

FACTORS AFFECTING IDIOM COMPREHENSION IN  
NATIVE AND NON-NATIVE SPEAKERS  
OF ENGLISH

By

REBECCA E. KOBISKIE

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Kansas State University

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Thesis Approved:

*Nancy E. Monroe*

Thesis Adviser

*Kaye Strom*

*Connie K. Stoul*

*Agued Salysi*

Dean of the Graduate College

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## CHAPTER I

### INTRODUCTION

Figurative expressions of all types frequently occur within the English language. In the spoken form they can be heard during conversations, lectures, news reports, and other televised events, while in written form they are found in newspapers, poems, novels, and text books (Nippold, 1988). Figurative language holds a powerful pragmatic function and skillful utilization is required for reading, learning, and making sense of information in the real world (Secord and Wiig, 1993). Several types of figurative language exist including proverbs, metaphors, similes, slang terms, ambiguity, idioms, and sarcasm. The present study examines one aspect of figurative language development: the ability to comprehend and explain idiomatic expressions. Idioms are expressions that can have either a literal or a figurative meaning depending on the linguistic context in which they are found. For example, the sentence "*Don't spill the beans,*" could have the literal meaning, *don't knock over the beans*; or in the appropriate context it could have the figurative meaning, *don't reveal the secret*.

Figurative language development among native English speakers, including the production and comprehension of idioms, begins during early childhood and continues well into adulthood. Research by Abkarian, Jones, and West (1992) demonstrated that while young children tended to interpret idioms in a literal manner, they also

demonstrated an awareness of nonliteral interpretations through figurative explanations of some idioms. Their study tested comprehension of 10 common idioms in preschool children. Twelve children were selected at age levels 3:6 (years:months), 4:6, and 6:6; and ten children, at age 5:6. The idiomatic expressions were read to the children either in the context of a short story or in isolation, and the children were asked to point to the picture that best applied to the expression. Following their answers, the children were asked to provide a rationale for their picture choices. Contrary to models of idiom development, the results of the study demonstrated a significant linear trend for younger children to interpret idioms more literally with increasing age from the ages of 3.5 to 6.5. However, there was a steady increase in idiomatic rationale statements, both correct and incorrect, when the children were asked to explain their picture choices. This suggests that the young children were aware of a figurative interpretation despite their literal picture choices. Abkarian, et al. (1992) suggested that the literal picture choices may have stemmed from one or more of the following variables. Socioeconomic status is a child-internal variable which affects children's figurative language abilities because of its contributions to the experiences and the world knowledge of children. Other child-internal variables include conversational ability and a child's risk-taking style while methodologic variables refer to the specific idioms being tested and the methods used in the evaluation process. When designing and interpreting idiom research, it is important to consider both internal and methodological variables as they have the potential to influence idiom comprehension in all speakers (Abkarian, et al., 1992)

During the school-age and adolescent years idiom explanations gradually become more figurative (Ackerman, 1982; Douglas & Peel, 1979; Nippold & Martin, 1989; Prinz,



1983; Strand & Fraser, 1979; Thorum, 1986). Numerous studies have demonstrated this by using adolescents from 11 to 17 years of age as subjects. Nippold and Martin (1989) examined idiom interpretation in isolation and context using adolescents ages 14 through 17. The study included 475 adolescents as subjects. A modified version of the idioms subtest from the *Fullerton Language Test for Adolescents: Experimental Edition* (Thorum, 1980) was used to test the adolescents. The test consisted of 20 idioms presented in written form which the students were instructed to explain. Half of the idioms occurred in context, while the other half were presented in isolation. While results demonstrated that there was greater accuracy for idioms in context than isolation, it was also found that accuracy for both presentation conditions slowly improved as subject age increased.

Other studies such as those by Nippold and Taylor (1995) and Nippold and Rudzinski (1993) also found improved comprehension as subject age increased. Both of these studies examined idiom understanding in children and adolescents enrolled in Grades 5, 8, and 11, and differed only in the way understanding was assessed. The Nippold and Rudzinski study (1993) utilized an explanation task where students were instructed to write down their explanations of 24 idioms presented within a short paragraph which provided supportive context. Nippold and Taylor (1995) used the same idioms for their study, but administered a forced-choice task to determine idiom understanding. All the idioms were presented within a supportive context. While idiom understanding was found to increase as subject age increased, it is important to note that even the oldest subjects (17 years of age) had not yet completely mastered the idiom tasks (82% accuracy). This provides strong evidence that idiom comprehension is still

developing into adulthood.

A study reported by Brasseur and Jimenez (1989) found when university students, ages 18 to 43, were tested using the *Fullerton Subtest of Idioms* (Thorun, 1980) almost half of the students in the 18-21 year range failed to score within the "Competence Range." Seventy-one university students participated in the study, and were divided into three groups based on their age. The "Competence Range" was defined in the Fullerton test manual (Thorun, 1980) as a raw score within the 13-20 point range (from a possible score of 20) for adolescents between 11 and 18 years of age. Using these criteria Brasseur and Jimenez (1989) reported that 51% of the 18-21 year-old group, 84% of the 22-29 year-old group, and 91% of the 30+ year-old group fell within this range. These findings support the belief that idiom comprehension improves with increasing chronological age. Yet results suggest that clinicians should be cautious when interpreting the results of an idiom assessment, especially when assessing idiom comprehension in second-language learners (Brasseur and Jimenez, 1989).

At the present time, the English as a second language (ESL) population is rapidly increasing in the United States (Cheng, 1996; Clark & Linden, 1997; Dunkel, 1991; Gándara, 1994; Steffani & Nippold, 1997; Quinn, Goldstein, and Peña, 1996). The 1998/1999 annual report of the Institute of International Education (IIE) reported that international students represent about 2% of all four-year undergraduate enrollments and more than 11% of graduate enrollments. (The IIE census is based on a survey of 2,571 accredited U.S. institutions, with a 94.3% response.) The 490,933 international students who attended U.S. colleges and universities in the 1998/99 academic year represent a 2% increase in international student enrollment from the previous year. Asian students made

up over one half of the international student enrollment (56%). China was the leading country of origin for international students (51,001), followed by Japan (46,406), and Korea (39,199). While the two top fields of study for international students were health and life sciences, a growth in areas such as computer science and the arts indicates that international students are showing interest in a greater diversity of fields.

International students comprise only 3% of America's total higher education population, yet they have a significant impact on the U.S. campuses and communities in which they study (IIE, 1999). A total of 70,501 international scholars were reported in the IIE study as teaching or conducting research during 1998/99. This number is up 7.6% from the previous year (65,494). With more international teachers and international faculty members at U.S. colleges and universities, the need for this population to communicate with others in an effective, sophisticated, and complex manner becomes evident. Not only are they relied upon to transfer information to students, but they are also required to communicate with other professionals. This increase in international students has a direct impact on both educators and service providers, such as speech-language pathologists (Gándara, 1994; Steffani & Nippold, 1997), whose aid is sought by many individuals experiencing communication limitations in the workplace or schools (Steffani & Nippold, 1997; Quinn, et al, 1996).

Researchers and clinicians in the field of speech-language pathology often tend to focus on an ESL speaker's pronunciation of English. This is evidenced by the fact that the current assessment tools, standardized tests, and therapy materials designed for evaluating and treating ESL speakers focus primarily on speech intelligibility and accent modification. However, adequate language skills are also a critical aspect of

communicating effectively with others. Not only should language skills be evaluated, but assistance should be provided so that ESL speakers can become more proficient in spoken and written American English. However, it is important to note that at the present time, it is the position of the American Speech-Language-Hearing Association (ASHA, 1998) that only those speech-language pathologists who possess the required knowledge and skills to provide English as a Second Language (ESL) instruction in school settings should provide direct ESL instruction. Speech-language pathologists who do not possess the requisite skills (i.e. specialized academic preparation and competencies in areas such as second language acquisition theory, comparative linguistics, and ESL methodologies, assessment, and practicum) should not provide direct instruction in ESL, but should collaborate with ESL instructors in providing pre-assessment, assessment, and/or intervention with English as a Second Language speakers in school settings.

While figurative language is one aspect of language competency that is often difficult for second-language learners, it is often overlooked because of the complexity involved in its comprehension and production. Idioms are known to add confusion and difficulty to the learning of language for all students, but the confusion and resulting frustration is even greater for second-language learners (Bromley, 1984). Researchers have offered several explanations for this difficulty. Irujo (1986a) proposed that both the non-literal nature of idioms and their literal counterparts make them very difficult for second-language learners to comprehend. While a native speaker can quickly realize which meaning is intended, the second-language learner is often unaware of the historical and cultural history of the phrase and is left trying to figure out the meaning of the expression by relying on contextual cues alone. Also adding to the confusion is the

limited exposure that second-language learners have with idioms in meaningful, interactive situations. Often, language that addresses second-language learners omits idioms and utilizes simple, concrete, everyday vocabulary or is limited to more formal, technical discourse that discourages such informality. Irujo (1986a) also suggested that even when learners are able to comprehend the meanings of idioms, they still find it very difficult to use them correctly. Not only is there situational appropriateness in terms of formality, but many idioms also have grammatical constraints. For example, you can say that you *didn't sleep a wink* last night, but you wouldn't say that you *slept a wink*.

Reliance on the native language to aid interpretation of English idioms is not always adequate. Research found that the similarity between idioms in the native language and the second language directly affected second-language learner's idiom comprehension and production (Irujo, 1986b). Irujo (1986b) assessed recognition, comprehension, recall, and production of 45 English idioms in 12 Venezuelan advanced learners of English. Fifteen of the idioms were identical in form and meaning to their Spanish equivalents, 15 were similar to their Spanish equivalents, and 15 were different from the corresponding Spanish idioms. Results indicated that identical idioms were the easiest to comprehend and produce. Similar idioms were comprehended almost as well, yet interference from Spanish occurred. Different idioms were the most difficult to comprehend and produce, but did not exhibit as much interference. Irujo (1986b) defined interference as the incorrect use of a translation of a content word from a Spanish idiom. Such errors are the result of negative transfer. Transfer refers to the forms and patterns of the native language that are imposed on the second language (Gass, 1979). When aspects of the native language and the second language are identical, then positive transfer

occurs, as was the case with identical idioms.

Errors in idiom comprehension and production also occurred when target language strategies were employed. Target language strategies involve using knowledge of a second language, in this case English, to produce and comprehend expressions in the second language. However, since knowledge of the second language is generally incomplete, the target strategies often result in errors. Irujo (1986b) stated that errors such as the substitution of words with similar meanings (*kill two birds with one rock*); collocation of antonyms (as in *come low or high water*); or the confusion of one English idiom with another are all examples of target language strategies. She adds that other target language-related strategies included incomplete idioms (*cost an arm* for *cost an arm and a leg*); use of a figurative expression which is not a known idiom (*a nail in the backyard* for *a needle in a haystack*); or use of a routine formula which is not idiomatic (*what's wrong with her?* for *what's bugging her?*).

Because so many errors can occur with idiom usage, even the most advanced speakers of a second language tend to avoid producing idioms (Irujo, 1993). This can have detrimental effects on their communicative interactions with native speakers. Skill in using idioms is desirable because their use decreases the formality of conversational speech and makes it seem less stilted (Bromley, 1984) and more pragmatically acceptable. Comprehension of idioms is also important because of their frequency of occurrence in conversational speech, in the media, and in instructional material for older students (Bromley, 1984; Irujo, 1986a; Nippold, 1985). In fact there is such a high rate of idiomatic usage in English that it can be difficult to speak or write without using idioms (Seidl and McMordie, 1978). In a study of kindergarten to eighth grade teachers,

Lazar, Warr-Leeper, Nicholson, and Johnson (1989) found that at least one idiom occurred in 11.5% of all utterances made by the teachers. In addition, idioms were used with increasing frequency as grade increased.

If second-language users fail to grasp the meanings of idioms, this can infringe upon the listener's understanding of language in social, academic, and vocational settings (Nippold, 1988). Gibbs (1987) feels that the acquisition of conversational competence in a language requires an understanding of the use and meanings of idiomatic expressions. When non-native speakers hear idiomatic expressions they must recognize that the speaker does not want the utterance to be interpreted literally.

Considering the importance of idiom use and understanding in academic, social, and vocational settings, it is important that an appropriate measurement of idiom comprehension and production is available. However, few assessment tools include measurements of these abilities, and those that do may not be appropriate for second-language learners. This has been illustrated by the performance of college students on the *Fullerton Subtest of Idioms* in the Brasseur and Jimenez study (1989). Invariably the ESL speaker would meet with failure on this task. In order for an adequate idiom assessment tool for ESL speakers to be developed, several factors such as context, familiarity, and transparency must be considered.

Research has demonstrated that contextual information enhances idiom understanding. The Nippold and Martin (1989) study described previously examined idiom understanding under the two different presentation modes of isolation and context. Results demonstrated that idioms in context were somewhat easier to interpret than idioms in isolation across all age groups. A study by Ackerman (1982) found differing

results. Idiom understanding under varying linguistic contexts was examined in children ages 6, 8, and 10, and a control group of adults. Idioms were located at the end of a short story. The stories were biased toward different interpretations of the idioms, either idiomatic, literal, or neutral. Results found that young children rely on idiomatically biased contexts to a greater extent than older children while for older children and adults, "idiom interpretations are relatively fixed and not strongly dependent on contextual support" (p. 450). Nippold and Martin (1989) suggested that older subjects might rely more on context if the idioms were less common.

Recent research has also focused on several linguistic factors that affect idiom comprehension and production. It is these factors that can help explain why idioms differ widely in difficulty and how young people acquire figurative competence (Nippold & Rudzinski, 1993). Many hypotheses currently exist to explain how children develop figurative competence. The "language experience" view proposed by Ortony, Turner, and Larson-Shapiro (1985) argues that figurative competence is largely dependent upon the amount of meaningful exposure a child has to figurative expressions. More recently, research has supported the view that different processes may be employed to learn different idioms (Nippold & Taylor, 1995). While some idioms may be learned holistically (e.g. *beat around the bush*), others may be learned through a strategy where the nonliteral meaning of the idiom is determined from the literal meaning of the words comprising it (e.g. *keep a straight face*) (Gibbs, 1987, 1991; Nippold & Rudzinski, 1993). This is done through a metalinguistic analysis of the language domains of semantics, syntax, and pragmatics (Gombert, 1992). These hypotheses lend support to the belief that familiarity and metaphoric transparency contribute to children and adolescents' ability to



understand an idiom. The present study seeks to determine the role that both familiarity and metaphoric transparency play in second-language learners' comprehension of idioms.

Familiarity is a measure of how frequently an idiom occurs in the language (Nippold & Taylor, 1995). Although idioms are a common type of figurative language, some idioms are heard more frequently than others. For example, *beat around the bush*, a high-familiarity idiom, is commonly used in American English; but *take a powder*, a low familiarity idiom, is rarely used (Popiel & McRae, 1988).

Nippold & Taylor (1995) recently examined the effects of familiarity on idiom comprehension in adolescents from Grades 5, 8, and 11. The students were administered a forced-choice task containing 24 idioms. The idioms represented high-, moderate-, and low-familiarity levels. Familiarity levels had been established in a previous study by Nippold and Rudzinski (1993) where adolescents judged how frequently they had heard or read 100 different idiomatic expressions. Results from the Nippold and Taylor (1995) study found that performance on the task steadily improved with age, and that idioms high in familiarity were easier for the students to understand than those that were less familiar. The Nippold and Rudzinski (1993) study mentioned earlier also examined idiom familiarity using the same age groups and idioms, but required the students to provide a written explanation of each idiom. This investigation yielded similar results, with age and familiarity playing significant roles in idiom comprehension.

It is necessary to note, however, that a study by Levorato and Cacciari (1992) obtained results that were inconsistent with those obtained in the previous two studies. They examined the role of familiarity in the comprehension of idioms for children in Grades 1 and 3. Their results found that high-familiarity idioms were easier than low-

familiarity idioms for those in the first grade, but that there was no difference between idiom types for the third graders. From these results the authors concluded that familiarity plays only a minor role in children's understanding of idioms. Nippold and Taylor (1995) noted that the discrepancy between their study and Levorato and Cacciari's study could be due to the difference in ages between the subjects as the subjects in the Levorato and Cacciari study were younger. One interpretation could be that younger children have had less opportunity to become familiar with different idioms and as a result familiarity is not a relevant factor affecting their understanding. However, Nippold and Taylor feel that a more viable explanation for the discrepancy between the studies pertains to the difference in how familiarity levels were established. Levorato and Cacciari based their familiarity levels on the judgments of elementary school teachers, while the 1995 study used a more direct approach by having adolescents estimate their own degree of exposure to the idioms. Nippold and Taylor (1995) suggested that these familiarity ratings more closely matched the perceptions of the young people whose idiom understanding was tested.

Despite the discrepancies between the studies, results obtained by Nippold and Taylor (1995) and Nippold and Rudzinski (1993) support the "language experience" view suggested by Ortony, et al. (1985). The results indicated that familiarity, or frequency of exposure, played a role in idiom understanding, at least in young children. In the study by Irujo (1986b), there was some indirect evidence that familiarity also contributed to second-language learners' understanding of idioms. When the 45 idioms used in the study were ranked according to the number and percentage of total correct responses by the subjects, it was found that the best known idioms were also frequently used by native

English speakers.

Schraw, Trathen, Reynolds, and Lapan (1988) directly examined the influence of familiarity on non-native speakers' understanding of idioms. The study compared perceptions of familiarity and understanding among native and non-native speakers of English and examined whether familiar idioms were more likely to receive figurative interpretations than less familiar ones among the two groups. It should be noted that the non-native speakers were from a variety of nationalities. The first portion of the study asked the two groups to rate 50 idioms on the basis of familiarity and understanding. Results showed that figurative interpretations of idiomatic statements were rated as more familiar and understood better by native rather than non-native speakers. Schraw, et al. (1988) proposed that this occurred because native speakers have developed wordlike properties for idiomatic meanings in their lexical memory, a process called lexicalization, whereby the idiomatic expression is comprehended as one wordlike unit. Non-natives, however, are more likely to use a word-by-word strategy to interpret idiomatic meanings. The second part of the Schraw, et al. experiment asked a different group of native and non-native speakers to paraphrase an idiomatic statement. Results revealed that native speakers provided considerably more idiomatic paraphrases than non-native speakers. The information gained from this study led the researchers to conclude that lexicalization is a necessary condition for understanding idioms regardless of their familiarity. However, they suggested that familiarity does contribute to the greater likelihood one will have a figurative interpretation of an idiom.

Metaphoric transparency is another linguistic property which may account for the wide differences in idiom difficulty. Gibbs (1987) defines metaphoric transparency as

the extent to which the literal meanings of idioms relate to their figurative interpretations. In the past, it was assumed that there was little relationship between the literal and figurative meanings of idioms, and that knowledge of the literal meaning did not contribute to learning of its figurative meaning (Ortony, Schallert, Reynolds, & Antos, 1978). However, Gibbs (1987) later noted that an important distinction between metaphorically opaque and metaphorically transparent idioms did exist. Metaphorically opaque idioms demonstrate little relationship between their literal and figurative meanings, while metaphorically transparent idioms have figurative meanings that are extensions of their literal meanings. For example, *keep a straight face* is transparent because the nonliteral meaning, to show no emotion, is closely related to the literal meaning; however, *talk through one's hat* is opaque because the nonliteral meaning of this idiom, to not know the facts, has little to do with the literal meaning (Gibbs, 1987).

Gibbs (1987) examined the extent to which metaphoric transparency affected young children's interpretation of idioms. Children from kindergarten through fourth grade were asked to explain the meanings of 10 opaque and 10 transparent idioms, which were balanced for familiarity. After the explanation task, the children were asked to choose the best interpretation of the idiom from two possible choices (forced-choice task). Half the children in each of the age groups heard the idioms presented in supportive story contexts, while the other half heard them presented in isolation. Results showed that the transparent idioms were easier to explain than the opaque idioms, especially when they occurred in supportive contexts. However, on the forced-choice task, the differences between opaque and transparent idioms were less apparent.

Nippold and Rudzinski (1993) extended Gibbs' research on metaphoric

transparency to older children and adolescents. They employed an explanation only task, based on the theory that this type of task is more sensitive to subtle factors affecting idiom understanding than forced-choice tasks. A total of 150 subjects were tested, with 50 enrolled in each of grades 5, 8, and 11. The students were asked to explain 24 idiomatic expressions which differed in their transparency ratings. Each of the expressions was presented at the end of a four-sentence paragraph that contained supportive context. Results demonstrated that idioms higher in transparency were easier to explain than the more opaque expressions, findings which were consistent with Gibbs' findings on the explanation task.

A study by Nippold and Taylor (1995) also examined the role of transparency in idiom understanding using a forced-choice task. The same idioms and stories that had been used in the Nippold and Rudzinski (1993) study were used. In addition, the subjects were recruited from the same schools and grade levels that participated in the 1993 study. The subjects were 150 students, with 50 enrolled in each of grades 5, 8, and 11. While the students in the Nippold and Rudzinski study were asked to provide a written explanation of each idiom, the students in the 1995 study were presented with four possible answers and were asked to choose the best explanation of each idiom. Results found transparent idioms easier for students to understand than opaque idioms. These findings were in contrast to the findings of Gibbs (1987) who found less apparent differences between transparent and opaque idioms during a forced-choice task. Nippold and Taylor (1995) suggested that this discrepancy occurred because the forced-choice task used in the Gibbs' study was too easy. This makes it difficult for differences between idiom types to be observed. In the Nippold and Taylor study, a set of four

plausible answer choices was used rather than two, as Gibbs used. In addition, a literal explanation was not one of the four possible answers. Nippold and Taylor felt that a more challenging task would allow the subtle differences to be exposed.

Semantic analyzability is closely related to transparency. Traditionally, it has been assumed that idiomatic expressions are noncompositional (i.e., dead metaphors) and that their figurative meanings cannot be determined through an analysis of their individual word meanings (Chomsky, 1965, 1980; Fraser, 1970; Heringer, 1976; Katz, 1973). However, Gibbs (1991) stated that some idiomatic phrases are decomposable or analyzable when the meanings of their parts contribute independently to their overall figurative meanings (e.g. *lay down the law*). Gibbs' (1991) study demonstrated that young children can better understand idiomatic phrases which are semantically analyzable. Gibbs asked kindergartners and first, third, and fourth graders to explain the meaning of 20 idioms that varied in analyzability, yet were balanced for familiarity. Analyzability had been determined in an earlier study by Gibbs, Nayak, and Cutting (1989) by asking adult subjects to rate the degree to which the individual words in each expression made some unique contribution to that phrase's nonliteral interpretation. Following the explanation task, the children were asked to answer a forced-choice question regarding the same idiom. Half of the children in each age group heard the idioms presented in context, while the other half heard only the idioms. Data from the study suggested that children attempt to perform some compositional analysis when understanding idiomatic expressions. In addition, it was determined that the course of idiom learning is influenced by children's intuitions about how individual parts of idioms contribute to their figurative meanings. Gibbs (1991) implied that this finding might

extend to second-language learners.

As stated earlier, idiomatic expressions frequently occur in both conversational speech and in instructional material for older students. As a result, competence with idioms is important for understanding both spoken and written English. While several studies have examined linguistic factors, such as familiarity and transparency, affecting children's comprehension and interpretation of idioms, relatively few studies have examined these same factors and their effects on comprehension and interpretation in second-language learners. However, because idioms hold such a powerful pragmatic function, it becomes important to determine if the same factors affect second-language learners' understanding of idioms. Therefore, the purpose of the present study is to determine how both idiom familiarity and transparency influence idiom comprehension in non-native speakers of English. It is hypothesized that familiar and transparent idioms will be easier to understand than the less familiar and opaque idioms. A second purpose is to examine the extent to which context promotes idiom understanding. It is hypothesized that contextual support will aid idiom comprehension. Results might help provide guidelines for assessing second-language learners' idiom comprehension and criteria as well as an order or hierarchy for choosing idioms to teach within a therapy session.

## CHAPTER II

### METHODS

#### Study One

##### Subjects

Ten volunteers were recruited from students at Oklahoma State University (OSU) to judge 100 idioms (Appendix D) on the basis of familiarity and transparency. Volunteers were solicited through undergraduate courses offered in the Communication Sciences and Disorders Department at OSU. The volunteers consisted of nine females and one male and ranged in age from 19 to 37 years, with a mean of 23 years. The judgements of these volunteers were used to establish the levels of familiarity and transparency for idioms used in study two. Qualifications for inclusion in this group of subjects required passing a hearing screening at 20 decibels (dB) at 500, 1000, and 2000 hertz (Hz), and completion of a subject questionnaire (Appendix A). Volunteers were not allowed to participate in this study if they reported a history of any of the following: speech or language disorders, hearing loss, or medical conditions which contribute to speech, language, or hearing problems (i.e., traumatic brain injury, cerebrovascular accident, etc.). All subjects in this study were native speakers of American English.

Subjects similar in age and from the same population of OSU students as the subjects used in study two were chosen to judge the idioms due to findings by Nippold and Rudzinski (1993). Their research suggested that age influences familiarity and



transparency judgements. As a result, similar subjects were sought for both studies.

### Procedures

Subjects were assessed at the OSU Speech-Language-Hearing Clinic in small groups. Using a written format, each subject was asked to judge the familiarity and then the transparency of a set of 100 idioms (Appendix D). Procedures involving task administration were similar to those used by Nippold and Rudzinski (1993). Both judgement tasks were administered during a single session, and all subjects completed the same tasks.

Three different reference books on idioms were consulted when selecting and defining expressions for the study (Boatner, Gates, & Makkai, 1975; Ammer, 1997; Spears, 1996). Each expression consisted of a 2 to 6-word phrase which was clearly defined by at least one of the references. Prior to administration of these tasks, the chosen idioms were reviewed by three certified speech-language pathologists with experience in the assessment of language disorders and differences in adults including ESL speakers. Minor revisions were then made based on their suggestions.

In order to ensure that each subject received a similar set of instructions, directions for completion of the required tasks were read aloud by the examiner from a written text (Appendix B). In addition, directions for each task were made available in a written format as a reference for the subjects. Questions were allowed prior to the beginning of the task.

#### Familiarity judgment task

Each subject was asked to judge how frequently he or she had heard or read each of the idioms, using a 5-point scale (1 = *many* times; 2 = *several* times; 3 = *a few* times; 4 = *once* or *twice*; and 5 = *never*) developed by Nippold and Rudzinski (1993). The

examiner introduced the task by briefly describing what idioms are and how they may be either common or rare. Following this introduction, the 5-point scale was explained along with how the subjects should rate the idioms. Upon completion of the familiarity task, the subject's booklets were collected, and the transparency task was presented.

#### Transparency judgment task

The transparency judgment task asked the subjects to judge the same set of 100 idioms on how closely the literal and non-literal meanings were related, employing a 3-point scale (1 = *closely* related; 2 = *somewhat* related; and 3 = *not* related) utilized in the Nippold and Rudzinski (1993) study. Both the literal and nonliteral meanings of the idioms were provided for the subjects based on definitions contained in the reference books. Both definitions were provided, so transparency judgments could be made regardless of the subject's familiarity with the idioms.

To introduce the transparency judgment task, the examiner explained how idioms have both literal and non-literal meanings which may or may not be related. Following this introduction and an explanation of the 3-point scale, the subjects were asked to judge the closeness of the two meanings of each idiom. Upon completion of this task, the test booklets were collected and the testing session was completed.

### Study Two

#### Subjects

Thirty-two volunteer subjects were recruited from students at Oklahoma State University in Stillwater, Oklahoma. All subjects were currently enrolled at the university. Twenty of the subjects were native speakers of American English, while twelve were non-native speakers of American English (Chinese first language). In order to create even groups for analysis purposes, eight of the native speakers were randomly

omitted to create a group of twelve. The twelve native speakers consisted of six males and six females ranging in age from 18 to 22 years, with a mean of 20 years. These native speakers were solicited through undergraduate and graduate courses offered in the Communication Sciences and Disorders Department at OSU. The non-native speakers' group consisted of eight male subjects and four female subjects and ranged in age from 19 to 37 years, with a mean of 28 years (Appendix E). Non-native speakers were solicited through clients currently receiving services at the OSU Speech-Language-Hearing Clinic for accent modification or diagnostic evaluations and through the Chinese Student Organization at OSU.

Qualification for inclusion in both groups required passing a hearing screening at 20 decibels (dB) at 500, 1000, and 2000 hertz (Hz), and completion of a subject questionnaire (Appendix A). Volunteers were not allowed to participate in this study if they reported a history of any of the following: speech or language disorders, hearing loss, or medical conditions which contribute to speech, language, or hearing problems (traumatic brain injury, cerebrovascular accident, etc.). Non-native subjects who had received or were currently receiving speech or language therapy for dialect modification were allowed to participate only if they had not had any instruction regarding idioms. Data on the subjects were collected on the Oklahoma State University campus.

In addition to the qualifications listed above, the non-native speakers also had to meet the following qualification to be included in the study. The subjects had passed the Test of English as a Foreign Language (TOEFL) with a score of 500 or greater. This score was chosen due to its use by OSU as a standard for undergraduate admission to the university. Information concerning the subject's nationality, first language, and any second languages was collected through a subject questionnaire (Appendix A). In addition, the questionnaire yielded the following information: the average time spent in

the U.S. was two and a half years, and the average number of years English was studied was eleven years.

Chinese subjects were sought for participation in this study in order to ensure greater uniformity among the speakers. While the subjects spoke different dialects of Chinese and came from different regions, it was felt that this group demonstrated greater homogeneity than simply selecting speakers of various nationalities. In addition, Chinese speakers are familiar with idioms because of their use in the Chinese language. Finally, Chinese students constitute one of the largest groups of ESL speakers on the OSU campus; thus, they frequently seek services at the OSU Speech-Language-Hearing Clinic. As a result it is important to assess their understanding of English idioms and determine what factors might affect idiom comprehension so better services can be provided.

### Procedures

Results from the initial study allowed twenty-eight idioms to be selected for use in the second study (Appendix F). Fourteen idioms representing two familiarity levels - high and low - were selected for the idiom interpretation task. The high-familiarity idioms were those the initial subjects had rated as more familiar while the low-familiarity idioms were rated as less familiar. Overall, mean familiarity scores for the sets of high- and low-familiarity idioms were 1.3 and 3.0, respectively. In addition, these same idioms were selected to be balanced for transparency. Fourteen idioms represented transparent expressions, while the other fourteen represented opaque expressions. Mean transparency ratings for the transparent and opaque expressions were 1.4 and 2.5, respectively. It should be noted that these idioms were selected in order to create an equal number of

idioms in both the categories of familiarity and transparency; therefore, idioms which could not fulfill these criteria were not selected despite their better rating in one of the categories.

Before the idiom explanation and interpretation tasks were administered to the native or non-native subjects, the tasks were subjected to a screening procedure designed to identify any potentially confusing test items or directions. This was accomplished by administering the tasks to three graduate students (mean age = 23) within the OSU Department of Communication Sciences and Disorders who did not participate in Study Two. The screening procedure resulted in some minor revisions to the paragraphs to improve clarity and to the forced-choice answers to eliminate similar answers.

All of the subjects participating in the study completed the same tasks; however, half of the subjects received the idioms within a supportive context while the other half did not. Data from each subject were collected during small group or individual sessions. Each subject received the same set of instructions, which was presented both orally by the examiner and in a written format as a reference for the subjects (Appendix B). Completion of the tasks took approximately 30 minutes for the native speakers and 45 minutes for the non-native speakers.

Both the native and non-native groups were randomly divided by the examiner, so half the subjects from each group received the idiom expressions within a supportive context while the other half received the idioms in isolation. In the context condition, a short paragraph was presented where the idiom always occurred at the end of the final sentence (Appendix G). Immediately following the paragraph, there was a question which asked each subject to explain the idiom in his or her own words. Subjects

responded to the explanation task by writing down their explanations of each idiom on their answer sheets. The same procedures were followed for each of the idioms. Those receiving the idioms in isolation were also asked to provide a written explanation of each of the idioms. Once the task was completed, the subjects' booklets were collected, and the forced-choice task was presented.

Following completion of the explanation task, the subjects completed a forced-choice task containing the same idioms. Four possible explanations of the idiom were provided in written form for the subjects to choose from (Appendix H). Subjects responded by marking the appropriate answer on their answer sheets. Only one choice from the set accurately expressed the figurative meaning of the idiom. While the other choices were related to the story, highly implausible and literal meanings were excluded. Exclusion of literal choices was necessary because research has shown that even school-age children and adolescents are aware that such interpretations are inappropriate (Nippold and Rudzinski, 1993).

Prior to administration of the tasks, the examiner provided a brief description of idioms (Appendix B). In addition, two practice problems which were similar to items on the test were presented before each task was begun (Appendix G). The group receiving the idiom expressions in context had their practice problems presented in context while the isolation group received the expressions in isolation. Feedback on the practice problems was provided to the individual or group prior to the interpretation task. The practice problems were presented in order to ensure that the subjects fully understood the procedures and were prepared for the nonliteral aspect of the test. The feedback also provided examples of appropriate responses.

Once the practice items were completed, the examiner answered any questions and the task was begun. Students were given as much time as was necessary to complete the task. Upon completion of the explanation task, the test booklets were collected, and the forced-choice task was presented. Similar procedures were used to introduce this task including the inclusion of two practice items (Appendix H). Again, questions were answered prior to beginning the task, and students were allowed as much time as necessary to complete the task. Once the forced-choice task was completed, the test booklets were collected, and the session was completed.

To score the subjects' written explanations of the idioms, the three reference books (Boatner et al., 1975; Ammer, 1997; Spears, 1996) used to define the idioms in Study One also served as the primary references for accuracy. A raw score based on the total number of correct responses obtained (28 points possible) was determined for each subject as was a separate raw score for the number of correct responses for each of the four different types of idioms: familiar, unfamiliar, transparent, and opaque (14 points possible per type). Qualitative differences in the written explanation responses of the subjects were examined using the classification system developed by Nippold and Martin (1989) (Appendix C). Error responses were classified as being *related* to the true meaning, *unrelated* to the true meaning, a *literal* interpretation, a *restatement* of the idiom, or *no response*. Raw scores were also calculated for the forced-choice task based on the number of correct responses both overall and within the different types of idioms: familiar, unfamiliar, transparent, and opaque.

#### Reliability

Interjudge reliability in judging correct and incorrect idiom explanations was

determined. A second judge, a graduate student in Communication Sciences and Disorders, repeated the scoring procedures on a random sample of 25% of the subjects (6 subjects). The Pearson product moment correlation coefficient was calculated using the independent judgements of both examiners. The Pearson product moment correlation coefficient was .885 for accuracy of idiom explanation indicating a strong correlation between the two judges (Maxwell & Satake, 1997). In addition, the second judge was provided with training on the classification system used to identify the error responses, so the percent of agreement when classifying errors could be determined. This measure was calculated by dividing the total number of agreements between examiners by the total number of error items for all subjects combined. Percent of agreement was 81% when classifying error responses.

Intrajudge reliability was determined in a similar manner. The examiner re-evaluated a random sample of 25% of the subjects. Comparison of the examiner's initial and second scoring of idiom explanations was used to establish intrajudge reliability. The Pearson product moment correlation was .845 for accuracy of idiom explanations. Percent of agreement was 95% for classifying error responses.

### Statistical Analysis

Idiom interpretations were compared using separate multivariate analysis of variance procedures (MANOVA) for both familiarity and transparency. The speaker's group was an independent (grouping) variable with two levels, native and non-native speakers. The presentation mode was a second grouping variable with two levels, context and isolation. The number correct on the explanation and forced-choice tasks based on



familiarity and transparency served as the dependent variables having two levels, low and high and transparent and opaque, respectively.

The frequency with which each of the five error types occurred on the explanation task for each group was calculated. The two variables of interest were presentation mode and speaker group. It should be noted that all twenty native English speakers were included in the error analysis.

## CHAPTER III

### RESULTS

#### Study One

Results from a chi-square one sample test (Siegel, 1956) revealed a significant difference between the high-familiarity idiom group and the low-familiarity group ( $df=1$ ;  $p<.01$ ). This indicates that the idioms contained in the two groups adequately represent the two levels of familiarity. In addition, a chi-square test determined that a significant difference existed between the transparent and opaque idiom groups ( $df=1$ ;  $p<.001$ ). Again, this indicates that the chosen idioms are good representatives of the two different levels of transparency.

#### Study Two

The performances of the native English speakers (NES) and native Chinese speakers (NCS) were compared across the explanation and forced-choice tasks. The descriptive statistics in Table 1 summarize the differences between the two groups of speakers and presentation modes (context and isolation) for each of the four idiom types (high familiarity, low familiarity, transparent, and opaque) on the explanation task when comparing correct responses.

Table 1

Descriptive Statistics for Idiom Familiarity and Transparency by Speaker Group and Presentation Modefor the Explanation Task

Groups		<u>Familiarity</u>		<u>Transparency</u>	
		High-Familiarity	Low-Familiarity	Transparent	Opaque
<u>NES</u> Context (N=6)	Mean	<b>9.17</b>	<b>8.83</b>	<b>8.67</b>	<b>9.33</b>
	SD	<b>2.99</b>	<b>1.83</b>	<b>2.66</b>	<b>1.37</b>
	Range	<b>5-12</b>	<b>6-11</b>	<b>5-12</b>	<b>7-11</b>
<u>NES</u> Isolation (N=6)	Mean	<b>8.83</b>	<b>6.67</b>	<b>8.83</b>	<b>6.67</b>
	SD	<b>2.14</b>	<b>2.25</b>	<b>2.93</b>	<b>1.51</b>
	Range	<b>5-11</b>	<b>3-9</b>	<b>4-12</b>	<b>4-8</b>
<u>NCS</u> Context (N=6)	Mean	<b>5.17</b>	<b>5.83</b>	<b>5.67</b>	<b>5.33</b>
	SD	<b>2.14</b>	<b>1.94</b>	<b>2.66</b>	<b>1.51</b>
	Range	<b>2-7</b>	<b>3-8</b>	<b>2-9</b>	<b>3-7</b>
<u>NCS</u> Isolation (N=6)	Mean	<b>2.67</b>	<b>2.33</b>	<b>3.00</b>	<b>2.00</b>
	SD	<b>2.25</b>	<b>1.03</b>	<b>2.45</b>	<b>0.63</b>
	Range	<b>1-6</b>	<b>1-4</b>	<b>1-6</b>	<b>1-3</b>

The descriptive statistics in Table 2 summarize the differences in correct responses between the two groups of speakers and presentation modes (context and isolation) for each of the four idiom types (high familiarity, low familiarity, transparent and opaque) in the forced-choice task. Results summarized in both Table 1 and Table 2 suggest that the NES performed better overall than the NCS. Comparisons between the two groups also reveal that the forced-choice task yielded higher scores for both groups in all conditions.

When looking at the results of the explanation task in Table 1, it also becomes apparent that there is a greater difference between scores for idioms in isolation than in context for the NES when comparing the differing levels of familiarity and transparency. However, the same is not true for the NCS. Presentation mode is not a factor when comparing the different levels of familiarity and transparency. Results from Table 2 indicate similar performance by the NES on the forced-choice task and the explanation task. Again, scores comparing familiarity and transparency levels differed more when the idioms were in isolation than when they were in context. The same was not true for the NCS. While the scores appeared to be affected by presentation mode when comparing familiarity levels, they were not affected when comparing transparency levels.

Table 3 represents the results of the two-way multivariate analysis of variance (MANOVA) (Maxwell & Satake, 1997) comparing correct responses for high- and low-familiarity idioms on the explanation and forced-choice tasks across speaker group and presentation mode. There was a statistically significant difference in correct responses between high- and low-familiarity idioms in both tasks (explanation and forced-choice) and speaker group (High-familiarity explanation:  $F=26.770$ ;  $df=1$ ;  $p<.05$ ;

Table 2

Descriptive Statistics for Idiom Familiarity and Transparency by Speaker Group and Presentation Modefor the Forced-Choice Task

Groups		<u>Familiarity</u>		<u>Transparency</u>	
		High-Familiarity	Low-Familiarity	Transparent	Opaque
<u>NES</u> Context (N=6)	Mean	12.33	11.33	12.33	11.33
	SD	1.97	1.03	1.86	1.37
	Range	10-14	10-13	10-14	10-13
<u>NES</u> Isolation (N=6)	Mean	13.33	10.00	12.83	10.50
	SD	0.52	1.41	0.75	1.22
	Range	13-14	8-12	12-14	9-12
<u>NCS</u> Context (N=6)	Mean	9.33	9.50	9.00	9.83
	SD	2.25	1.38	2.53	1.17
	Range	7-13	8-11	6-13	8-11
<u>NCS</u> Isolation (N=6)	Mean	8.00	6.67	7.50	7.17
	SD	2.53	2.07	2.51	2.32
	Range	5-12	4-9	5-11	5-11

Table 3

Multivariate Analysis of Variance (MANOVA) for High- and Low-familiarity Idioms onExplanation and Forced-Choice Tasks by Speaker Group and Presentation Mode

Source	Sum of Squares	df	Mean Square	F	Probability
<i>High-Familiarity Idioms in Explanation Task</i>					
1. Speaker Group	155.042	1	155.042	26.770	<0.001
2. Presentation Mode	12.042	1	12.042	2.079	0.165
3. Interaction*	7.042	1	7.042	1.216	0.283
Error	115.833	20	5.792		
<i>High-Familiarity Idioms in Forced-Choice Task</i>					
1. Speaker Group	104.167	1	104.167	26.709	<0.001
2. Presentation Mode	0.167	1	0.167	0.043	0.838
3. Interaction	8.167	1	8.167	2.094	0.163
Error	78.000	20	3.900		
<i>Low-Familiarity Idioms in Explanation Task</i>					
1. Speaker Group	80.667	1	80.667	24.322	<0.001
2. Presentation Mode	48.167	1	48.167	14.523	0.001
3. Interaction	2.667	1	2.667	0.804	0.381
Error	66.333	20	3.317		
<i>Low-Familiarity Idioms in Forced-Choice Task</i>					
1. Speaker Group	40.042	1	40.042	17.347	<0.001
2. Presentation Mode	26.042	1	26.042	11.282	0.003
3. Interaction	3.375	1	3.375	1.462	0.241
Error	46.167	20	2.308		

Note. \*Interaction = Speaker Group x Presentation Mode

High-familiarity forced-choice:  $F=26.709$ ;  $df=1$ ;  $p<.05$ ; Low-familiarity explanation:  $F=24.322$ ;  $df=1$ ;  $p<.05$ ; Low-familiarity forced-choice:  $F=17.347$ ;  $df=1$ ;  $p<.05$ ).

There were no statistically significant differences in correct responses for presentation mode and high-familiarity idioms in either task (High-familiarity explanation:  $F=2.079$ ;  $df=1$ ;  $p>.05$ ; High-familiarity forced-choice:  $F=0.043$ ;  $df=1$ ;  $p>.05$ ). However, statistically significant results were found between the low-familiarity idioms in both tasks and the presentation mode (Low-familiarity explanation:  $F=14.523$ ;  $df=1$ ;  $p<.05$ ; Low-familiarity forced-choice:  $F=11.282$ ;  $df=1$ ;  $p<.05$ ).

Table 4 represents the results of the two-way multivariate analysis of variance (MANOVA) comparing transparent and opaque idioms on the explanation and forced-choice tasks across speaker group and presentation mode. Statistical significance was reached between the transparent and opaque idioms in both tasks (explanation and forced-choice) and the speaker group (Transparent explanation:  $F=16.312$ ;  $df=1$ ;  $p<.05$ ; Transparent forced-choice:  $F=26.932$ ;  $df=1$ ;  $p<.05$ ; Opaque explanation:  $F=66.275$ ;  $df=1$ ;  $p<.05$ ; Opaque forced-choice:  $F=13.878$ ;  $df=1$ ;  $p<.05$ ).

No statistical significance was found between the transparent idioms in either task and the presentation mode (Transparent explanation:  $F=1.307$ ;  $df=1$ ;  $p>.05$ ; Transparent forced-choice:  $F=0.359$ ;  $df=1$ ;  $p>.05$ ). Statistically significant results were obtained between opaque idioms in both tasks and the presentation mode (Opaque explanation:  $F=31.765$ ;  $df=1$ ;  $p<.05$ ; Opaque forced-choice:  $F=7.277$ ;  $df=1$ ;  $p<.05$ ).

When examining the effect of the interaction between speaker group and presentation mode (Tables 3 and 4), no statistical significance was found for any of the idiom types on either the explanation or forced-choice task. This indicates that the

Table 4

Multivariate Analysis of Variance (MANOVA) for Transparent and Opaque Idioms onExplanation and Forced-Choice Tasks by Speaker Group and Presentation Mode

Source	Sum of Squares	df	Mean Square	F	Probability
<i>Transparent Idioms in Explanation Task</i>					
1. Speaker Group	117.042	1	117.042	16.312	0.001
2. Presentation Mode	9.375	1	9.375	1.307	0.267
3. Interaction*	12.042	1	12.042	1.678	0.210
Error	143.500	20	7.175		
<i>Transparent Idioms in Forced-Choice Task</i>					
1. Speaker Group	112.667	1	112.667	26.932	<0.001
2. Presentation Mode	1.500	1	1.500	0.359	0.556
3. Interaction	6.000	1	6.000	1.434	0.245
Error	83.667	20	4.183		
<i>Opaque Idioms in Explanation Task</i>					
1. Speaker Group	112.667	1	112.667	66.275	<0.001
2. Presentation Mode	54.000	1	54.000	31.765	<0.001
3. Interaction	0.667	1	0.667	0.392	0.538
Error	66.333	20	3.317		
<i>Opaque Idioms in Forced-Choice Task</i>					
1. Speaker Group	35.042	1	35.042	13.878	0.001
2. Presentation Mode	18.375	1	18.375	7.277	0.014
3. Interaction	5.042	1	5.042	1.997	0.173
Error	46.167	20	2.308		

Note. \*Interaction = Speaker Group x Presentation Mode



combined effect of speaker group and presentation mode was not a factor.

Significant differences between the NCS and NES can be seen in a number of areas. While the results comparing context and isolation are varied, it is felt that the presentation mode is generally more likely to make a difference when the task becomes more difficult. This would be the case when the idioms are less familiar or more opaque.

#### Additional Measures

The classification of error responses on the explanation task by type is shown in Table 5 along with the percentage of occurrence for the two speaker groups and two presentation modes. The most common type of errors made by the NES in context were *related*; however, in isolation the most common error type was *unrelated*. Among the NCS, the most common error type in both context and isolation was *unrelated*. Other types of errors (*literal*, *restatement*, and *no response*) occurred 7% of the time or less with one notable exception – the NCS gave *no response* 42% of the time when not provided with context. The type of errors appeared to be related to subjects' general competency on the task as *related* errors were more common with better task performance.

Table 5

Occurrence and Percentage of Error Types for Speaker Group and Presentation Mode

	<u>Native English Speakers</u>		<u>Native Chinese Speakers</u>		<u>Combined</u>	
	Context	Isolation	Context	Isolation	Context	Isolation
Literal	0 (0%)	0 (0%)	0 (0%)	7 (5%)	0 (0%)	7 (3%)
Unrelated	33 (37%)	63 (56%)	69 (68%)	72 (52%)	102 (53%)	135 (54%)
Related	56 (62%)	49 (44%)	26 (25%)	14 (10%)	82 (43%)	63 (25%)
Restatement	1 (1%)	0 (0%)	2 (2%)	3 (2%)	3 (1%)	3 (1%)
No Response	0 (0%)	0 (0%)	5 (5%)	42 (30%)	5 (3%)	42 (17%)
Total Errors	90	112	102	138	192	250

## CHAPTER IV

### DISCUSSION

One purpose of the present study was to examine the influence of both idiom familiarity and transparency on idiom comprehension in both native English speakers (NES) and native Chinese speakers (NCS). Two tasks, explanation and forced-choice, were employed to make this determination. In addition, the effect of context on idiom understanding was also of interest.

When comparing the NES and NCS on the explanation and forced-choice tasks, there was a statistically significant difference in correct responses between the two speaker groups and the high- and low-familiarity idioms. An examination of the correct responses for the transparent and opaque idioms found that statistical significance was reached in both tasks for the speaker groups. These results indicate that the two speaker groups differed in their ability to interpret and explain both high- and low-familiarity idioms and transparent and opaque idioms.

When comparing those speakers who received the idioms within a supportive context and those who received the idioms in isolation, there was a statistically significant difference for low-familiarity idioms in both tasks and the presentation mode. In addition, a statistically significant difference was demonstrated for the opaque idioms in both tasks and the presentations mode. However, no statistical significance was found

between the high-familiarity idioms in either task and the presentation mode, nor was statistical significance found between the transparent idioms in either task and the presentation mode. These results demonstrate that context plays a role only when the task becomes more difficult because the idioms are unfamiliar or opaque.

When considering the interaction between speaker group and presentation mode, statistical significance was not reached for any of the idiom types on either the explanation or forced-choice task. This indicates that the combined effect of speaker group and presentation mode was not a key factor in idiom interpretation and explanation. Therefore, it is concluded that the NES speakers did better than the NCS overall despite whether or not the idioms were in isolation or context. Results from the descriptive statistics support this conclusion.

When looking within speaker groups, a greater difference between idiom scores in isolation than in context is present for the NES on both the explanation and forced-choice tasks. However, this difference is not present for the NCS in the explanation task as the scores were similar when comparing familiarity and transparency levels in either context or isolation. In the forced-choice task, however, presentation mode did affect comparisons made between familiarity levels for the NCS, but no effect was present when comparing the transparency levels. These results indicate that familiarity and transparency have a greater influence on idiom interpretation and explanation among the NES when presented in isolation. The more familiar and transparent the idiom, the easier it is to interpret and explain when presented in isolation. The same theory is true for the NCS but only for familiarity in the forced-choice task. Therefore, indicating that idioms become easier for the NCS to interpret when they are more familiar.

These results for the NES are consistent with previous studies which found that familiarity and transparency are important factors related to idiom interpretation and explanation in older children and adolescents (Nippold & Rudzinski, 1993; Nippold & Taylor, 1995). However, in the present study this was found to be true only when the idioms were in isolation. A possible explanation for this occurrence could be related to how the idioms were chosen. As stated previously, the idioms were chosen so that an equal number of high- and low-familiarity idioms were included along with an equal number of transparent and opaque idioms. As a result, some of the idioms were on the borderline of the differing levels of familiarity and transparency. With the addition of the supporting context, the idiomatic meaning became easier to interpret despite the unfamiliarity or opaqueness of the idiom itself. Had the idioms differed to a greater extent, familiarity and transparency may have played a greater role in both interpreting and explaining idioms within context.

In addition, it is important to note that the present study as well as studies by Nippold & Taylor (1995) and Brasseur & Jimenez (1989) found that even the NES did not achieve perfect scores on explanation or forced-choice tests which measure idiom comprehension. Therefore, the level of performance which represents "competency" becomes an issue. On the Fullerton Subtest of Idioms, competency was defined as a score from 13-20 (out of 20) for individuals 18 to 21 years of age. Consequently, it is important to note that the lack of a perfect score does not necessarily mean a lack of mastery but may indicate normal variations within individuals.

The NCS may have differing results from the studies discussed above primarily because the studies did not include non-native speakers of English. Another probable

explanation would be that NCS have had less opportunity to become familiar with different idioms. Consequently familiarity is a less relevant factor affecting their ability to explain idioms. This contrasts with results of the forced-choice task where familiarity did appear to contribute to idiom understanding. Perhaps the solution suggested by Nippold and Taylor (1993) can best explain why this occurs. When subjects can select an appropriate explanation of an idiom on a forced-choice task, they are able to express more precisely their knowledge of idioms than when they must generate their own explanations and risk being hampered by performance limitations. As a result they were better able to accurately answer the more familiar idioms.

Another possible explanation is offered by Schraw, et al. (1988). Their findings suggest that lexicalization (the development of wordlike properties in lexical memory) of an idiom determines whether an individual recognizes a phrase as idiomatic in lexical memory and can retrieve its idiomatic meaning. Familiarity only determines how likely we are to prefer its conventional idiomatic meaning to a literal interpretation. This indicates that lexicalization must first occur before a thorough understanding of idiomatic meanings is possible. Schraw, et al. (1988) found that non-native speakers had little access to lexicalized representations of idioms in memory. As a result, familiarity plays little or no role in non-natives' understanding of idioms.

A particularly interesting finding in this study is the fact that transparency did not play a role in idiom interpretation or explanation among the NCS. These results suggest that the NCS did not attempt to perform a compositional analysis, by analyzing the meanings of the parts of the idioms, to determine the overall meaning. Perhaps a compositional analysis did not occur because of the speakers' knowledge that idioms

have different meanings from their literal meanings. As a result, the NCS may have believed that consideration of the literal meaning would not help them figure out the idiomatic meaning. However, this is in contrast to Schraw, et al.(1988) who found that non-native speakers attempted to understand obvious uses of idioms as if they were novel metaphors by most likely using a word-by-word lexical analysis of the phrase.

The results of the NCS are similar to results found by Irujo (1993). On a task where Spanish speakers were asked to use an English idiom, it was found that frequency of use did not appear to influence a speaker's production of the idiom or the ease of learning the idiom. In addition, transparency played only a minor role in making an idiom easier to learn. Rather she found that idioms which have identical equivalents in the native language were easier to learn. The present study did not examine whether the idioms used were related to idioms within the Chinese language. Future research could examine if the findings of Irujo (1993) extend to other languages, including the Chinese language.

As stated previously, context was another factor considered in idiom understanding. Statistical significance for context was found only between the opaque and low-familiarity idioms, conditions which made the task more difficult. However, when looking at the mean scores, it can be seen that overall scores were higher for subjects receiving the idioms in context than subjects presented with idioms in isolation. This would indicate that context plays at least a minor role in interpreting and explaining idioms. These results are consistent with other studies that found that children and adolescents can provide more appropriate explanations of idioms when the expressions are presented in linguistic contexts that support their figurative interpretations than when

they are presented in isolation (Ackerman, 1982; Gibbs, 1987; Nippold & Martin, 1989).

As expected significant differences were noted overall between the NES and NCS. However, as stated earlier the NES had not completely mastered the explanation or forced-choice tasks. As a result, it is important to consider the implications of this when testing non-native speaker's understanding of idioms and to cautiously interpret the results of idiom assessment.

Examination of the types of errors made on the explanation task, revealed that *unrelated* and *related* errors were the most common among both groups. Specifically, the NES had more *related* errors for idioms in context while in isolation the most common errors were *unrelated*. The most common error among the NCS was *unrelated* for both idioms in context and in isolation. *No response*, *literal*, and *restatement* errors occurred much less frequently with one exception – 42% of the errors made by the NCS when the idioms were in isolation were *no response* errors. These results are indicative of the fact that the Chinese subjects not only provided *unrelated* explanations of idioms, but they were also unable or unwilling to venture a guess when no context is provided. This is despite the fact that all subjects were encouraged to provide a response even if they had to guess. This could be related to internal variables such as the individual's risk taking style. Such a variable would cause the individual to provide no answer rather than take a guess and provide the wrong answer. Cultural differences are another variable that should be considered. Many Asian students consider volunteering answers, commenting, or seeking clarification as bold and immodest practices (Clark, 1993). In addition, in most Asian countries the learning style is passive in which students learn by listening, reading, observing, and imitating, rather than by discovery learning or engaging in critical



thinking (Cheng, 1991). The requirements of the explanation task contrasted with normal cultural expectations. As a result, the NCS may have been reluctant to provide an unknown answer as it would be too contrary to usual behavior for them. The fact that NES were able to provide more *related* responses and no *no responses* represents their greater understanding of idiomatic phrases and their associated meanings.

Besides internal variables such as those mentioned above, vocabulary ability of the subjects should also be considered. The present study did not take this into consideration when creating the supportive paragraphs. While the paragraphs were screened for understanding, some words or expressions may have been difficult for the non-native speakers to comprehend. However, the subjects were allowed to ask questions as necessary which controlled somewhat for any misunderstandings that might have occurred.

A larger number of subjects in each speaker group might have increased the probability of better representing the groups. A sample size of 12 subjects per group in the present study is considered small. As a result, the subjects in this study may not have accurately represented the upper and lower ranges of the populations studied.

The present study added important information to our knowledge about idiom understanding in non-native speakers of English. The data contribute to the development of guidelines which can be used by clinicians during evaluations of persons who speak English as a second language to measure idiom understanding. The mean scores can be used as a rough guide to determine if a subject's performance on such a test of idiom understanding is typical or atypical. However, this purpose could better be served by expanding the group of NCS and also looking at other nationalities. In addition, the data

provide valuable information regarding factors affecting idiom interpretation and explanation which can be used in structuring assessment measures and determining which idioms to teach in therapy.

The results of the present study indicate that a supportive context is perhaps the most useful for increasing idiom understanding. As a result, idioms chosen for therapy or testing should be presented within a supportive context in order to increase understanding. When choosing which idioms to test or teach, perhaps the best guideline is to choose idioms that the non-native speakers are most likely to be familiar with and/or have expressed an interest in learning. Typically, this will be more familiar idioms simply because of the greater exposure to such idioms. In addition, speakers could be taught about semantic transparency and shown how certain idioms' literal and non-literal meanings are related.

Results from this study suggest that non-native speakers of English may need a certain level of language competency in English before it is productive to test or teach idiom comprehension. Idiom comprehension and production may not be the first language priority when teaching English to non-native speakers. Rather vocabulary and syntax should be well established prior to the teaching of idioms. Future research should compare performance on idiom comprehension according to vocabulary scores or some measure of overall language competence. In the present study, correlations between the TOEFL scores (Mean = 581, Range 510-623) and performance on both the explanation and forced-choice tasks were weak,  $r = -0.23$  and  $r = -0.12$ , respectively (Maxwell & Satake, 1997). Although the relationships are weak, the negative direction also indicates the NCS with higher TOEFL scores scored lower on the idiom test. However, a larger

sample size could provide differing results.

Future research should continue to study familiarity and transparency and their effects on second-language learners' understanding of idioms. As stated earlier, a larger sample size might yield more subtle differences between the various factors studied and would also provide a larger data set from which to make comparisons. In addition, researching just the effects of familiarity or transparency might prove beneficial as idioms better representing the different levels of each could be chosen. Research should also continue to search for factors that influence idiom understanding in second language learners. Such information would provide valuable insight into the testing and teaching of idioms for this population. It is only through continued research that speech-language pathologists will be able to better understand and meet the needs of culturally diverse populations.

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APPENDIXES

APPENDIX A

SUBJECT QUESTIONNAIRE AND HEARING SCREENING

Subject #: \_\_\_\_\_

Date: \_\_\_\_\_

### NATIVE AND NON-NATIVE SUBJECT QUESTIONNAIRE

NAME: \_\_\_\_\_ AGE: \_\_\_\_\_ DATE OF BIRTH: \_\_\_\_\_

GENDER: \_\_\_\_\_

Please answer the following questions in as much detail as possible:

#### EDUCATIONAL HISTORY:

1. Are you currently enrolled at Oklahoma State University? \_\_\_\_\_yes \_\_\_\_\_no

If "yes": How many years of college have you completed? \_\_\_\_\_

What is your classification (e.g. Soph., Masters, etc.)? \_\_\_\_\_

What is your major field of study? \_\_\_\_\_

2. Do you speak any languages other than English? \_\_\_\_\_yes \_\_\_\_\_no

If "yes": What languages do you speak? \_\_\_\_\_

What is your primary language? \_\_\_\_\_

3. Have you ever been told that you have a learning disability?

\_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

4. Have you ever been placed in a special class for learning? \_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

5. Have you ever had speech or language therapy? \_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

6. Have you studied idioms? \_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

#### MEDICAL HISTORY:

1. Are you currently or have you ever been treated by a professional for any of the following:

a. hearing loss \_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

b. neurological disorder \_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

c. head injury \_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

2. Are you currently under a doctor's care or taking prescription medications?

\_\_\_\_\_yes \_\_\_\_\_no

If "yes", please explain: \_\_\_\_\_

Subject #: \_\_\_\_\_

Date: \_\_\_\_\_

## NON-NATIVE SUBJECT QUESTIONNAIRE

NAME: \_\_\_\_\_ AGE: \_\_\_\_\_ DATE OF BIRTH: \_\_\_\_\_

NATIONALITY: \_\_\_\_\_ GENDER: \_\_\_\_\_

Please answer the following questions in as much detail as possible:

---

1. How long have you been in the United States? \_\_\_\_\_ years \_\_\_\_\_ months

2. What country were you born in?

---

3. What other countries have you lived in?

---

4. Have you taken the Test of English as a Foreign Language (TOEFL)?

\_\_\_\_\_yes \_\_\_\_\_no

If "yes", please provide your score: \_\_\_\_\_

5. Have you taken the Test of Spoken English? \_\_\_\_\_yes \_\_\_\_\_no

If "yes", please provide your score: \_\_\_\_\_

6. How many years did you study English? \_\_\_\_\_

Were you taught by a native English speaker? \_\_\_\_\_

Subject #: \_\_\_\_\_

Date: \_\_\_\_\_

HEARING SCREENING

	R	L
500 Hz	_____	_____
1000 Hz	_____	_____
2000 Hz	_____	_____

APPENDIX B

INSTRUCTIONS TO BE PROVIDED TO THE SUBJECTS



The examiner will read the following instructions to the subjects verbatim:

## STUDY ONE

### Familiarity Task

Idioms are expressions that have special meanings. For example, *hold your tongue* is an idiom that means to be quiet. We could say, "Mary was about to tell Jim a secret when Sally said *hold your tongue!*" This means that Sally wanted Mary to be quiet.

Some idioms are common while others are rare. Common idioms are ones that we often hear people say or that we often read in books, magazines, or newspapers. For example, *pull someone's leg* is a common idiom that means to fool someone. Rare idioms are ones that we seldom, if ever, hear or read. For example, *take a powder* is a rare idiom that means to run away quickly. Some idioms are neither common nor rare; these are expressions that we *sometimes* hear or read but not too often. For example, *get someone's goat*, which means to anger or annoy someone, is neither common nor rare.

A list of idioms is given below; I would like to find out how common or rare *you* think these idioms are. There are no right or wrong answers--I just want to know what *you* think about the idioms. Your job is to tell me how often you have heard or read each idiom. Please rate each idiom according to the scale explained below. Circle the appropriate number following each idiom:

- 1 = I have heard or read it *many* (15+) times before.
- 2 = I have hear or read it *several* (7-15) times before.
- 3 = I have heard or read it a *few* (3-6) times before.
- 4 = I have heard or read it *once* (1-2) before.
- 5 = I have *never* (0) heard or read it before.

Please answer all of the questions. Try to work *quickly* but *carefully*.

### Transparency Task

An idiom can have a literal meaning and a nonliteral meaning. For example, the *literal* meaning of *hold your tongue* is that you actually put your fingers on your tongue so it can't move. This literal meaning is similar to the nonliteral meaning, to be quiet, because if you hold your tongue with your fingers, you can't talk! With this idiom, the literal and the nonliteral meanings are *closely* related.

Sometimes the literal and nonliteral meanings of an idiom are *not* related. For example, the literal meaning of *spill the beans* is that someone knocked over a bowl of beans. The *nonliteral* meaning of this idiom is that someone gave away a secret. Knocking some beans on the floor means something very different from giving away a secret.

Sometimes the literal and nonliteral meanings of an idiom are *somewhat* related--in other words, they *are* related, but not closely related. For example, consider the idiom *keep one's head above water*. The *literal* meaning of this idiom is to not go completely under water in a swimming pool or lake. The *nonliteral* meaning is to not fail at something. A boy in a difficult chemistry class might say that he can barely *keep his head above water*. This means that it is hard for him to make passing grades. The literal and the nonliteral meanings of this idiom are *somewhat* related, but not closely related.

A list of idioms is given below. The literal meaning and the nonliteral meaning of each idiom are shown. I would like to find out how close *you* think the two meanings are. Again, there are no right or wrong answers. I just want to know what *you* think about the idioms. Please read and rate each of the idioms according to the scale explained below. Circle the appropriate number following each idiom:

- 1 = Literal and nonliteral meanings are *closely* related.
- 2 = Literal and nonliteral meanings are *somewhat* related.
- 3 = Literal and nonliteral meanings are *not* related.

Please answer all of the questions. Try to work *quickly* but *carefully*.

## STUDY TWO

### Explanation Task

Idioms are expressions which have special meanings. For example, *hold your tongue*, is an idiom that means to be quiet. We could say, "Mary was about to tell Jim a secret when Sally said *hold your tongue!*" This means that Sally wanted Mary to be quiet.

### *Context*

Your booklet contains 28 short paragraphs. Each paragraph contains an idiom and asks a question about that expression. I would like you to write down your answer for each question. Please explain what you think the idiom means. Write down a good explanation of the idiom. Let's try some for practice.

### *Isolation*

Your booklet contains 28 idioms. Following each idiom, there is a question regarding the expression. I would like you to write down your answer for each question. Please explain what you think the idiom means. Write down a good explanation of the idiom. Let's try some for practice.

[The practice task will be completed. Once all the subjects understand the task, the study procedures can be presented.]

Now I would like you to answer the rest of the questions by yourself. Please do your best work. Don't skip any questions. If you aren't sure of an answer just take a guess. Just write down what you *think* the idiom means. After you finish, go back and check your answers carefully. Do you have any questions?

#### Forced-choice Task

##### *Context*

The same paragraphs from the previous task are included in your booklet. I would like you to circle the best explanation of each idiom from a choice of four possible answers. Read each answer carefully and choose the one answer that *best* explains the idiom. Let's try some for practice.

##### *Isolation*

The same idioms from the previous task are included in your booklet. I would like you to circle the best explanation of each idiom from a choice of four possible answers. Read each answer carefully and choose the one answer that *best* explains the idiom. Let's try some for practice.

[The practice task will be completed. Once all the subjects understand the task, the study procedures can be presented.]

Now I would like you to answer the rest of the questions by yourself. Please do your best work. Don't skip any questions. If you aren't sure of an answer just take a guess. Just circle the answer which best explains what you *think* the idiom means. After you finish, go back and check your answers carefully. Do you have any questions?

Excerpted from Nippold, M.A., & Rudzinski, M. (1993). Familiarity and transparency in idiom explanation: A developmental study of children and adolescents. Journal of Speech and Hearing Research, 36, 728-737.

APPENDIX C

CLASSIFICATION SYSTEM FOR IDIOM INTERPRETATION

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*Example of idiom: throw light on something*

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Correct:	The response captures the general figurative meaning of the expression, for example, "You help others understand something more clearly."
Incorrect:	
Literal	The response reflects the concrete meaning of a word in the expression, for example, "Turn the light on."
Unrelated	The response has nothing to do with the accurate figurative meaning of the expression, for example, "Leave something alone."
Related	The response is vague or reflects only a partial understanding of the figurative meaning of the expression, for example, "To help in some way."
Restatement	Part or all of the expression was repeated or changed slightly without adding any new information, for example, "You throw more light on it."
No Response	The answer space was left blank or the student wrote that she/he did not understand the expression, for example, "I don't know."

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Note. From "Idiom Interpretation in Isolation Versus Context: A Developmental Study With Adolescents," By M.A. Nippold and S. Martin, 1989, Journal of Speech and Hearing Research, 32, p. 61. Copyright 1989 by the American Speech-Language-Hearing Association.

APPENDIX D

LIST OF 100 IDIOMS

Clear the air	Take someone to the cleaners
Behind someone's back	Read between the lines
Bend over backwards	Fit like a glove
On the ball	Fly off the handle
Foot the bill	Down in the dumps
Out of the blue	Out on a limb
By the book	Set the record straight
Look on the bright side	On pins and needles
A piece of cake	Lay it on the line
Get cold feet	Take the plunge
In the dark	Rub someone's nose in it
The coast is clear	Step out of line
Easier said than done	Jump the gun
Run in the family	Bite the dust
Cross one's fingers	Make one's blood boil
Take the floor	Hit the books
A grey area	Hit it off
Catch someone off guard	Throw in the towel
Hand something down	Think twice
Have a hand in something	Look down on
A show of hands	Have no business
Get the hang of something	Fall behind
Above someone's head	Fall for someone/something
Go to someone's head	Drag your feet
Off the top of one's head	Hand in hand
My heart goes out to someone	Twist my arm
Break the ice	Under my nose
Out on a limb	Keep a straight face
Runs in the family	Put words in one's mouth
See eye to eye	By word of mouth
Chip on one's shoulder	Hit the hay
Skating on thin ice	Pull someone's leg
Blow off some steam	Play it by ear
Go around in circles	Jump the gun
Beat around the bush	Get the ball rolling
Keep up one's end	On the line
Go against the grain	Bite your tongue
Breathe down your neck	Tie the knot
Turn back the clock	Second thoughts
Lay down the law	Scratch the surface
Put down one's foot	Pain in the neck
Wear out one's welcome	Back off
Make up your mind	Crack a book
Cut down to size	Come in handy
Paint the town red	Call it a day
Wet one's whistle	Call the shots

Paper over the cracks  
Hot under the collar  
Out of the woods  
As hard as nails  
Hang by a thread  
A hard nut to crack  
Someone's cup of tea  
Fix someone's wagon



APPENDIX E

NON-NATIVE SUBJECT PROFILES

Subject #	Gender	Age	TOEFL score	Time spent in U.S.	Years studied English	# Correct* Explanation	# Correct* Forced-Choice
I1	F	22	600	9 mos.	14	8	16
I2	M	28	617	1 yr. 8 mos.	15	5	15
I3	M	26	623	4 mos.	13	13	22
I4	M	26	523	2 yrs. 9 mos.	13	9	18
I5	F	32	596	10 mos.	15	3	12
I6	M	32	578	1 yr. 4 mos.	15	3	11
I7	F	29	590	4 yrs. 8 mos.	6	15	18
I8	M	36	610	7 yrs. 0 mos.	9	6	16
I9	M	37	590	3 yrs. 5 mos.	10	2	16
I10	F	19	587	2 yrs. 0 mos.	9	8	17
I11	M	29	550	4 yrs. 6 mos.	7	14	24
I12	M	20	510	1 yr. 0 mos.	6	10	16

Note. \* Number correct out of a possible score of 28

APPENDIX F

MEAN FAMILIARITY AND TRANSPARENCY RATINGS

Mean Familiarity and Transparency Ratings of the 28 Idioms Used in Study Two (as judged by the Study One subjects)

Idiom	Familiarity Rating	Transparency Rating
1. Behind someone's back	1.0	1.4
2. On the ball	1.0	2.4
3. Look on the bright side	1.0	1.9
4. Runs in the family	1.0	1.2
5. Over someone's head	1.0	2.2
6. Bite one's tongue	1.2	1.4
7. Second thoughts	1.2	1.2
8. Call it a day	1.2	1.2
9. Bump into	1.4	1.3
10. Ask for trouble	1.4	1.4
11. Keep a straight face	1.6	1.4
12. Wear out one's welcome	1.6	1.0
13. By the book	1.7	1.2
14. Lay down the law	1.8	1.3
15. Go to someone's head	2.5	2.4
16. Make one's blood boil	2.5	2.2
17. Scratch the surface	2.5	2.4
18. Out of the woods	2.5	2.1
19. Go to bat for	2.5	2.2
20. Paint the town red	2.6	2.8
21. On a dime	2.6	2.5
22. Take the floor	2.7	1.8
23. Hot under the collar	2.8	2.5
24. A hard nut to crack	3.2	2.6
25. Take someone to the cleaners	3.4	2.7
26. Wet one's whistle	3.5	2.3
27. Fix someone's wagon	3.7	2.8
28. Paper over the cracks	4.5	2.8

Note. Familiarity: 1 = heard or read it *many* times before; 5 = *never* heard or read it before. Transparency: 1 = literal and nonliteral meanings are *closely* related; 3 = literal and nonliteral meanings are *not* related.

APPENDIX G

SUPPORTIVE CONTEXT PARAGRAPHS

## Practice Items:

Jeff had overslept and he didn't want to be late for school. He got dressed quickly, skipped breakfast, and jumped on his bicycle. Jeff rode down the driveway without wearing his helmet. His neighbor said, "You're *skating on thin ice*." What does it mean to *skate on thin ice*?

Jack owned a flower shop, and he kept it very clean. One day, Jack found trash from the bakery blocking his doorway. He talked to the bakery owner about the problem. Later, Jack said, "The bakery owner *crossed swords with me*." What does it mean to *cross swords with someone*?

## Test Items:

1. John and Bill were playing baseball in Bill's front yard. They were playing catch when they accidentally broke the neighbor's window. They agreed to not tell anyone what happened. However, when Bill's mom asked him if he knew anything about the broken window, he went *behind John's back* and told his mom what had happened. What does it mean to *go behind someone's back*?
2. Kathy was ten minutes late to a meeting at work. During the meeting, her boss asked for her opinion regarding an important account. Kathy admitted that she had not had time to review the account. Following the meeting, Kathy's boss told her she had better get *on the ball* if she wanted to keep her job. What does *on the ball* mean?
3. Matt was looking forward to his vacation in Florida. He planned to play golf and spend time enjoying the outdoors. However, it rained during his entire vacation. When Matt complained, his wife replied, "*Look on the bright side*. You could be at work." What does *look on the bright side* mean?
4. When Tom's father retired, Tom took over his business. Tom met with one of his dad's associates, Mr. Watkins, to discuss the future of the business. Mr. Watkins was very impressed by Tom and thought he reminded him of Tom's dad. Following the meeting Mr. Watkins told Tom, "Good business instincts must *run in the family*." What does *run in the family* mean?
5. Kelly's teenage sister was telling her friends a joke. When she finished, all her friends started laughing. Kelly was puzzled and asked "What's so funny?" Her sister replied, "Don't worry, it's *over your head*." What does *over one's head* mean?

6. Abigail's friends were talking about an issue she strongly disagreed with. The more they talked, the more upset she became. She knew that expressing her opinion would upset her friends. When they asked her what she thought, she *bit her tongue* and shrugged her shoulders. What does it mean to *bite one's tongue*?
7. Kristen had never ridden a roller coaster. Now she and her friends were standing in line watching the cars speed by. Her friends told her about all the loops and turns in the ride. When it was their turn to board the ride, Kristen began having *second thoughts*. What does *second thoughts* mean?
8. Mrs. Johnson asked her husband to clean out the garage one Saturday morning. He reluctantly dressed and went to work. Mrs. Johnson didn't see him all day until dinner time when she went out to the garage. Mr. Johnson was still busy working, but Mrs. Johnson told him to *call it a day*. What does it mean to *call it a day*?
9. Mary was home from college during fall break. While home she decided to go shopping at the local mall. While there she saw a friend she hadn't seen since high school. When she got home she told her mom, "You'll never believe who I *bumped into*." What does it mean to *bump into someone*?
10. Cory liked to play with his older brother's race track. However, this really upset his brother who felt Cory would break something. One day while his brother was gone, Cory snuck into his room to play with the track. When Cory's mom found him in the room she said, "You're *asking for trouble*, Cory." What does it mean to *ask for trouble*?
11. Meghan was sitting in class listening to the professor as he lectured. She noticed that the guy in front of her was starting to fall asleep. Meghan watched as his head began to bob up and down, then suddenly, his head fell forward and hit the top of the desk. Meghan had to struggle to *keep a straight face*. What does it mean to *keep a straight face*?
12. Mandy went over to Susan's house everyday after school. They loved to talk and play games together. On Friday, Susan asked Mandy to stay the night. When Mandy asked her mom for permission, her mom replied, "Don't you think you're going to *wear out your welcome*?" What does it mean to *wear out one's welcome*?
13. Joe's job was to review each proposal before he passed it on to his boss. Lately he had been too busy to read each proposal; therefore, he had his assistant help him with this project. After a few weeks, his boss found out what Joe was doing and called him into his office. He told Joe, "You had better start doing things *by the book* if you want to keep your job." What does *by the book* mean?

14. Mrs. Johnson teaches the 3<sup>rd</sup> grade. One day she was called to the office to take a telephone call. When she returned to the classroom, she found the kids running around and screaming. Once the class was seated, she knew she had to *lay down the law*, so such a situation would not occur again. What does it mean to *lay down the law*?

15. Toby made the winning touchdown for his team in the final game of the season. His team carried him to the locker room on their shoulders as the crowd cheered. The next day at school everyone clapped as he entered the building. His younger sister thought to herself that all this attention would *go to Toby's head*. What does *go to one's head* mean?

16. Brad took his sister's doll and was making fun of her. His sister began crying and yelling at Brad. Their mother came into the room when she heard all the noise. When she saw them arguing, she exclaimed, "Your constant arguing *makes my blood boil*." What does it mean to *make one's blood boil*?

17. Jessica was enrolled in a history class at the local college. She was very anxious to learn more about the Civil War. On the first day the professor discussed what would be covered in class. Jessica was disappointed to learn that because of the short meeting time, they would only be able to *scratch the surface* of most issues. What does it mean to *scratch the surface*?

18. Fred had a bad car accident and was in a coma with a broken leg. When he came out of the coma, his family was very relieved and thought everything was going to continue to improve. The doctor examined Fred and found that there was some brain swelling. When he talked to Fred's family he said, "Fred is getting better, but he's not *out of the woods* yet." What does *out of the woods* mean?

19. Tara and John work together at a local supermarket. One day some money was missing and John accused Tara of stealing it. However, two other coworkers had seen John take the money. They told Tara about what they had seen and agreed to *go to bat for her* when the boss questioned them. What does *go to bat for someone* mean?

20. The Panthers and the Warriors were major football rivals. However, it had been 15 years since the Panthers had beaten the Warriors. When the Panthers won by two touchdowns, their fans were very excited. Many of them went out to *paint the town red* following the victory. What does it mean to *paint the town red*?

21. Doug's car needed new brakes, so he took the car in to have them replaced. When he picked up his car from the shop, he asked the mechanic if he could test them before he paid. After he returned, the mechanic asked him what he thought. Doug replied, "They work great, I could stop *on a dime*!" What does *on a dime* mean?



22. The seniors were discussing their upcoming senior trip. Each person had been assigned to a committee. Brenda was in charge of where the class would stay. Following a presentation of places the class would visit, the class president asked Brenda to *take the floor* to discuss what her committee had planned. What does it mean to *take the floor*?

23. Kyle and Matt are roommates at college. Kyle likes their apartment to be neat, but Matt often leaves his belongings all over the apartment. One day, they discussed their differences, and Matt agreed to not be as messy. However, the next day when Kyle came home and found Matt's things lying around the apartment, it made him really *hot under the collar*. What does it mean to be *hot under the collar*?

24. Mary was always a good student. However, she struggling with college algebra. Despite her efforts to study more, she continued to have difficulty. When Mary's parents asked her what the problem was, she replied, "Algebra is a *hard nut to crack*." What does a *hard nut to crack* mean?

25. Following the hail storm, many homes needed their roofs repaired. The Smith family paid a local company to repair their roof. A few weeks after the repairs were made, the Smith's noticed their roof was leaking. Upon inspection they realized they had been *taken to the cleaners* by the roofing company as the roof had never been fixed. What does it mean to *take someone to the cleaners*?

26. Randy was mowing his lawn on a hot summer day. After a half hour, he was sweating and was very thirsty. When he went inside, his wife asked if he was already finished. Randy replied, "No, I just came in to *wet my whistle*." What does it mean to *wet one's whistle*?

27. Bob and Ted were running against each other for president of the student body. Ted was winning the race until, Bob heard some gossip about Ted. Bob decided to continue spreading this gossip around campus. When his friends asked what his plan was Bob replied, "I'm going to *fix his wagon*." What does it mean to *fix someone's wagon*?

28. While on vacation, Beth's car broke down. A mechanic said the repairs would take four days because he had to order some special parts. Beth told the mechanic to fix the car today. The mechanic said, "I'll *paper over the cracks*." What does it mean to *paper over the cracks*?

APPENDIX H

FORCED-CHOICE ANSWERS

## Practice Items:

## Skate on thin ice

- a. to make a bad decision
- b. *to be in a dangerous situation*
- c. to almost miss something
- d. to make someone angry

## Cross swords with someone

- a. to tell lies
- b. to be rude
- c. to help someone
- d. *to argue or fight*

## Test Items:

## 1. Behind someone's back

- a. to lie about something
- b. *to do something without another's knowledge or consent*
- c. to blame another person
- d. to make a bad decision

## 2. On the ball

- a. *pay attention and do things well*
- b. get to work early
- c. ask for help
- d. contribute to a cause

## 3. Look on the bright side

- a. *think of the advantages in a situation*
- b. cheer up
- c. think of things that make one happy
- d. pretend to be happy

## 4. Runs in the family

- a. to be taught by one's family
- b. to be a family secret
- c. to share similar goals
- d. *to be a common family characteristic*

## 5. Over someone's head

- a. not meant for one to understand
- b. boring for certain individuals
- c. *beyond one's ability to understand*
- d. not appropriate for certain individuals

## 6. Bite one's tongue

- a. to lie about one's true feelings
- b. *to force oneself to remain silent and not reveal one's feelings*
- c. to fight for one's opinions
- d. to express one's thought despite the results

## 7. Second thoughts

- a. *a change of ideas or opinions*
- b. fearful thoughts
- c. to think of the consequences in a situation
- d. to ask for a second opinion

## 8. Call it a day

- a. to give up
- b. *to quit for the day*
- c. to finish quickly
- d. to leave things as they are

## 9. Bump into

- a. to make plans to meet again
- b. to talk to someone
- c. *to meet without expecting to*
- d. to spend time with someone

## 10. Ask for trouble

- a. to do something without another's permission
- b. *to do or say something that will cause difficulties or problems*
- c. to do something to try to get in trouble
- d. to do something to purposely make a person mad

## 11. Keep a straight face

- a. to remain quiet
- b. to pay attention
- c. to stay awake and not yawn
- d. *to remain serious and not laugh or smile*

## 12. Wear out one's welcome

- a. to do something over and over again
- b. to bother those around you
- c. *to visit somewhere too long or come back too often*
- d. to spend too much time with one person

## 13. By the book

- a. *according to the rules*
- b. in a more timely manner
- c. on one's own without help from others
- d. in an honest manner

## 14. Lay down the law

- a. *to give strict orders or rules*
- b. to discipline someone
- c. to have a policeman visit
- d. to gain control of a situation

## 15. Go to someone's head

- a. to make someone very happy
- b. *to make someone too proud*
- c. to make someone embarrassed
- d. to make someone perform better

## 16. Make one's blood boil

- a. to make someone disappointed
- b. to make someone yell
- c. *to make someone very angry*
- d. to make someone feel hot

## 17. Scratch the surface

- a. *to learn very little about something*
- b. to have a discussion
- c. to receive a brief overview
- d. to learn important details

## 18. Out of the woods

- a. gain a new perspective
- b. *free from difficulties or troubles*
- c. able to understand a situation
- d. awake and alert

## 19. Go to bat for someone

- a. to be friends with someone
- b. to tell the truth
- c. to protect someone by lying
- d. *to help out in trouble or need*

## 20. Paint the town red

- a. *to celebrate wildly*
- b. to cause trouble
- c. to decorate a place
- d. to stay out all night

## 21. On a dime

- a. in a short amount of time
- b. with limited effort
- c. *in a very small space*
- d. at the right moment

## 22. Take the floor

- a. *to get up and speak during a meeting*
- b. to leave the room following a speech
- c. to preside over a meeting
- d. to go to the front of the room

23. Hot under the collar

- a. to be excited
- b. *to be angry*
- c. to be embarrassed
- d. to be anxious

24. A hard nut to crack

- a. something that is boring or uninteresting
- b. something that is impossible
- c. *something difficult to understand or to do*
- d. something requiring special skills

25. Take someone to the cleaners

- a. to rob a person of his money
- b. to lie to a person
- c. *to cheat a person out of his money*
- d. to take something that is not your own

26. Wet one's whistle

- a. to take a break
- b. to cool down
- c. *to have a drink*
- d. to get something to eat

27. Fix someone's wagon

- a. to make another upset
- b. to help one succeed
- c. to cause one embarrassment
- d. *to engineer another's failure*

28. Paper over the cracks

- a. *to make temporary repairs*
- b. to work very hard
- c. to get help from others
- d. to get the job done

APPENDIX I

INSTITUTIONAL REVIEW BOARD

APPROVAL FORM



OKLAHOMA STATE UNIVERSITY  
INSTITUTIONAL REVIEW BOARD

Date: August 25, 1999 IRB #: AS-00-080

Proposal Title: "THE EFFECTS OF FAMILIARITY AND TRANSPARENCY ON IDIOM  
COMPREHENSION IN NATIVE AND NON-NATIVE SPEAKERS OF  
ENGLISH"

Principal Investigator(s): Nancy Monroe REBECCA KOBISKIE  
Connie Stout  
Kaye Strom

Reviewed and  
Processed as: Expedited

Approval Status Recommended by Reviewer(s): Approved

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Signature:

*Carol Olson*

Carol Olson, Director of University Research Compliance

August 25, 1999

Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modification to the research project approved by the IRB must be submitted for approval. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Rebecca E. Kobiskie

Candidate for the Degree of

Master of Arts

Thesis: FACTORS AFFECTING IDIOM COMPREHENSION IN NATIVE AND NON-NATIVE SPEAKERS OF ENGLISH

Major Field: Speech

Area of Emphasis: Communication Sciences and Disorders

Personal Data: Born in Newton, Kansas, January 3, 1976, the daughter of Gerald and Jane Duerksen. Married to Kristopher Kobiskie on May 31, 1997.

Education: Graduated from Canton-Galva High School, Canton, Kansas in May 1994. Received Bachelor of Science degree in Communication Sciences and Disorders from Kansas State University, Manhattan, Kansas in May 1998. Completed requirements for Master of Arts degree at Oklahoma State University, Stillwater, Oklahoma in July 2000.

Professional Experience: Employed by Oklahoma State University, Department of Communication Sciences and Disorders, as a graduate assistant, August 1998 to August 1999. Completed clinical practicum internships at Cushing Regional Hospital, Cushing, Oklahoma, June 2000 to August 2000; Fairchild Center, Billings, Oklahoma, June 2000 to August 2000; Oklahoma State University Speech-Language-Hearing Clinic, Stillwater, Oklahoma, August 1998 to December 1998 and June 1999 to May 2000; Highland Park Elementary School, Stillwater, Oklahoma, October 1999 to December 1999; Yale Elementary School, Yale, Oklahoma, August 1999 to September 1999; and Sheltered Workshop of Payne County, August 1998 to December 1998.

Professional Affiliations: OSHA: Oklahoma Speech-Language-Hearing Association; NSSLHA: National Student Speech-Language-Hearing Association; OSU-NSSLHA: Oklahoma State University - National Student Speech-Language-Hearing Association.