements, phrasing, or vocabulary frequency may also be important factors. It is probably very rare to find an idiom that is free from these effects, which may explain why Kellerman asserts that “learners size up their own language, and evaluate idiomatic expressions as ‘marked’” (1978, p.62). For example, although I classified *feel like a million bucks* as transparent because the metaphor is semantically accessible, there are problems with its translation into Spanish. The verb “feel” would be reflexive, and there is the problem of translating the word “bucks”, a culturally specific term. Translating it as “dólares” would result in an implausible idiom in Spanish since Spanish-speaking nations have other words for their currency. Such considerations of syntactic, lexical and cultural content probably impacted judgments of transferability. This may explain why perceptions of semantic transparency were only moderately correlated with judgments of acceptability in translation.

The third hypothesis of this study predicted that less proficient learners would work under the assumption that the L2 functioned much like the L1 and would therefore be more apt to accept direct translations. I based this prediction on the general consensus that L2 proficiency is an

important factor in L1 transfer (Kellerman, 1977, Ringbom, 1986; Odlin, 1989; Swan, 1997; Müller-Lancé, 2003, Murphy, 2003) and on research of the bilingual mental lexicon which has proposed that in early stages, learners may automatically recur to L1 transfer (Kroll & DeGroot, 1997; Altarriba & Mathis, 1997; Hall, 2002). It seemed plausible that less proficient learners are more consciously and unconsciously reliant on the L1. Results of the present study, however, show that intermediate learners of Spanish are not more willing to accept the direct translations of idioms than advanced learners. In fact, intermediate and advanced learners have extremely similar opinions about the acceptability of word-for-word translations. These findings support Kellerman (1978), wherein “despite a wide range of proficiency, years of exposure, and age among subjects, the judgments of transferability were remarkably stable across groups of learners” (as cited in Kellerman, 1983, p.118).

Why did the participant groups in the present study have such similar judgments? It could be that the two groups were not sufficiently different in terms of L2 proficiency to produce divergent results. And yet, the advanced group contained 11 individuals with L3 experience, while none in the intermediate group had this metalinguistic “advantage”, making the parity in results for both groups even more remarkable. The context of the experiment may have also played a role. The experiment was conducted in the highly culturally and linguistically diverse state of California, and it is possible that incidental contact with other languages influenced the metalinguistic awareness of the participants.

The similarity of participant judgments may have a more deep-rooted explanation, as suggested in Bley-Vroman (1989). He proposes that learner perceptions of the L1 facilitate second language learning. Since adult learners do not seem to have full access to Universal Grammar for the purposes of L2 acquisition, they use their intuitions about language universals

to consciously shape their knowledge of the new language. Bley-Vroman sees the learner as actively constructing a kind of “surrogate” for Universal Grammar, partially through L1 transfer. As he states, “the native language must be sifted: That which is likely to be universal must be separated from that which is an accidental property of the native language” (52). In other words, learners share similar intuitions about which items are specific to the L1, and which are neutral and likely to exist in the second language.

4.1 Methodological Concerns

Several methodological issues merit comment. Salient issues involve both the instrument development and the participant pool. To begin, the selection of target stimuli for the experiment involved collaboration with many individuals, not only to determine idiom translatability, but also to establish the most frequent and familiar idioms. This process was inherently imprecise because it involved individual subjective judgments. For example, speakers of Mexican Spanish determined idiom non-translatability (see Section 2.2), but speakers from other Spanish-speaking regions, indeed, even a different population of Mexican Spanish-speakers, would likely have had different judgments.

The subjectivity of individual judgment was also a factor in the selection of the most frequent and familiar idioms (see Section 2.2). Idiom frequency and familiarity were assumed to be important for transfer, and age and place of residence were assumed to impact idiom familiarity and use. To my knowledge, no idiom study has controlled for these variables or mentioned their significance, but it seemed reasonable that generational and regional linguistic variation would extend to idioms. As a result, the age and place of residence were tracked for all participants during phases of target stimuli selection and data analysis. It is notable that the majority of experiment participants (76.1%) were from California, while the majority (81.9%) who chose the

most frequent and familiar idioms were from other states. It is possible that the participants who determined the target items had very different opinions of what was “frequent and familiar” (and therefore potentially more transferable) than the participants who ultimately took part in the experiment. And is it almost certain that a different set of raters would have selected different idioms as target stimuli.

Relying on individual judgments for the selection and refinement of target stimuli in this way is inherently arbitrary. Liu (2003) cautions that intuition-based selection of idioms for the purposes of teaching and research often yields seldom-used expressions and fails to include those which are frequently-used. He suggests that mass corpora contain a truer reflection of idiom use and frequency. Future studies could explore corpus analysis as a method to determine or complement the selection of target stimuli.

Also notable was the different number of idioms used as target stimuli in each of the semantic categories. The transparent category included 15 metaphorical images and 15 similes, for a total of 30 idioms, while the opaque category contained only 15 opaque idioms. These categories should have contained an equal number of target stimuli for a more valid comparison of results.

Finally, the language background questionnaire contained a question that only tangentially addressed psychotypology. I asked participants to rate their opinion of the similarity of Spanish and English in general, on a scale of one to ten. This study does not investigate the role of psychotypology in transfer, and the question itself did not adequately address the topic. This question should have been omitted.

4.2 Pedagogical Implications and Future Research

Research indicates that second language learners want to learn idioms (Liontas, 2002). This thesis shows that learners already have tools to help use idioms appropriately in an L2, namely, they are not indiscriminate about transfer. A cautious approach will often serve them well because many idioms are not directly translatable; however, as Irujo (1986, 1993) demonstrates, some idioms have a parallel existence in various languages, others are similar, and others are unique. Language instructors can point out these variations, since learners may be unaware. As Kellerman (1977) comments, “I have often noted the amazement on our students’ faces when they do discover the existence of [L1] idioms in [the L2]” (p.111).

It is important to emphasize that this study makes no predictions about actual behavior. A high acceptability rating does not necessarily mean that a learner will be more likely to attempt to produce a literal translation of an idiom. And of course, even an erroneous direct translation may be intentional, for word play or to underscore solidarity with another learner¹, as in expressions such as *colgar afuera* (to hang out) and *eso chupa* (that sucks)². As Odlin (1989) remarks, “the importance of transfer in any situation varies largely according to social context” (p.145).

This study only analyzed participant judgments of non-translatable idioms. Time constraints precluded a more thorough analysis of data, which would have examined participant responses to the translatable fillers. Would translatable items receive higher acceptability ratings? Would more proficient participants display more “knowledge” in this area compared to less proficient participants? Further research could investigate these questions.

¹ Kellerman (1995) asserts that intentional crosslinguistic wordplay “unites [L2 learners] as fellow-sufferers with a common language” (p. 135), suggesting the sociopragmatic function of transfer in this circumstance.

² These examples were used by an instructor of a class in the experiment. He used these expressions to humorously illustrate the literal translation of an idiom.

Results showed that intermediate and advanced learners have essentially similar judgments about L1 items in translation, and as discussed above, these two groups may simply be too close in proficiency for scores to differ considerably. It is possible that the intermediate level participants are already too proficient, too experienced to rely naively on the L1. It would be very interesting to ask monolinguals their opinion of which idioms could be said in an L2. Such a study could reveal whether intuitions about the L1 change significantly with L2 proficiency, or if these intuitions are something more stable and shared, as Bley-Vroman (1989) suggests.

It is still unclear how learners arrive at their judgments about the transferability of idioms. They could be guessing, reasoning, using the sound or look of the phrase, linguistic folk knowledge, or any number of conscious strategies or unconscious processes not explored in this study. These are issues of interest to both teachers and researchers. The very extensive topic of collocations, including idioms, but also extending to other formulaic speech such as greetings, fillers, euphemisms, and discourse connectors provides a largely untapped area to examine the influence of the L1 and learner intuitions about how these ubiquitous expressions are used in an L2.

4.3 Conclusion

This thesis was motivated by Kellerman's assertion that learners generally reject the transfer of idioms. I wondered how learners would approach idioms. Would they blithely accept direct translations from their first language? Or would they be more skeptical? Would learner judgments change depending on their proficiency? On the idioms? The participants in this study showed similar patterns of acceptance toward idiom translations independent of proficiency level or idiom type. These results prompt other questions about both the effect of proficiency level and semantic characteristics. It is intriguing that in this study intuitions about transferability

were essentially the same for both levels, although it may be that the two groups here were too similar in proficiency for results to differ considerably. It is even more interesting that semantic qualities are layered in such complex ways, and that one's view of meaning may be largely influenced by years of exposure and use, as suggested by Keysar and Bly (1995). This calls into question dichotomous distinctions such as transparent/opaque or figurative/literal. It may be that our intuitions of such distinctions are as multifaceted and potentially "incorrect" as our intuitions of transferability.

5.0 References

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Appendix 1

Electronic Idiom-Dedicated Corpora

http://www.usingenglish.com/links/Idiomatic_Expressions/

<http://casunsetz.com/metaphor.htm>

<http://casunsetz.com/cliches.htm>

<http://www.gardendigest.com/cliche.htm#Links>

<http://www.usingenglish.com/reference/idioms/B-list.html>

<http://users.tinyonline.co.uk/gswithenbank/sayindex.htm>

<http://www.edict.com.hk/vlc/idioms/directory/>

<http://www.idiomsite.com/>

www.idiomconnection.com

<http://www.clichesite.com/index.asp>

http://home.t-online.de/home/toni.goeller/idiom_wm/

<http://humanities.byu.edu/elc/student/idioms/idiomsmain.html>

<http://www.englishdaily626.com/idioms.php>

<http://www.speak-read-write.com/idiom.html>

<http://www.eslcafe.com/idioms/id-list.html>

<http://www.goenglish.com/Index.asp>

Appendix 2

Complete List of Target Stimuli

Metaphorical Images

back to square one
a shot in the dark
a pain in the neck
to think outside the box
on pins and needles
one track mind
sugarcoat the truth
twenty-four seven
walk on eggshells
between a rock and a hard place
pay through the nose
put your money where your mouth is
scratch the surface
see eye to eye
pull the plug

Opaque Idioms

my cup of tea
a piece of cake
tie the knot
bite the bullet
put two and two together
take it with a grain of salt
under the weather
with flying colors
to feel blue
kick the bucket
in a pickle
out of the blue
pull my leg
push the envelope
quit cold turkey

Similes

clean as a whistle
dry as a bone
built like a tank
dead as a doornail
tough as nails
out like a light
sell like hotcakes
stick out like a sore thumb
like the back of my hand
American as apple pie
like two peas in a pod
like a deer in the headlights
work like a charm
hit like a ton of bricks
feel like a million bucks

Appendix 3
Rating Task Instrument

Idiom Survey (V1)

The following expressions are literal Spanish translations of English language idioms. On a scale of 1 to 5, please rate how successfully these translations convey the original meaning of the English idioms. (1 = a very poor translation, 5 = what a native Spanish speaker would say)

1	<i>entre una piedra y un lugar duro</i> (between a rock and a hard place)	1 2 3 4 5	11	<i>caliente como el infierno</i> (hot as hell)	1 2 3 4 5
2	<i>entrar por un oído y salir por el otro</i> (go in one ear and out the other)	1 2 3 4 5	12	<i>un pedazo de pastel</i> (a piece of cake)	1 2 3 4 5
3	<i>llenar los zapatos de alguien</i> (fill someone's shoes)	1 2 3 4 5	13	<i>cruzar los dedos</i> (cross one's fingers)	1 2 3 4 5
4	<i>con los brazos abiertos</i> (with open arms)	1 2 3 4 5	14	<i>poner tu dinero donde está tu boca</i> (put your money where your mouth is)	1 2 3 4 5
5	<i>destacarse como un pulgar dolorido</i> (stick out like a sore thumb)	1 2 3 4 5	15	<i>corazón de oro</i> (heart of gold)	1 2 3 4 5
6	<i>buscar una aguja en un pajar</i> (look for a needle in a haystack)	1 2 3 4 5	16	<i>patear la cubeta</i> (kick the bucket)	1 2 3 4 5
7	<i>jalar el enchufe</i> (pull the plug)	1 2 3 4 5	17	<i>en la punta de la lengua</i> (on the tip of one's tongue)	1 2 3 4 5
8	<i>dormir como un bebé</i> (sleep like a baby)	1 2 3 4 5	18	<i>muerto como un clavo de puerta</i> (dead as a doornail)	1 2 3 4 5
9	<i>mi taza de té</i> (my cup of tea)	1 2 3 4 5	19	<i>veinticuatro-siete</i> (twenty-four seven)	1 2 3 4 5
10	<i>mariposas en el estómago</i> (butterflies in one's stomach)	1 2 3 4 5	20	<i>rasgar la superficie</i> (scratch the surface)	1 2 3 4 5

Appendix 3
Rating Task Instrument

21	<i>como un venado en los faros</i> (like a deer in the headlights)	1	2	3	4	5	33	<i>vender como hotcakes</i> (sell like hotcakes)	1	2	3	4	5
22	<i>apagado como una luz</i> (out like a light)	1	2	3	4	5	34	<i>juntar dos y dos</i> (put two and two together)	1	2	3	4	5
23	<i>un tiro en la oscuridad</i> (a shot in the dark)	1	2	3	4	5	35	<i>cortado de la misma tela</i> (cut from the same cloth)	1	2	3	4	5
24	<i>tirar la toalla</i> (throw in the towel)	1	2	3	4	5	36	<i>sentirse azul</i> (to feel blue)	1	2	3	4	5
25	<i>armado hasta los dientes</i> (armed to the teeth)	1	2	3	4	5	37	<i>tomarlo con un grano de sal</i> (take it with a grain of salt)	1	2	3	4	5
26	<i>en la cima del mundo</i> (on top of the world)	1	2	3	4	5	38	<i>play by ear</i> (tocar de oído)	1	2	3	4	5
27	<i>pegar como una tonelada de ladrillos</i> (hit like a ton of bricks)	1	2	3	4	5	39	<i>Americano como pay de manzana</i> (American as apple pie)	1	2	3	4	5
28	<i>morder la bala</i> (bite the bullet)	1	2	3	4	5	40	<i>ganar por una nariz</i> (win by a nose)	1	2	3	4	5
29	<i>usar los pantalones</i> (wear the pants)	1	2	3	4	5	41	<i>seco como un hueso</i> (dry as a bone)	1	2	3	4	5
30	<i>corazón de piedra</i> (heart of stone)	1	2	3	4	5	42	<i>sentirse como un millón de dólares</i> (feel like a million bucks)	1	2	3	4	5
31	<i>hecho como un tanque</i> (built like a tank)	1	2	3	4	5	43	<i>hablar a las espaldas de alguien</i> (talk behind someone's back)	1	2	3	4	5
32	<i>desde el fondo de mi corazón</i> (from the bottom of my heart)	1	2	3	4	5	44	<i>jalar mi pierna</i> (pull my leg)	1	2	3	4	5

Appendix 3
Rating Task Instrument

45	<i>apretarse el cinturón</i> (tighten one's belt)	1	2	3	4	5	57	<i>limpio como un silbato</i> (clean as a whistle)	1	2	3	4	5
46	<i>jugar con fuego</i> (play with fire)	1	2	3	4	5	58	<i>tener un pie en la tumba</i> (have one foot in the grave)	1	2	3	4	5
47	<i>feo como pecado</i> (ugly as sin)	1	2	3	4	5	59	<i>con la cola entre las patas</i> (with one's tail between one's legs)	1	2	3	4	5
48	<i>amarrar el nudo</i> (tie the knot)	1	2	3	4	5	60	<i>caer como moscas</i> (fall like flies)	1	2	3	4	5
49	<i>negro como la noche</i> (black as night)	1	2	3	4	5	61	<i>comer como un pájaro</i> (eat like a bird)	1	2	3	4	5
50	<i>con colores volando</i> (with flying colors)	1	2	3	4	5	62	<i>pagar a través de la nariz</i> (pay through the nose)	1	2	3	4	5
51	<i>lavarse las manos de algo</i> (wash one's hands of something)	1	2	3	4	5	63	<i>funcionar como un hechizo</i> (work like a charm)	1	2	3	4	5
52	<i>salvado por la campana</i> (saved by the bell)	1	2	3	4	5	64	<i>duro como clavos</i> (tough as nails)	1	2	3	4	5
53	<i>tener las manos atadas</i> (have one's hands tied)	1	2	3	4	5	65	<i>como el dorso de mi mano</i> (like the back of my hand)	1	2	3	4	5
54	<i>caminar sobre cáscaras de huevo</i> (walk on eggshells)	1	2	3	4	5	66	<i>en un pepino</i> (in a pickle)	1	2	3	4	5
55	<i>dejar pavo frío</i> (quit cold turkey)	1	2	3	4	5	67	<i>pensar fuera de la caja</i> (think outside the box)	1	2	3	4	5
56	<i>libre como un pájaro</i> (free as a bird)	1	2	3	4	5	68	<i>comer como un cerdo</i> (eat like a pig)	1	2	3	4	5

Appendix 3
Rating Task Instrument

69	<i>en el aire</i> (in the air)	1	2	3	4	5
70	<i>puñalar en la espalda</i> (stab in the back)	1	2	3	4	5
71	<i>tomar el toro por los cuernos</i> (take the bull by the horns)	1	2	3	4	5
72	<i>empujar el sobre</i> (push the envelope)	1	2	3	4	5
73	<i>duro como una piedra</i> (hard as a rock)	1	2	3	4	5
74	<i>la oveja negra de la familia</i> (the black sheep of the family)	1	2	3	4	5
75	<i>bajo el clima</i> (under the weather)	1	2	3	4	5
76	<i>romper el hielo</i> (break the ice)	1	2	3	4	5
77	<i>verse ojo a ojo</i> (see eye to eye)	1	2	3	4	5
78	<i>un dolor en el cuello</i> (a pain in the neck)	1	2	3	4	5
79	<i>azucarar la verdad</i> (sugarcoat the truth)	1	2	3	4	5
80	<i>regresar al cuadro uno</i> (go back to square one)	1	2	3	4	5

81	<i>sobre alfileres y agujas</i> (on pins and needles)	1	2	3	4	5
82	<i>del azul</i> (out of the blue)	1	2	3	4	5
83	<i>dulce como la miel</i> (sweet as honey)	1	2	3	4	5
84	<i>dar luz verde</i> (give the green light)	1	2	3	4	5
85	<i>mente de un carril</i> (one track mind)	1	2	3	4	5
86	<i>como dos chícharos en una vaina</i> (like two peas in a pod)	1	2	3	4	5
87	<i>ligero como una pluma</i> (light as a feather)	1	2	3	4	5
88	<i>ser todos oídos</i> (be all ears)	1	2	3	4	5
89	<i>leer entre líneas</i> (read between the lines)	1	2	3	4	5
90	<i>suave como la seda</i> (smooth as silk)	1	2	3	4	5

Appendix 4

Sorting Task Instrument

Idiom Survey (V1)						
Please sort these idioms into two groups: transparent (T), or opaque (O). A transparent idiom is one whose meaning can be figured out from its words. For example, play with fire gives us an image that relates to inviting danger or trouble. An opaque idiom, on the other hand, is one whose words do not give clues to its meaning. For example, the words butter up appear to have no relationship to the act of flattery.						
		T / O				T / O
1	between a rock and a hard place			24	pull my leg	
2	stick out like a sore thumb			25	tie the knot	
3	pull the plug			26	with flying colors	
4	my cup of tea			27	walk on eggshells	
5	a piece of cake			28	quit cold turkey	
6	put your money where your mouth is			29	clean as a whistle	
7	kick the bucket			30	pay through the nose	
8	dead as a doornail			31	tough as nails	
9	twenty-four seven			32	like the back of my hand	
10	scratch the surface			33	in a pickle	
11	like a deer in the headlights			34	to think outside the box	
12	out like a light			35	push the envelope	
13	a shot in the dark			36	work like a charm	
14	hit like a ton of bricks			37	under the weather	
15	bite the bullet			38	see eye to eye	
16	built like a tank			39	a pain in the neck	
17	sell like hotcakes			40	sugarcoat the truth	
18	put two and two together			41	back to square one	
19	to feel blue			42	on pins and needles	
20	take it with a grain of salt			43	out of the blue	
21	American as apple pie			44	one track mind	
22	dry as a bone			45	like two peas in a pod	
23	feel like a million bucks					

