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# Tracking the incidence of formulaic expressions in everyday speech: methods for classification and verification

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## Abstract

The importance in communication of speech formulas, idioms, proverbs and other formulaic expressions (FEs) has recently been recognized, but studies of their actual usage are still few, and methods of classification remain unrefined. The incidence of FEs in a screenplay, *Some Like It Hot*, was examined, and found to make up nearly 25% of the phrases in the text. These results are compared with other corpus studies. To verify the classification method used, a survey provided a quantification of native speakers' knowledge of FEs. These findings support a dual model of language ability that includes both configurational and combinatorial modes.

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## 1. Introduction

Human language is distinguished by its creative potential. New sentences, never spoken or heard before, can easily be formulated given the set of rules for

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combining a large set of vocabulary items (Chomsky, 1965). As linguists have explained for many years, this system allows for the generation of an infinite set of context-free sentences from a finite grammar (e.g., Akmajian et al., 1984; Trask, 1995). The standard view in linguistic textbooks is stated by Pinker: “...*virtually every sentence that a person utters or understands is a brand-new combination of words, appearing for the first time in the history of the universe*” (Pinker, 1995, p. 22). This statement, however, is seriously misleading. Many utterances in everyday language are conventional expressions that must be used in a certain way.

Conventional or formulaic expressions (FEs) are distinguished from novel utterances in a number of ways. They often contain lexical items with nonliteral or nonstandard meanings (e.g., “*It broke the ice*”; “*just in the nick of time*”). Unlike novel sentences, which can be strictly neutral in affective content, FEs are generally laced with attitudinal or emotional innuendoes.<sup>1</sup> For example, “*she has him eating out of her hand*” implies submission, dependence, and emotional attachment; similarly, “*have a nice day*” entails pleasantness. In contrast, the novel expression “*the cat is on the chair*” requires marked intonation or added adjectives to communicate any particular affective nuance.

Most importantly, and as an essential, even definitional feature, FEs have a unique coherence not present in novel utterances. Word selection and word order are determined; intonation is usually stereotyped, in that choices for sentence accent are limited: *No man is an island* sounds “wrong” with an accent on *man* or *is*; *I wouldn’t want to be in his shoes* does not sound native, or well-formed, when *shoes* carries the accent (these kinds of “errors” are heard in second language speakers, (Van Lancker-Sidtis, 2004)).

FEs are “familiar” in the sense that a native speaker will recognize them as having this special status. For example, the sentence “The stuffed cat has triangular-shaped green spots” has probably not been heard before; this sentence has none of the properties of familiarity and predictability mentioned above. On the other hand, the expressions “*See you later!*” or “*Let’s call it a day*” or “*You don’t say!*” (speech formulas); “*I’d like to give you a piece of my mind*” or “*He’s at the end of his rope*” (idioms); and “*Look before you leap*” or “*He who hesitates is lost*” (proverbs) are all “familiar”, in that native speakers can recognize and complete these utterances (when words are omitted) as well as demonstrate knowledge of their specialized meanings and appropriate contexts. As stated by Jackendoff (1995), a very large number of a broad range of formulaic expressions “*are familiar to American speakers of English; that is, an American speaker must have them stored in memory*” (p. 135). It follows that a survey using recall and recognition tasks adapted for the study of FEs can provide objective and quantifiable data to support the claim that native speakers “know” FEs.

<sup>1</sup> Conventional expressions such as “as a matter of fact” and “salt and pepper” are cohesive and familiar, but often lack the nonliteral and affective properties inherent in most other formulaic expressions.

Linguistic scholars collecting speech formulae – the expressions used in conversational interaction – have not exhausted the list; there are probably tens of thousands of these utterances. They are very important for native competence (Fillmore, 1979); that is, to sound like a native speaker, proper knowledge and use of speech formulae is essential (Pawley, 1985, 1991; Pawley and Syder, 1983; Jespersen, 1933; Lakoff, 1973; Searle, 1975; Wray and Perkins, 2000). Additional important categories of FEs are idioms and proverbs (Taylor, 1931; Mieder, 1978, 1984; Makkai, 1972; Honeck, 1997; Strässler, 1982; Gibbs, 1994; Gibbs and Nayak, 1989; Cutting and Bock, 1997; Templeton, 1997; Glucksberg, 1991; Tannen, 1989), as well as a large array of formulaic expressions variously classified as slang, sayings, expletives, clichés, maxims, and slogans, and other types of collocations (Van Lancker, 1975, 1988; Alexander, 1978; Cermák, 1994; Coulmas, 1981, 1994). In his study of idioms, Weinreich (1969) gave an estimate of 25,000 formulaic expressions in English. Jackendoff (1995) derived a long list from the television show “Wheel of Fortune”, where over 10 years approximately 15,000 formulaic expressions have occurred. Bolinger (1976) asserted that memorized expressions play a significant role at all levels of the grammar – that these unitary expressions interact continuously with newly created output (Bolinger, 1977; Sinclair, 1987).

It is likely that the characteristics of rhyme, alliteration and rhythm so frequently seen in formulaic expressions (e.g., “*bell, book and candle*”, “*it takes one to know one*”, “*the coast is clear*”, “*the best laid plans of mice and men*”) assist in maintaining the repertory of formulaic expressions (Alexander, 1978). Numerous phonological and semantic factors that may underlie speakers’ knowledge of the formulaic linear order of a huge repertory of frozen expressions have been examined (Cooper and Ross, 1975; Pinker and Birdsong, 1979) but none of these efforts provides convincingly simplified generalities. The compelling but strange fact remains that speakers of a language know “by heart” a very, very large number of formulaic expressions.

Attempts to characterize the structure of FEs or to integrate them in current language models have met with mixed success (Katz, 1973; Nunberg et al., 1994). Serious scholarship in formulaic expressions in English has been somewhat hindered by a perspective that they are “*inferior speech*” (a term used by Hughlings Jackson, 1874; see also Redfern, 1989), or a “*‘lazy’ solution to linguistic selection*” (Drew and Holt, 1988). Traditional linguistic studies have largely ignored these formulaic expressions (but see Chafe, 1968; Weinreich, 1969); a plea for “*serious grammatical consideration of the ‘realm of idiomaticity in a language’*” appears in Fillmore et al. (1988, p. 534).<sup>2</sup>

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<sup>2</sup> Other linguistic cultures may hold FEs in higher regard: in Nigeria, proverbs are brought into important points in conversation (Achebe, 1958), Yiddish sayings are utilized for transmitting wisdom (Matisoff, 1979), and Turkish and Greek languages honor tactical use of speech formulas (Tannen and Öztekin, 1981). Russian culture also appears to value formulaic expressions.

In English speaking cultures, not only are FEs often subsumed under the opprobrious label of “cliches”, but also current linguistic models emphasize combinatorial creativity as the central property of human language (Van Lancker, 2001a). However, there is a strong argument for a model of language that allows for alternation of “*fixity and creativity*” (Tannen, 1989). People performing conversational analysis are led to this view. Some have seen repetition as “*at the heart...of how discourse is created*” (p. 3). This is accomplished in large part by use of iterated instances of mutually known – formulaic – expressions.

These observations lead to a model of language that supports two different modes of processing, which several authors have previously proposed. Hopper (1988) speaks of both “*a priori*” and “*emergent*” aspects of grammar. Lounsbury (1963) described two constructions, one ad hoc and the other “*familiar and employed as a whole unit*”, as constituting different behavioral events; he suggested that “*their psychological statuses in the structure of actual speaking behavior may be quite different*” (p. 561). Bolinger (1961, 1976, 1977) consistently recognized and gave evidence of an interplay between more or less remembered and newly created speech, and more recently, Sinclair (1987, 1991) posits the “*open choice*” and the “*idiom*” principles as underlying text description. An interplay of “*automatic*” and newly created processes has traditionally been noted in behaviors of many kinds (gestural, vocal, motor), with corresponding involvement of levels of the hierarchically organized nervous system (Van Lancker and Cummings, 1999; Lieberman, 2000, 2001; Koestler, 1967).

There is strong evidence from studies of normal and brain-damaged subjects that novel language and FEs are processed by different mental (Lieberman, 1963; Swinney and Cutler, 1979; Botelho da Silva and Cutler, 1993; Hoffman and Kemper, 1987) and neurological structures (Van Lancker, 1973, 1990, 1993, 2001a,b; Winner and Gardner, 1977; Kempler et al., 1988; Myers and Linebaugh, 1981; Papagno and Vallar, 2001). People with aphasia are sometimes able to better process formulaic than novel expressions (Van Lancker, 1994; Van Lancker, 2000; Code, 1982, 1987, 1989; Blanken and Marini, 1997; Blanken et al., 1990) which may be attributable to right hemisphere function in production (Graves and Landis, 1985) and comprehension (Hughlings Jackson, 1874, 1915; Gardner et al., 1983; Van Lancker and Kempler, 1987; Burgess and Chiarello, 1996). A role of the basal ganglia, which may have motor control functions that more complex than previously understood (Marsden, 1982; Baev, 1997; Cummings, 1993), has also been implicated in processing of formulaic expressions (Speedie et al., 1993; Van Lancker and Cummings, 1999; Van Lancker, 2001a).

Although there is recently increased interest in FEs (e.g., Wray, 2002), little actual incidence data are available. Some material is found in Hain (1951), who catalogued formulaic expressions in actual use among people who lived in a small German village. Jay (1980) and Gallahorn (1971) tabulated use of cursing in specific populations (e.g., college students, health care professionals on a psychiatric ward). Altenberg (1998) listed three-word combinations that occurred 10 times or more in the London-Lund Corpus (Greenbaum and Svartik, 1990). Cowie (1992) performed a study on “*multiword lexical units*” in newspaper language, differentiating idioms

from collocations of various kinds. In the most extensive treatment to date, Moon (1998a,b) performed a descriptive study of formulaic expressions and idioms in an 18 million-word corpus of contemporary English, the Oxford Hector Pilot Corpus (Glassman et al., 1992), augmenting her analysis from other text sources. Norrick (1985) reports only one complete proverb, plus a few proverbial allusions, in the 43,165 line corpus of transcribed conversation published by Svartik and Quirk (1980). A comparative frequency count of proverbs in French and English conversational corpora is described by Arnaud and Moon (1993).

Studies of the role of formulaic expressions in literary texts, especially in oral literature, (Kiparsky, 1976; Kuiper, 2000), counted proverbs in the plays of Shakespeare (Tilley, 1950; see Mieder, 1984). Schweizer (1978) listed 194 idioms in 2876 pages of six novels of Günter Grass, yielding an average of 14.8 idioms per page. She describes numerous literary devices throughout Grass' writings that involve idiomatic forms and meanings. The plays of Ionesco utilize an abundance of speech formulas to artistic effect as discussed by Klaver (1989). In his study of Homer's *Iliad*, Page (1959) estimates that about one-fifth of the poem is "composed of lines wholly repeated from one place to another" (p. 223), and that within the *Iliad*'s 28,000 lines, there are approximately 25,000 repeated phrases.

As a field of study, formulaic language is handicapped by a bewildering array of variously defined terms (Wray and Perkins, 2000). Partly because of the uncontrolled and nonstandardized nomenclature, classification of FEs is difficult, and, compounding the problem, methods for verification of categories are almost nonexistent. To develop better methods for classifying formulaic expressions, an analysis of conversational dialog in a screenplay was first performed, followed by a verification survey, and comparison of these results with measures made on natural conversational speech corpora. A screenplay was selected to document the use of formulaic expressions in interactive talk, making the assumption that the authors were trying to imitate natural speech.

## 2. Methods and materials

The screenplay "*Some Like It Hot*"<sup>3</sup> (SLIH) by Wilder and Diamond (1959) was selected, because it has achieved the status of a classic, and it depicts lively conversation among a number of different characters. All formulaic expressions were identified and classified into one of three relatively specifiable categories by two independent raters. Disagreements were mediated until both raters agreed. Identified FEs were first classified either as speech formula, idiom, or proverb. Many finer distinctions could have been attempted, subclassifying into expletives, exclamations,

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<sup>3</sup> A special, pictorial edition of *Some Like It Hot* (Castle and Auiler, 2001) was recently published to honor Billy Wilder. This effort acknowledged the 40th anniversary of the opening of the film (Rothman, 1999). At the time of his death a short time later at 95 years of age in 2002, Wilder was widely memorialized in the media as a great innovator and brilliant moviemaker.

pause fillers, back channels, greetings, conventional expressions, and so on (Van Lancker, 1988; Wray, 2002; Duncan and Niederehe, 1974; Schegloff, 1988; McCarthy, in press). However, since the immediate goals of this study were to determine incidence of formulaic expressions in comparison to novel expressions and to develop a verification survey of this comparison, it was judged that grosser categories would best serve this stage of study. Classification is not at all straightforward, and it has often been noted that formulaic expressions sometimes fall into more than one category (Van Lancker, 2000; Altenberg, 1998).

The criteria for this study were as follows: speech formulas are highly dependent on conversational context and often serve the dialog forward (e.g., “*That’s good thinking*”) or monitor the action (“*This is where I get off*”), while others form standard introductory forms in the sentence (e.g., “*The last I heard*”). Other expressions which are obviously unitary, such as “*all expenses paid*” or “*as far away as possible*”, but are neither nonliteral (idiomatic) nor proverbial, were included in the group of speech formulas. In contrast, idioms are relatively context-free and their meaning cannot be strictly determined from the usual meanings of the words (e.g., “*Why do you have to paint everything so black?*”); proverbs have both literal and nonliteral interpretations, and point to a universal meaning (e.g., “*You can’t make an omelet without breaking an egg*” or “*You can’t keep a good man down*”). The line between speech formula and idiom is often not clear. In many instances, an arbitrary decision was made, given the overall goal of this project, which was to establish the proportion of formulaic utterances in the dialog. For the most part, entire phrases or expressions were listed; this included single words if that word constituted a full expression (e.g., *Right!*). Mere cohesion, such as is seen the idiosyncratic verb plus particle construction (e.g., run up) was not a criterion. A full listing is provided in Appendix A.

### 3. Results: quantitative views

FEs present in the dialog were classified using these criteria. Both types (unique expressions) and tokens (repeated occurrences) were counted and percentages for each FE category were determined. The dialog, excluding stage directions and character descriptions, contains 12,523 total words. The average number of words in a conversational turn was 10.2 words. The total number of words comprising FEs was 2008, or 16% of the words in the screenplay. The total number of FE tokens is 529; removing repetitions yields 400 FE types. The average number of words per formulaic phrase was 4.6 words, with a range of 1–14 words in length. To estimate incidence usage of FEs, occurrences of repeated phrases were included. Forty-one FEs were repeated between 2 and 23 times. Most of these were classified as speech formulas. The formulaic phrase category with the most members was speech formula, with a total of 377 unique expressions; there were 145 idioms, and 7 proverbs (see Fig. 1). Expressions ranged from 1 to 14 words in length. Excluding “*yes*”, “*no*”, and “*well*”, there were 13 one-word expression

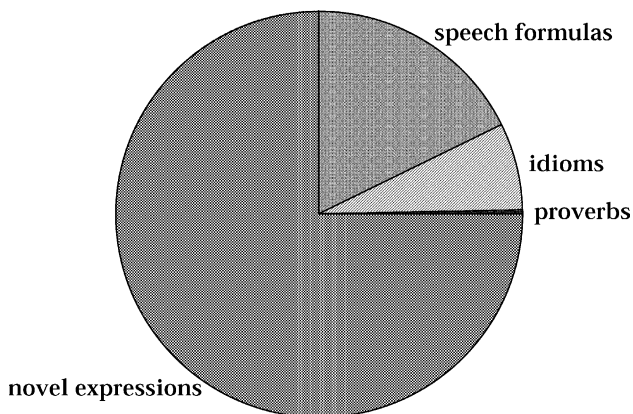


Fig. 1. Relative groupings of familiar nonliteral expressions classified as formulas, idioms, proverbs, and novel expressions.

types, all of which were classified as formulas. Examples are “okay”, “zowie”, and “good-bye”. Two-word expressions were the most frequent.

As an estimate of the distribution of FEs throughout the screenplay, we divided the dialog into 21 sets of 100 sentences or phrases, and counted all the FEs in each set. Repetitions of previous phrases were included in the count. There was a mean of 24 formulaic phrases per set of one hundred lines, with a range of 9–44. Fig. 2 shows the distribution of formulas, idioms, and proverbs throughout

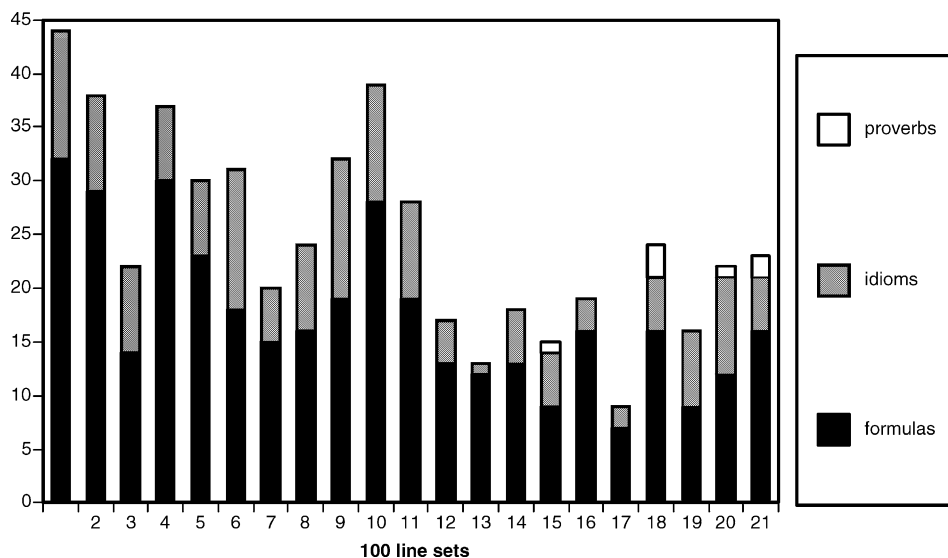


Fig. 2. Distribution of FEs across the screenplay.

the screenplay, as calculated per sets of 100 lines. The percentage of FEs, when viewed as a proportion of the total number of produced phrases (rather than in terms of total word count), is 24.8%. This discrepancy (considering the FEs constitute 16% of the total word count) is attributable to the fact that many of the formulaic phrases are made up of one or two words, while novel expressions tend to be longer. Considering that the MGM/Ua Studio 1959 film version of the screenplay is 121 min long, the average FEs per minute is 4.3. When the distribution of idioms, formulas and proverbs across the screenplay is observed (Fig. 2), it can be seen that formulas occur more conspicuously toward the beginning of the action, when dramatis personae are getting acquainted and setting up the story, while proverbs, which are used to impart general wisdom and truths (Van Lancker, 2000; Norrick, 1985; Honeck, 1997; Tyler, 1978) occur exclusively at the end.

#### 4. Methods and materials: verification survey

To explore the notion of an operational definition of FEs, and to verify the novel-formulaic distinction, a survey was designed to sample knowledge in the general population. The results from this survey would give an indication of what proportion of persons surveyed agreed with our identification of FEs from the screenplay. For the survey, a set of 50 FEs was selected from the list derived from “*Some Like It Hot*”, along with 25 randomly ordered novel sentences, also from the screenplay. The FEs had a mean of 5.1 words per phrase, with a range of 3–11 words; the novel expressions averaged 5.5 words in length, with a range of 3–11 words.

Two tasks were designed: one which resembled a recall procedure, and one which involved recognition of the expressions, in the manner utilized in psycholinguistic testing (e.g., Horowitz and Manelis, 1973; Pickens and Pollio, 1979; Osgood and Housain, 1974). In the recall task, FEs and novel expressions selected from the screenplay were presented in written form, with selected words missing. After giving informed, written consent, subjects filled the blanks in a “cloze” procedure. Each expression was missing one word. Care was taken to evenly distribute blanked words across novel and FEs (see Appendix B). In the recognition task, subjects circled “F” (“familiar expression”) or “N” (novel expression) next to each item. Examples of each were given before the test, and all subjects understood the distinction easily. The order of task, recall followed by recognition, was maintained for all subjects.

All subjects ( $n = 21$ ) were native speakers of American English, educated in the USA, free of neurological or psychiatric disorders. They ranged in age from 18 to 58, with a mean age of 23.5 years and a mean of 16.3 years of education. Data were analyzed for the recall task by tabulating all of the responses for each item across subjects, and calculating the proportion of words that matched the predicted word. For the recognition test, percentage of “F” and “N” responses for the two types of expressions was calculated.



## 5. Verification survey: results

Results are shown in Table 1. On the recall task (cloze), where subjects filled in missing blanks, subjects performed significantly higher on FE than novel items, as reflected in a two-sample, two-tailed *t*-test ( $t = 7.33$ ,  $p < 0.0001$ ). Further, 76% of words filled in by the subjects matched the target expressions for the FEs, compared to 32% for the novel expressions. In the recognition task, performance for both formulaic and novel expressions was overall high, but attribution of FEs to the correct category was significantly higher ( $t = 4.54$ ,  $p < 0.001$ ). The significantly higher performance on recall of words in FEs and the overall high rate of identification of the two categories reflects general knowledge of these expressions, while the modest agreements in the recall (cloze) task for novel expressions is predictable from linguistic redundancy or distributional probabilities, in that lexical and syntactic context in some cases constrains the set of words that may appear.

## 6. Qualitative views: functions of formulaic language

We examined the rich textual usage of formulaic expressions in the screenplay, SLIH, with an eye toward identifying functions known or previously described. Major uses of formulas are to forward the action and to establish rapport and solidarity (Schegloff, 1988; Tannen, 1989; McDermott and Tylbor, 1983). It can be seen in the list provided in Appendix A how many of the expressions function as directional signals, moving the action along: *All aboard, break it up, can we talk to you, Don't crowd me, don't look now, easy now, everybody hands up and face the wall, fill 'er up, get out of here, haven't I seen you somewhere before, I beg your pardon, I can tell you one thing*, and so on. The second major use, establishment of rapport, are also easy to find. Solidarity is expressed throughout by formulaic expressions. Early in the screenplay, while Joe is spinning a story about a toothache as an excuse for missing a date, Jerry suddenly catches on to the ruse, and he feigns his complicity by saying "Boy, did it ever!" When Bienstock, the girls' band manager, says to Joe "You saved our lives", he responds "Likewise, I'm sure",

Table 1  
Mean scores for same-word responses in the recall (cloze procedure) task for formulaic and novel expressions; correct identification of novel and familiar utterances in the recognition task

Type	Recall (Cloze)		Recognition	
	Agreement with target word		Correct ID "F" OR "N" of	
	Mean	S.D.	Mean	S.D.
Formulaic	76%	4	91%	8
Novel	32%	5	66%	24

exploiting the ambiguity of that familiar expression. Formulaic expressions are frequently repeated by two different speakers to echo – and thereby endorse – the communication of the conversation partner. On page 87, Jerry says “First thing tomorrow” to propose a plan to pay back their debts. Two lines later, Joe uses the same expression to introduce his very different proposal: that the money be used to place a bet at the dog track.

In the case of repeated tokens, the same FE is sometimes used with different nuances of meaning (p. 98). Such polysemy of “recurrent word-combinations” has been previously noted (e.g., Moon, 1998a). For example, in the screenplay, “*you don’t say*” means “*you’re kidding*” and is laden with irony on page 21; the same FE communicates “really” on page 24, and, again, a third occurrence (p. 32) expressed surprise and excitement (all screenplay citations are from Wilder and Diamond, 1959). “*I beg your pardon*” also has several different forces of meaning, with something close to “*I’m shocked*” on page 15, more like “*excuse me*” on page 22, and “*can you explain further*” on page 30. “*I’ll say*” is a strong endorsement on page 2, and a mild affirmation on page 37.

In natural conversation, idioms often occur in a context of complaint or disagreement (Drew and Holt, 1988), which also constitutes part of the texture of the screenplay analyzed here. To express their dissatisfaction with the band, the girls say “You’ll be sorry” when Mary Lou welcomes Joe and Jerry to “No Man’s Land” (p. 99); Bienstock complains to Sugar on seeing a flask fall on the ground with “This is the last straw” (p. 101) Jerry interjects in his chant to convince himself he’s a girl “I wish I were dead” (p. 103). “What do you think you’re doing?” confronts Jerry with a complaint about his behavior underwater (p. 116).

Another proposed pragmatic use of idioms, “*to bring a topic to a close*” (Drew and Holt, 1988, p. 31), can be observed in the screenplay. Obvious usages are “*I guess I’d better go now*” (Sugar, p. 119); “*Fat chance*” (Jerry, p. 122); “*You can both take a flying jump*” (Jerry, p. 123); “*It’s the thought that counts*” (Sugar, p. 125); “*Get it while you’re young*” (p. 134); “*let’s shove off*” (Joe, p. 139). Joe terminates play by a small boy (Junior) on the beach with “*This beach ain’t big enough for both of us*” (p. 117). More bluntly, Joe dismisses the bellhop with “*Beat it, buster*” (p. 123). After repeatedly querying Joe about whether his wife was helping him with the yacht, the following interactions occur:

Joe. . . Look, if you’re interested in whether I’m married or not. . .

Sugar. I’m not interested at all.

Joe. Well, I’m not.

Sugar. That’s very interesting.

Here a formulaic expression brings the topic to a close, while echoing previous talk.

In many of these illustrations, it can be seen that FEs are used as aesthetic device – to engage in wordplay (Graesser et al., 1996). Frequent uses of idiomatic

“Sprachspiel” (language play) are to be found, similar to those detailed by Schweizer (1978) in her study of the prose of G. Grass. She details 19 types of language play specifically utilizing the special qualities of idioms: some examples are elliptical use, coordination with words that do not belong in the idiom, two conjoined idioms, exchange of words between idioms, and so on. Versions of these tropes, specifically utilizing the special properties of speech formulas, idioms, and proverbs, appear in the screenplay. It has been suggested that such devices also occur in nonscripted speech (Tannen, 1989; Tannen and Öztekin, 1981) but the extent of this practice remains to be studied in detail; some examples are given below.

In SLIH, more than twenty incidences were found where the occurrence of a formulaic phrase lead to a response (in the following dialog) in which the formulaic phrase was creatively manipulated or some aspect of the formulaic phrase was used literally. Those manipulations affect sentence content and structure, word choice, and conversation turns of the following dialog. For example, as the gangsters mill into the speakeasy, Mulligan uses an FE to make a request of Toothpick Charlie: “*refresh my memory*”, asking who owns the establishment. Charlie responds, giving the name of a major gangster, and Mulligan comments “that’s very refreshing” playing on his previous FE, but this time with even more irony. On page 8, sequencing of FEs makes for a humorous contrast: “*He’s got an empty stomach and it’s gone to his head*” – an FE pun. Another trope in the dialog is the play on a possible literal interpretation of the nonliteral expression. For example, after Joe uses an obvious nonliteral expression in “*you’ve flipped your wig*”, Jerry picks up on a word in the expression and converts it to literal usage: “*Now you’re talking. We pick up a couple of second hand wigs – a little padding here and there...*” (p. 8). Another example combines grouping FEs with playing on the literal meaning when Jerry, dressed as Daphne, says “*this is like falling into a tub of butter*”. He then goes on about how he used to dream about being locked in a pastry shop, alluding to his attraction to the female musicians. Joe responds by saying “we’re on a diet” in his attempt to restrain Jerry. A similar play occurs when Bonapart, a mobster, says “*There was something in that cake that didn’t agree with them*”, referring euphemistically to the five corpses (“them”) on the ground. This is followed by Federal Officer Mulligan’s sarcastic remark “*My compliments to the chef*”. Here two FEs are used in a way that highlights their potential literal meanings, again in an ironic way. The literal meaning derives from the fact that another gangster had leaped out of the cake and sprayed gunshot around the room. A different type of lexical pun, referring to the name of Marilyn Monroe’s character, Sugar, is made in Jerry’s comment “*I’d like to borrow a cup of that sugar*”. A play on idiomatic form is performed by Jerry, trying to hold off Osgood, who is flirting with him; Osgood mentions that his mother thinks he’s on his yacht deep-sea fishing, and Jerry responds: “*Well, pull in your reel...You’re barking up the wrong fish*”, an allusion to the well-known idiom that ends in “*tree*”.

Another subtle play on words occurs when Jerry says “*This is where I get off*”, followed by Osgood’s “*Oh, you don’t get off that easy*”, whereby a term in one

FE (get off) is echoed in another FE. The screenplay title is elicited on page 30, when Joe asks Sugar whether she plays jazz. She answers “*Yeah. Real hot*”. Joe responds with “*Oh. Well, I guess some like it hot*”. In many cases Wilder and Diamond use a FE format, or schema, recurrently, such as “*Just the two of us*” “*Just the two of you?*” or “*it’s not how long you wait – it’s who you’re waiting for*”, and later, “*It’s not how long it takes – it’s who’s taking you*”. In another repetition trope, the characters refer to the “*fuzzy end*” or the “*sweet end*” of the lollipop several times throughout the screenplay, wistfully commenting on their good or bad luck. This practice of repetition has been discussed by Becker (1984) and by Tannen (1989), who argued that “*repetition and variations facilitate comprehension by providing semantically less dense discourse*” (p. 49). Tannen reviews the comparable repetition strategies in “*public speaking, oratory, and drama*” (p. 3).

## 7. Discussion

### 7.1. Quantitative findings

Nearly one fourth of the phrases and sentences in SLIH are speech formulas, idioms, and proverbs. Of these, the majority (76%) are single occurrences of expression types. These findings agree with others, with differences pertaining to varying goals and methodologies. Using criteria similar to ours, Sorhus (1977) reported about 20% formulaic expressions in a Canadian sample of spontaneous speech. Using computer-search criteria, Altenberg (1991, 1998) estimated that London-Lund Corpus (Greenbaum and Svartik, 1990) contained 80% recurrent word-combinations. Soskin and John (1963) found that 75% of expressions were other than information statements, but their classification system was based on meaning and intention of the speaker, while ours was based on formal and functional (utility in the conversational structure) criteria. In agreement with our findings in the screenplay, Moon (1998b) reports that “*simple formulae*” are the most frequent overall. Strässler (1982) counted about one idiom in every four and one half minutes of text, a lower rate than SLIH, which yielded one idiom every 1.2 min. Overall, all studies reviewed indicate that formulaic expressions constitute a significant proportion of discourse.

Results from the survey study indicated that canonical forms of formulaic expressions are part of the competence of native speakers. These findings are in agreement with Šípoš (1984), who reported that, as probes, “*verbatim*” words in idioms lead to higher scores in recognition memory testing than words representing the meaning of idioms. In our survey study, more successful completion of the missing words of FEs than novel expressions is probably represents the idiom completion effect, a well established observation in word association studies (Palermo and Jenkins, 1964; Clark, 1970; Church and Hanks, 1990).

## 7.2. Comparisons with natural speech

Measures from SLIH are obviously limited in their generalizability to usage in everyday human language, as they are from an artistic dialog, not actual conversation. Comparisons between constructed and spontaneous conversational talk reveal interesting similarities and differences in presence of formulaic expressions. In a review of transcriptions of actual, natural conversation, consisting of unscripted telephone calls using nonsouthern American English (CALLHOME, 2000), a large set of similar FEs was observed with, as in the screenplay, the largest portion being speech formulas. However, depending on topic and speakers, counts of FEs ranged widely. We closely examined two unscripted telephone conversations, one a conversation about boyfriends between two females and the other between two males discussing investment banking. In the first conversation, 95 or 48% of the utterances were FEs; in the conversation between business persons, only 24% of the utterances were. Further, in all the natural speech texts examined, there are more word and phrase repetitions, sentence fragments, and pause fillers (e.g., *like, ya know, um, well*) than observed in SLIH. Lacking these features of normal conversation, the incidence of nonnovel speech in SLIH is probably lower than natural dialog, depending on the items counted. Factors such as gender and socioeconomic status of the conversational partners, their topics, and the level of formality or intimacy of their talk have been reported affect the frequency and type of FEs in other natural corpora (e.g., Swales, 1990; Moon, 1998b; Strässler, 1982), and pause-fillers are often more common. These variables affecting usage in natural speech may be muted in conversation written for the theatre.

## 7.3. Validity of SLIH corpus

Given the difficulties that idioms, formulas and proverbs are known to create for second language speakers (Wray, 1999a,b; Cornell, 1999; Howarth, 1998; Verstraten, 1992; Tannen, 1980; Moon, 1992; Van Lancker-Sidtis, 2003), it is interesting to note that both screenwriters of SLIH emigrated from Europe and were not native speakers of English. Billy Wilder was born in 1906 in Austria, and in 1934, at the age of 27, he moved to Hollywood (Lally, 1996; Farber, 1979). Wilder already had an intense interest in Americana; according to his biographers, Wilder's mother "Americanized" the young boy very early on (Zolotow, 1978). Wilder's coauthor, I.A.L. Diamond, emigrated to the US from Romania at the age of nine; he was educated in New York.

It is tempting to speculate that the playful exchange between literal and nonliteral meanings in numerous FEs is attributable to the keener insights into speech formulas, idioms, and proverbs sometimes granted the second language speaker, for whom the expressions may be more "transparent", or compositionally stored. On the other hand, *Some Like It Hot* has been called a "*comic masterpiece*" (Dick, 1996). The authors were brilliant at constructing the screenplay as an art form, and the art in their language may be attributable

simply to their genius. Even more interestingly, sociolinguists have claimed that living conversation naturally contains devices seen in the language arts as much as art imitates life. Tannen (1989) and others have argued that normal conversation contains strategies that are elaborated in literature. She writes that “...ordinary conversation is made up of linguistic strategies that have been thought quintessentially literary” (p. 1). Strategies of repetition are noted in both normal conversation and literature, partially as “involvement strategies” (signaling rapport in conversation); a major source of this practice of repetition is FEs.

#### 7.4. Ambiguity and flexibility in formulaic language

The fully contained discourse unit of the screenplay permitted an opportunity to develop methodologies for identifying, classifying, and quantifying more or less fixed, formulaic phrases in speech. Problems arise in confidently classifying the expressions, since FEs may belong to more than one category. Moon (1998a) reported that 25% of expressions surveyed in her corpora could be assigned to two categories. Further, it is also obvious that most expressions are not actually frozen, but occur in various flexible shapes (Tannen, 1989), so that discretion in classifying formulaic expressions must be used.

Much effort has been expended in trying to describe degrees of decomposability in idioms as one class of formulaic language (e.g., Nunberg et al., 1994; Gibbs and Nayak, 1989). Arguments are over whether or not idioms are decomposable, in what way, and how subclasses of decomposability are formed. There can be no question about the flexibility of ready-made utterances or schemata (Lyons, 1968). These have a fixed scaffolding into which a paradigmatic set of words can occur. Examples are “A few \_\_\_\_\_ short of a \_\_\_\_\_”; “If you had my/his \_\_\_\_\_, you’d be \_\_\_\_\_, too”; “I’m (not) a \_\_\_\_\_ person”. Many of these formulaic structures appear in the dialog, with the expected play on theme and context. One such example is “*What are you, a(n) x*” which occurs as “*What are you, a couple of comedians*” on p. 7; or “*This xx isn’t big enough for xx*” showing up as “*This beach ain’t big enough for the both of us*” on p. 117.

#### 7.5. The dual processing model of language

Questions have been raised about how these types of utterances fit into the larger category of formulaic expressions. The dual processing model accommodates these expressions and all the observations about flexibility and decomposability by proposing two integrated processes. In this model, the speaker’s competence includes a large repertory of recognizable canonical forms which can at anytime be subjected to the legal operations of generative rules. Normal language ability consists of two distinct processes (Sinclair, 1987, 1991; Van Lancker, 2001a,b), one generating combinations of lexical items utilizing freely applied grammatical rules, and the other, a bringing forth of prefabricated verbal assemblages and routines.

It is likely that competencies for formulaic versus novel expression are subserved by different mental processes and neurological structures. Idioms, recognized in their canonical forms as “chunks”, behave in short term memory on a par, with respect to unit size, with single words or syllables in English (Simon, 1974), as well as in a language with a very different writing system, Chinese, whether presented in the auditory or written mode (Simon et al., 1989). Ability to use formulaic versus novel expressions is affected differently by brain damage (Hughlings Jackson, 1874, 1915; Van Lancker, 2001c, 2003). There are likely properties of right hemisphere function, such as pattern recognition, context sensitivity and emotional experiencing that favor processing of FEs (Van Lancker and Ohnesorge, 2002), as well as motor programming ability of the basal ganglia that may underlie use of overlearned expressions.

Competency for formulaic versus novel expressions unfolds according to disparate maturational schedules in child language acquisition (Kempler et al., 1999). Interplay of these holophrases – whole constructions having complex meanings – with linguistically reanalyzed forms has been identified in child language learning (Peters, 1977; Corsaro, 1979; Gleason and Weintraub, 1976; Locke, 1997; Wong Fillmore, 1979). Bolinger (1975) described the child language learning process as holistic at first, and later words “are differentiated out of larger wholes” (p. 100).

In conclusion, converging evidence from analysis of natural speech corpora, psycholinguistic studies in adults and children, and neurolinguistic observations supports a model describing two linguistic processes, which might be called “*compositional and configurational*”, represented by novel and formulaic expressions, respectively. The study of novel utterances has received significant attention in the recent history of linguistic study. A more balanced understanding of language behavior will follow a better appreciation of FE usage, and greater insight into the interaction between FEs and novel expressions.

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## **Appendix A**

Formulaic expressions from *Some Like It Hot*, listed by item number (first occurrence) and set number (1–21) in the screen play. Each set is made up of 100 lines of text. The category (formula, idiom, proverb) and number of occurrences (count) are included in the last two columns.

Item #	Set #	Formulaic expression	Categ	Count
140	4	All aboard, All aboard	f	1
105	4	All expenses paid	f	1
1	1	All right	f	20
470	19	All those little people	f	1
153	5	Am I glad to see you girls	f	1
109	4	And while you're at it	f	1
143	5	Are you crazy?	f	1
318	11	Aren't you a little too young for that?	f	1
291	10	Aren't you a sweetheart	f	1
274	9	As a matter of fact	f	3
138	4	As far away as possible	f	1
499	21	As good as dead	f	1
139	4	At a time like this?	f	1
150	5	Atta girl	f	2
316	10	Believe you me	f	1
239	8	Bingo	f	1
473	19	Bon voyage	f	2
74	2	Boy	f	1
228	8	Break it up	f	1
510	21	But there are laws-conventions	f	1
317	10	Bye	f	1
86	3	Can we talk to you?	f	1
71	2	Come back here!	f	1
332	11	Come in	f	2
81	2	Come on	f	23
233	8	Come on in	f	1
125	4	Come on out of there	f	1
428	17	Congratulations.	f	1
75	2	Did I ever!	f	1
516	21	Do yourself a favor	f	1
455	18	Don't call us – we'll call you	f	1
102	3	Don't crowd me	f	1
421	16	Don't fight it	f	1
172	6	Don't get me started on that	f	1
128	4	Don't I know you from somewhere?	f	1
39	1	Don't look now	f	1
378	14	Don't worry	f	5
491	20	Easy now	f	1
112	4	Everybody hands up and face the wall	f	1
230	8	Everybody out	f	1



**Appendix A** (continued)

Item #	Set #	Formulaic expression	Categ	Count
110	4	Fill'er up	f	1
32	1	First thing tomorrow	f	2
488	20	First thing we got to do is get out of these clothes	f	1
492	20	For he's a jolly good fellow which nobody can deny	f	1
310	10	Forget it	f	2
88	3	Get out of here!	f	1
64	2	Give me a chance	f	1
14	1	Give me five minutes	f	1
17	1	Good evening	f	2
427	16	Good morning	f	2
196	6	Good night	f	9
89	3	Good-bye	f	5
380	14	Got it.	f	1
351	12	Haven't I seen you somewhere before?	f	1
498	20	He still has a lot to learn	f	1
446	18	Hello	f	3
289	10	Help yourself	f	1
333	11	Here you are	f	1
495	20	He's a man who'll go far	f	1
496	20	He's gone too far	f	1
25	1	How about that one?	f	1
30	1	How can you be so selfish?	f	1
412	16	How can you think of food at a time like this?	f	1
4	1	I already told you	f	1
193	6	I beg your pardon	f	3
72	2	I can explain everything	f	1
174	6	I can stop any time I want to	f	1
247	9	I can tell you one thing	f	1
61	2	I can't go on	f	1
466	19	I can't make it tonight	f	1
376	14	I didn't mean any harm	f	1
483	20	I don't know	f	1
118	4	I don't know what you're talking about	f	1
403	15	I don't mind if I do	f	1
346	12	I don't think so	f	1
411	16	I don't want to bore you	f	1
120	4	I had nothing to do with it	f	1

**Appendix A** (continued)

Item #	Set #	Formulaic expression	Categ	Count
375	13	I hope so	f	1
368	13	I just can't wait to see her face	f	1
424	16	I never knew it could be like this	f	1
83	3	I ought to fire you	f	1
281	10	I ought to slug you	f	1
218	7	I tell you	f	1
123	4	I think that I'm gonna be sick	f	1
55	2	I told you	f	1
188	6	I warned you!	f	1
315	10	I work here	f	1
445	18	If I ever saw one	f	1
22	1	If you gotta go – this is the way to do it	f	11
416	16	If you insist	f	1
50	2	If you want to	f	1
361	12	I'll catch up with you	f	1
78	2	I'll make it up to you	f	1
29	1	I'll say	f	2
101	3	I'll think of something	f	1
417	16	I'm afraid not	f	2
422	16	I'm not quite sure	f	1
265	9	I'm not well at all	f	1
263	9	I'm sorry	f	1
344	11	I'm terribly sorry	f	1
284	10	Isn't she a sweetheart?	f	1
215	7	Isn't that ridiculous?	f	1
377	14	it was just a little joke	f	1
56	2	It's a sure thing	f	1
364	13	It's been delightful meeting you both	f	1
158	5	It's entirely mutual	f	1
144	5	It's no use	f	1
402	15	It's not how long it takes – it's who's taking you	f	1
397	15	It's not how long you wait – it's who you're waiting for	f	1
227	8	It's not my fault	f	1
210	7	It's nothing	f	1
400	15	It's sort of funny	f	1
419	16	*It's terribly sweet of you to want to help out – but it's no use	f	1
113	4	Join us!	f	1

**Appendix A** (*continued*)

Item #	Set #	Formulaic expression	Categ	Count
435	17	Just a minute	f	1
116	4	Just dropped in to pay my respects	f	1
312	10	Just my feminine intuition	f	1
113	4	Just the two of us	f	2
136	4	Let's blow	f	2
324	11	Let's get out of here	f	2
43	1	Let's go	f	1
155	5	Likewise, I'm sure	f	1
288	10	May I?	f	1
504	21	My compliments to the chef	f	1
345	11	My fault	f	1
48	2	Never heard of him	f	1
225	8	Never mind	f	1
243	8	Next thing you know	f	1
198	6	Nighty-night	f	1
512	21	No guy is worth it	f	1
305	10	No thank you	f	1
335	11	No thanks	f	1
126	4	None of our business	f	1
163	5	None of that rough talk	f	1
269	9	Not at all	f	1
95	3	Now you're talking!	f	1
167	5	Now you've done it	f	1
53	2	Of course	f	1
238	8	Oh, brother!	f	1
66	2	Oh, no!	f	1
386	14	Oh-zowie!	f	1
8	1	Okay	f	12
179	6	One false move	f	1
448	18	One of these days	f	1
190	6	Pardon me	f	1
304	10	Please	f	2
513	21	Pleased to meet you	f	1
27	1	Respect for the dead	f	1
77	2	Right?	f	4
360	12	Run along	f	1
246	8	See what I mean?	f	1
178	6	See you around	f	1
54	2	Shut up	f	2
463	19	So good to hear your voice again	f	1

**Appendix A** (continued)

Item #	Set #	Formulaic expression	Categ	Count
350	12	So long	f	1
487	20	So what do we do now?	f	1
501	21	So what's a few months between friends?	f	1
264	9	Something I ate	f	1
467	19	Something unexpected came up	f	1
24	1	Sorry	f	2
187	6	Speak up	f	1
200	6	Steady, boy	f	1
221	7	Sure	f	2
57	2	Ten to one	f	1
168	5	Terribly sorry	f	2
59	2	Thank you	f	9
156	5	Thank you ever so	f	1
270	9	Thanks	f	3
321	11	That dirty old man	f	1
52	2	That solves one problem	f	1
214	7	That's ridiculous	f	2
169	5	That's alright	f	1
464	19	That's funny	f	2
383	14	That's good thinking	f	1
394	15	That's it for tonight folks	f	1
450	18	That's life	f	1
104	3	That's no way to talk	f	1
231	8	That's right	f	2
320	11	That's the way I like 'em	f	1
6	1	That's very refreshing	f	1
82	2	The last heard	f	1
371	13	The most wonderful thing happened	f	1
460	18	The way I figure is	f	1
503	21	There was something in that cake that didn't agree with them	f	1
216	7	There-isn't that better?	f	1
508	21	They can't get away	f	1
456	18	They're on to us	f	1
343	11	This beach ain't big enough for the both of us	f	1
223	8	This is a private party...	f	1
2	1	This the joint?	f	1
20	1	This way	f	1
28	1	Tonight's the night	f	1

**Appendix A** (*continued*)

Item #	Set #	Formulaic expression	Categ	Count
121	4	Too bad	f	1
199	6	Toodle-oo	f	1
159	5	Upsy-daisy	f	1
92	3	Wait a minute	f	5
165	5	Watch it	f	1
90	3	We could pass for that	f	1
395	15	Well I'll be	f	2
9	1	We're all set	f	1
166	5	We're on a diet!	f	1
308	10	What a heel he was	f	1
73	2	What a heel!	f	1
278	9	What are we going to do about it?	f	1
328	11	What are you talking about?	f	1
341	11	What do you think you are doing?	f	3
413	16	What else is there for me?	f	1
257	9	What happened?	f	1
303	10	What kind of girl do you think I am	f	1
311	10	What makes you so sure?	f	1
23	1	what'll it be	f	1
259	9	What's going on around here?	f	1
226	8	What's going on here?	f	1
262	9	What's the big idea?	f	1
440	18	What's the idea?	f	1
482	20	What's the matter	f	1
237	8	What's the matter with you?	f	1
10	1	When is the kickoff?	f	1
131	4	Where do you think you're going?	f	1
146	5	Who are we kidding?	f	1
429	17	Who's the lucky girl?	f	1
392	14	Why do I let you talk me into these things?	f	1
213	7	Why you poor thing...	f	1
108	4	Wise guys	f	1
363	13	Would you mind moving along, please?	f	1
268	9	Would you mind terribly?	f	1
132	4	You ain't going nowhere	f	1
217	7	You all right?	f	1

**Appendix A** (continued)

Item #	Set #	Formulaic expression	Categ	Count
16	1	You bet!	f	1
334	11	You betcha	f	1
373	13	You can do better than that	f	2
430	17	You can't be serious!	f	1
300	10	You don't get off that easy	f	1
117	4	You don't owe me no nothing	f	1
292	10	You don't say	f	3
387	14	You got it made	f	1
148	5	You talked me into it!	f	1
147	5	You talked me into something	f	1
170	5	You won't tell anybody, will you?	f	1
160	5	You'll be sorry	f	1
209	7	You're a real pal	f	1
42	1	You're all under arrest	f	1
442	18	You're clean	f	1
420	16	You're not giving yourself a chance	f	1
431	17	You're out of your mind!	f	1
31	1	You're right	f	1
357	12	You're very kind	f	1
157	5	You're welcome	f	1
296	10	Zowie!	f	2
224	8	A party for two	i	1
472	19	Anchors aweigh	i	1
184	6	And put a little heat under it	i	1
309	10	And was I ever crazy about him	i	1
331	11	Are you decent?	i	1
393	14	Beat it buster	i	1
273	9	Better break it to you gently	i	1
44	1	Big joke	i	1
171	5	Boot me out of the band	i	1
180	6	Borrow a cup of that sugar	i	1
192	6	Caught dead	i	1
409	16	Complete washout	i	1
256	9	Cut it out	i	1
340	11	Cut that out!	i	1
339	11	Don't get burned	i	1
232	8	Don't be a flat tire	i	1
279	10	Don't get sore	i	1
404	15	Down the hatch	i	1
388	14	Fat chance	i	1

**Appendix A** (*continued*)

Item #	Set #	Formulaic expression	Categ	Count
276	9	Feel my heart like a crazy drum	i	1
98	3	For a one night stand?	i	1
195	6	From the top again	i	1
46	2	Fronting for you	i	1
152	5	Get a move on	i	1
319	11	Get lost	i	1
474	19	Getting his tail out of here	i	1
253	9	Going to catch yourself a rich bird?	i	1
181	6	Goose it up a little	i	1
267	9	He snores to beat the band	i	1
34	1	He's a shoo-in	i	1
177	6	I always get the fuzzy end of the lollipop	i	1
11	1	I better blow now	i	1
520	21	I forgive you	i	1
241	8	I get goose pimply all over	i	1
35	1	I got the word	I	1
119	4	I hate to see them go to waste	i	1
58	2	I ought to have my head examined	i	1
91	3	I ought to wring her neck	i	1
423	16	I think you are on the right track	i	1
208	7	I wish I were dead	i	2
367	13	I'd watch my step	i	1
485	20	I'll bust out crying	i	1
85	3	I'll give you a little tingle	i	1
385	14	I'm a push-over	i	1
465	19	I'm afraid not	i	1
175	6	I'm blue	i	1
457	18	I'm just going to die of shame	i	1
330	11	I'm keeping an eye on you	i	1
277	9	I'm mad for you	i	1
248	9	I'm tired of getting the fuzzy end of the lollipop	i	1
211	7	In the middle of nowhere	i	1
93	3	It's gone to his head	i	1
12	1	It's Goodbye Charlie	i	1
323	11	It's like waving a red flag in front of a bull	i	1
408	15	It's more like a mental block	i	1

**Appendix A** (continued)

Item #	Set #	Formulaic expression	Categ	Count
481	20	It's on the level this time	i	1
18	1	I've been on the wagon	i	1
287	10	Just a moment	i	1
302	10	Keep your eyes on the road.	i	1
127	4	Knock each other off	i	1
106	4	Knock it off	i	1
337	11	Let her soak	i	1
490	20	Let's look at the record	i	1
434	17	Let's not be hasty	i	1
475	19	Let's shove off	i	1
183	6	Let's take it from the top	i	1
65	2	Living like kings	i	1
115	4	Long time no see	i	1
36	1	Look at those odds	i	1
401	15	Looks like they're on the wrong track	i	1
251	9	Makes a girl think	i	2
285	10	More millionaires than you can shake a stick at	i	1
240	8	My spine turns to custard	i	1
220	7	No fair guessing	i	1
480	20	Nothing up my sleeve	i	1
162	5	Now cut that out	i	1
322	11	Now you know how the other half lives	i	1
234	8	Pipe down	i	1
519	21	Pour it on	i	1
293	10	Pull in your reel	i	1
245	8	Pull yourself together	i	1
384	14	Push over for him	i	1
142	5	Quit stalling	i	1
354	12	Real hot	i	1
5	1	Refresh my memory	i	1
63	2	Running a fever	i	1
258	9	Search me	i	1
197	6	Sleep tight	i	1
355	12	Some like it hot	i	1
494	20	Somebody to fill my shoes	i	1
453	18	Something tells me the omelet is about to hit the fan	i	1
37	1	Suppose you get hit by a truck?	i	1
242	8	Thank goodness	i	1



**Appendix A** (*continued*)

Item #	Set #	Formulaic expression	Categ	Count
396	15	That's the berries	i	1
176	6	That's the story of my life	i	1
469	19	That's the way the oil gushes	i	1
275	9	The moth and the flame	i	1
249	9	The natives are getting restless	i	1
133	4	The only way you'll get to Urbana is feet first	i	1
236	8	The party's over	i	1
484	20	The place is crawling with mobsters	i	1
517	21	The sweet end of the lollipop	i	1
40	1	The whole town is under water!	i	1
15	1	Then hit 'em with everything you've got	i	1
252	9	They all go south for the winter	i	1
471	19	They must be worth their weight in gold	i	1
506	21	They slipped right through our hands	i	1
486	20	They wouldn't be caught dead	i	1
164	5	This is like falling into a tub of butter	i	1
189	6	This is the last straw	i	1
219	7	This is the only way to travel	i	1
299	10	This is where I get off	i	1
410	16	Throws somebody a dirty curve	i	1
462	19	Usually you leave'em with nothing but a kick in the teeth	i	1
295	10	Wanna bet	i	1
191	6	We got time off for good behavior	i	1
103	3	We ought to wring your neck	i	1
134	4	We won't breath a word	i	1
454	18	We wouldn't be caught dead	i	1
62	2	Weak from hunger	i	1
145	5	We'll never get away with it	i	1
173	6	We'll take a rain check	i	1
137	4	We'll take care of those guys later	i	1
212	7	We're in cahoots	i	1
329	11	We're just like sisters	i	1
353	12	We're only doing this for a lark	i	1

**Appendix A** (continued)

Item #	Set #	Formulaic expression	Categ	Count
452	18	We're really cooking	i	1
68	2	We're up the creek	i	1
87	3	What are you a couple of comedians?	i	1
443	18	Where did you pick up that cheap trick?	i	1
38	1	Why do you paint everything so black?	i	1
254	9	Wind up with the sweet end of the lollipop	i	1
352	12	With all that unrest in the world	i	1
389	14	You can both take a flying jump	i	1
69	2	You got a lot of nerve	i	1
489	20	You made the right choice	i	1
67	2	You out of your mind?	i	1
154	5	You saved our lives	i	1
97	3	You should excuse the expression	i	1
505	21	You want to make a Federal case out of it?	i	1
294	10	You're barking up the wrong fish	i	1
479	20	You're not pulling one of your old tricks	i	1
94	3	You've flipped your wig	i	1
449	18	Get it while you're young	p	1
399	15	It's the thought that counts	p	1
521	21	Nobody's perfect	p	1
500	21	To err is human, to forgive divine	p	1
438	18	We all gotta go sometime	p	1
497	20	You can't keep a good man down	p	1
451	18	You can't make an omelet without breaking an egg	p	1

**Appendix B**

*Survey:* Response Sheet for Recall Task. For the reader, answers and category type are added in the right hand columns.

*Directions:* For each of the expressions below, please fill-in the the blank with one word, guessing even if you're not sure.

	Practice questions	Answers	F/N
A.	What's the big _____?	idea	F
B.	She doesn't _____ of girls who smoke	approve	N
C.	The party's _____	over	F
D.	So you got _____ in the elevator?	pinched	N
Test			
(1)	Give me five minutes-then _____ 'em with everything you got	hit	F
(2)	I've been _____ seven or eight times	married	N
(3)	How can you be so _____?	selfish	F
(4)	_____ up, will you?	Shut	F
(5)	I ought to have my _____ examined!	head	F
(6)	_____view of what?	your	N
(7)	I'm running a _____	fever	F
(8)	I can explain _____	everything	F
(9)	I'm _____ sick	not	N
(10)	I'll make it up to _____	you	F
(11)	_____ out of here	get	F
(12)	You've _____ your wig!	flipped	F
(13)	I thought you said three _____	years	N
(14)	I'll _____ of something	think	F
(15)	_____ it off, will you?	Knock	F
(16)	I don't know what you are _____ about	talking	F
(17)	Where do you _____ you're going?	think	F
(18)	Now _____ done it!	you've	F
(19)	That's a quarter of a _____	century	N
(20)	We'll take a rain _____	check	F
(21)	This is the _____ straw	last	F
(22)	I _____ I were dead	wish	F
(23)	I'm just _____ to get some ice	going	N
(24)	I can't _____ myself	trust	N
(25)	Why you _____ thing	poor	F
(26)	Don't be a _____ tire	flat	F
(27)	Cut it _____ girls	out	F
(28)	You better put on the _____	lights	N
(29)	I better break it to you _____	gently	F
(30)	_____ you a sweetheart	Aren't	F
(31)	And _____ your eyes on the road	keep	F
(32)	You better go _____ it	fix	N
(33)	Are my seams _____?	straight	N
(34)	Let's get _____ of here	out	F

**Appendix B** (continued)

	Test	Answers	F/N
(35)	Some _____ it hot	like	F
(36)	I _____ your pardon?	beg	F
(37)	I'll carry the _____	instruments	N
(38)	I'd _____ my step	watch	F
(39)	Put some _____ on her neck	ice	N
(40)	You can _____ better than that	do	F
(41)	Yes, we're the _____ girls	new	N
(42)	Just the _____ of us	two	F
(43)	It's the _____ that counts	thought	F
(44)	I _____ mind if I do	don't	F
(45)	Like everybody's _____ at me	looking	N
(46)	All right, if you _____	insist	F
(47)	They got the _____ fiddle	bull	N
(48)	You _____ be serious!	can't	F
(49)	Then you won't be needing your _____	car	N
(50)	You're out of your _____!	mind	F
(51)	Get it _____ you're young	while	F
(52)	We wouldn't be _____ dead	caught	F
(53)	You're the _____ shape	wrong	N
(54)	We could _____ our hair	dye	N
(55)	I'm just going to die of _____	shame	F
(56)	Something unexpected _____ up	came	F
(57)	As a _____ of fact	matter	F
(58)	Somebody to _____ my shoes	fill	F
(59)	We'll all be _____	fired	N
(60)	You can't keep a _____ man down	good	F
(61)	They slipped _____ through our hands	right	F
(62)	So I had to _____ him to the hospital and give him a transfusion	rush	N
(63)	What do you think you're _____?	doing	F
(64)	_____ to meet you	pleased	F
(65)	We got _____ information	different	N
(66)	It's not _____ fault	my	F
(67)	Will ten _____ be enough?	cups	N
(68)	The natives are _____ restless	getting	F
(69)	Get _____, will you?	lost	F
(70)	Haven't I seen you _____ before?	somewhere	F
(71)	I mean we get _____ tonight, don't we?	paid	N
(72)	_____ afraid not	I'm	F

**Appendix B** (*continued*)

	Test	Answers	F/N
(73)	I don't believe I've _____ you at any of our services	seen	N
(74)	Wait a _____	minute	F
(75)	You'll be _____	sorry	N

**References**

- Achebe, C., 1958. *Things Fall Apart*. Heineman, London.
- Akmajian, A., Demers, R.A., Harnish, R.M., 1984. *Linguistics: An Introduction to Language and Communication*, second ed. MIT Press, Cambridge, MA.
- Alexander, R.J., 1978. Fixed expressions in English: linguistic, psycholinguistic, sociolinguistic and didactic study (Part I). *Anglistik und Englischunterricht* 6, 171–188.
- Altenberg, B., 1998. On the phraseology of spoken English: the evidence of recurrent word-combinations. In: Cowie, A.P. (Ed.), *Phraseology*. Clarendon Press, Oxford, pp. 101–124.
- Altenberg, B., 1991. The London-Lund corpus: research and applications. In: *Using corpora*. UW Centre for the New OED, Oxford, pp. 71–83.
- Arnaud, P., Moon, R.E., 1993. Fréquence et emploi des proverbes anglais et français. In: Plantin, C. (Ed.), *Lieux Communs: Topoïi, Stéréotypes, Clichés*. Kime, Paris, pp. 323–341.
- Baev, K., 1997. Highest level automatisms in the nervous system: a theory of functional principles underlying the highest forms of brain function. *Progress in Neurobiology* 51, 129–166.
- Becker, A.L., 1984. The linguistics of peculiarity: interpreting superordinating in a Javanese text. In: *Proceedings of the Tenth Annual Meeting of the Berkeley Linguistics Society*, University of California, Berkeley, CA, pp. 425–436.
- Blanken, G., Marini, V., 1997. Where do lexical speech automatisms come from? *Journal of Neurolinguistics* 10, 19–31.
- Blanken, G., Wallesch, E.-W., Papagno, C., 1990. Dissociations of language functions in aphasics with speech automatisms (recurring utterances). *Cortex* 26, 41–63.
- Bolinger, D., 1976. Meaning and memory. *Forum Linguisticum* 1, 1–14.
- Bolinger, D., 1961. Syntactic blends and other matters. *Language* 37.3, 366–381.
- Bolinger, D., 1977. Idioms have relations. *Forum Linguisticum* 2 (2), 157–169.
- Bolinger, D., 1975. *Aspects of Language*. Harcourt, Brace, Jovanovich, New York.
- Botelho da Silva, T., Cutler, A., 1993. Ill-formedness and transformability in Portuguese idioms. In: Cacciari, C., Tabossi, P. (Eds.), *Idioms: Processing, Structure, and Interpretation*. Lawrence Erlbaum, Hillsdale, NJ, pp. 129–143.
- Burgess, C., Chiarello, C., 1996. Neurocognitive mechanisms underlying metaphor comprehension and other figurative language. *Metaphor and Symbolic Activity* 11/1, 67–84.
- CALLHOME. American English Transcripts, Linguistic Data Corporation. Available from <<http://www ldc.upenn.edu/index.html>>.
- Castle, A., Auiler, D., (Eds.). 2001. *Billy Wilder's Some Like It Hot*. Kioln, Taschen GmbH.
- Cermák, F., 1994. Idiomatics. In: Leulsdorff, P.A. (Ed.), *Prague School of Structural and Functional Linguistics*. John Benjamins, Amsterdam and Philadelphia, pp. 85–195.
- Chafe, W., 1968. Idiomaticity as an anomaly in the Chomskyan paradigm. *Foundations of Language* 4, 109–127.
- Chomsky, N., 1965. *Aspects of a Theory of Syntax*. MIT Press, Cambridge, MA.
- Church, K., Hanks, P., 1990. Word association norms, mutual information and lexicography. *Computational Linguistics* 16 (3), 22–29.

- Clark, H.H., 1970. Word associations and linguistic theory. In: Lyons, J. (Ed.), *New Horizons in Linguistics*. Penguin Books, Baltimore, pp. 271–286.
- Code, C., 1982. Neurolinguistic analysis of recurrent utterance in aphasia. *Cortex* 18, 141–152.
- Code, C., 1987. *Language, Aphasia, and the Right Hemisphere*. Wiley, London.
- Code, C., 1989. Speech automatism and recurring utterances. In: Code, C. (Ed.), *The Characteristics of Aphasia*. Taylor & Francis, London, pp. 155–177.
- Cooper, W.E., Ross, J.R., 1975. World order. Notes From the Parasession on Functionalism. Papers from the Twelfth Regional Meeting Chicago Linguistic Society, Chicago.
- Cornell, A., 1999. Idioms: an approach to identifying major pitfalls for learners. *IRAL* 37, 1–22.
- Corsaro, W., 1979. We're friends, right. Children's use of access rituals in a nursery school. *Language in Society* 8, 315–336.
- Coulmas, F., 1981. *Conversational Routine: Exploration in Standard Communication Situations and Prepatterned Speech*. Hague, Mouton.
- Coulmas, F., 1994. Formulaic language. In: Asher, R.E. (Ed.), *Encyclopedia of language and linguistics*. Pergamon Press, Oxford, pp. 1292–1293.
- Cowie, A.P., 1992. Multiword lexical units and communicative language teaching. In: Arnaud, P., Bejoint, H. (Eds.), *Vocabulary and Applied Linguistics*. Macmillan, London, pp. 1–12.
- Cummings, J.L., 1993. Frontal-subcortical circuits and human behavior. *Archives of Neurology* 50, 873–880.
- Cutting, J.C., Bock, K., 1997. That's the way the cookie bounces: syntactic and semantic components of experimentally elicited idiom blends. *Memory-Cognition* 25 (1), 57–71.
- Dick, B.F., 1996. *Billy Wilder*. Da Capo Press, New York.
- Drew, P., Holt, E., 1988. Complainable matters: the use of idiomatic expressions in making complaints. *Social Problems* 35, 398–417.
- Duncan, S., Niederehe, G., 1974. On signalling that it's your turn to speak. *Journal of Experimental Social Psychology* 10, 234–247.
- Farber, S., 1979. *Billy Wilder*. In: Coursodon, J.-P. (Ed.), *American Directors*. McGraw-Hill, New York, pp. 366–387.
- Fillmore, C., 1979. On fluency. In: Fillmore, C.J., Kempler, D., Wang, W.S.-Y. (Eds.), *Individual Differences in Language Ability and Language Behavior*. Academic Press, London, pp. 85–102.
- Fillmore, C., Kay, P., O'Connor, M., 1988. Regularity and idiomaticity in grammatical constructions: the case of 'let alone'. *Language* 64, 501–538.
- Gallahorn, G.E., 1971. The use of taboo words by psychiatric ward personnel. *Psychiatry* 34, 309–321.
- Gardner, H., Brownell, H.H., Wapner, W., Michelow, D., 1983. Missing the point: the role of the right hemisphere in the processing of complex linguistic materials. In: Peregman, E. (Ed.), *Cognitive Processing in the Right Hemisphere*. Academic Press, New York, pp. 169–192.
- Gibbs, R.W., 1994. *The Poetics of Mind: Figurative Thought, Language, and Understanding*. Cambridge University Press, New York.
- Gibbs Jr., R.W., Nayak, N.P., 1989. Psycholinguistic studies on the syntactic behavior of idioms. *Cognitive Psychology* 21, 100–138.
- Glassman, L., Grinberg, D., Hibbard, C., Meehan, J., Reid, L.G., van Leunen, M.-C. 1992. *Hector: connecting words with definitions*. SRC Report 92a; Digital Equipment Corporation Systems Research Center, Palo Alto, CA.
- Gleason, J.B., Weintraub, S., 1976. The acquisition of routines in child language. *Language in Society* 5, 129–136.
- Glucksberg, S., 1991. Beyond literal meanings: the psychology of allusion. *Psychological Science* 2 (3), 146–152.
- Graesser, A., Person, N., Johnston, G.S., 1996. Three obstacles in empirical research on aesthetic and literary comprehension. In: Kreuz, R.J., MacNealy, M.S. (Eds.), *Empirical Approaches to Literature and Aesthetics*, Vol. 52 in *Advances in Discourse Processes* (Roy O. Freedle, Ed.). Ablex Publishing Corporation, Norwood, NJ, pp. 3–21.
- Graves, R., Landis, T., 1985. Hemispheric control of speech expression in aphasia. *Archives of Neurology* 42, 249–251.

- Greenbaum, S., Svartik, J., 1990. The London-Lund corpus of spoken English. In: Svartik, J. (Ed.), *The London-Lund Corpus of Spoken English: Description and Research*. Lund University Press, Lund, pp. 11–45.
- Hain, M., 1951. *Sprichwort und Volkssprache*. Giessen, Wilhelm Schmitz Verlag.
- Hoffman, R., Kemper, S., 1987. What could reaction-time studies be telling us about metaphor comprehension? *Metaphor and Symbolic Activity* 2, 149–186.
- Honeck, R.P., 1997. A Proverb in Mind. Lawrence Erlbaum, Mahwah, NJ.
- Hopper, P., 1988. Emergent grammar and the a priori grammar postulate. In: Tannen, D. (Ed.), *Linguistics in Context: Connecting Observation and Understanding*. Ablex, Norwood, NJ, pp. 117–134.
- Horowitz, L.M., Manelis, L., 1973. Recognition and cued recall of idioms and phrases. *Journal of Experimental Psychology* 100, 291–296.
- Howarth, P., 1998. The phraseology of learners' academic writing. In: Cowie, A.P. (Ed.), *Phraseology*. Clarendon Press, Oxford, pp. 161–188.
- Hughlings Jackson, J., 1874. On the nature of the duality of the brain. Reprinted in J. Taylor (Ed.), *Selected Writings of John Hughlings Jackson*, vol. 2, 1932. Hodder and Stoughton, London, pp. 129–145.
- Hughlings Jackson, J., 1915. On affections of speech from diseases of the brain. *Brain* 38, 101–186.
- Jackendoff, R., 1995. The boundaries of the lexicon. In: Everaert, M., van der Linden, E.J., Schenk, A., Schreuder, R. (Eds.), *Idioms, Structural and Psychological Perspectives*. Lawrence Erlbaum Associates, Hillsdale, NJ, pp. 133–169.
- Jay, T.B., 1980. Sex roles and dirty word usage: a review of the literature and a reply to Haas. *Psychological Bulletin* 88 (3), 614–621.
- Jespersen, O., 1933. *Essentials of English Grammar*. George Allen and Unwin, Ltd, London.
- Katz, J.J., 1973. Compositionality, idiomaticity, and lexical substitution. In: Anderson, S. (Ed.), *Festschrift for Morris Halle*. Holt, Rinehart and Winston, New York, pp. 357–376.
- Kempler, D., Van Lancker, D., Marchman, V., Bates, E., 1999. Idiom comprehension in children and adults with unilateral brain damage. *Developmental Neuropsychology* 15.3, 327–349.
- Kempler, D., Van Lancker, D., Read, S., 1988. Proverb and idiom comprehension in Alzheimer disease. *Alzheimer Disease and Associated Disorders* 2 (1), 38–49.
- Kiparsky, P., 1976. Oral poetry: some linguistic and typological considerations. In: Stolz, B.A., Shannon, R.S. (Eds.), *Oral literature and the Formula*. University of Michigan, Ann Arbor, pp. 73–106.
- Klaver, E., 1989. The play of language in Ionesco's play of chairs. *Modern Drama* 32, 521–531.
- Kuiper, K., 2000. On the linguistic properties of formulaic speech. *Oral Tradition* 15/2, 279–305.
- Koestler, A., 1967. *The Ghost in the Machine*. MacMillan, Chicago.
- Lakoff, R., 1973. The logic of politeness. In: Corum, C., et al. (Eds.), *Papers from the Ninth Regional Chicago Linguistics Society*. Chicago Linguistics Society, Chicago, IL, pp. 292–305.
- Lally, K., 1996. *Wilder times: The Life of Billy Wilder*. Henry Holt and Company, New York.
- Lieberman, P., 1963. Some effects of semantic and grammatic context on the production and perception of speech. *Language and Speech* 6, 172–187.
- Lieberman, P., 2000. *Human Language and Our Reptilian Brain: The Subcortical Bases of Speech, Syntax, and Thought*. Harvard University Press, Cambridge.
- Lieberman, P., 2001. Human language and our reptilian brain. *Perspectives in Biology and Medicine* 44, 32–51.
- Locke, J., 1997. A theory of neurolinguistic development. *Brain and Language* 58, 265–326.
- Lounsbury, F.G., 1963. Linguistics and Psychology. In: Koch, S. (Ed.), *Psychology: Study of a Science*. McGraw-Hill, New York, pp. 553–582.
- Lyons, J., 1968. *Introduction to Theoretical Linguistics*. Cambridge University Press, Cambridge, UK.
- McCarthy, J.J., in press. Talking back: "small" interactional response tokens in everyday conversation. *Research on Language and Social Interaction*. Special issue on Small Talk, In: J. Coupland (Ed.).
- McDermott, R.P., Tylbor, H., 1983. On the necessity of collusion in conversation. *Text* 3 (3), 277–297.
- Makkai, A., 1972. *Idiom Structure in English*. Hague, Mouton.
- Marsden, C.D., 1982. The mysterious motor function of the basal ganglia: the Robert Wartenberg lecture. *Neurology* 32, 514–539.

- Matisoff, J., 1979. Blessing, curses, hopes, and fears: psychoostensive expressions in Yiddish. Institute for Study of Human Issues, Philadelphia.
- Mieder, W., 1984. Investigations of Proverbs, Proverbial Expressions, Quotations and Clichés: A Bibliography of Explanatory Essays Which Have Appeared in Notes and Queries. P. Lang, Bern.
- Mieder, W., 1978. Proverbial slogans are the name of the game. *Kentucky Folklore Record* 24, 49–53.
- Moon, R.E., 1992. Textual aspects of fixed expressions in learners' dictionaries. In: Arnaud, P., Béjoint, H. (Eds.), *Vocabulary and Applied Linguistics*. Macmillan, London, pp. 13–27.
- Moon, R.E., 1998a. Fixed expressions and text: a study of the distribution and textual behaviour of fixed expressions in English. *Oxford Studies in Lexicology and Lexicography*. Clarendon Press, Oxford.
- Moon, R.E., 1998b. Frequencies and forms of phrasal lexemes in English. In: Cowie, A.P. (Ed.), *Phraseology*. Clarendon Press, Oxford, pp. 79–100.
- Myers, P., Linebaugh, C.W., 1981. Comprehension of idiomatic expressions by right-hemisphere-damaged adults. In: Brookshire, R.H. (Ed.), *Clinical Aphasiology: Conference Proceedings*. BRK Publishers, Minneapolis, pp. 254–261.
- Norrick, N.R., 1985. *How Proverbs Mean: Semantic Studies in English Proverbs*. Mouton, Berlin.
- Nunberg, G., Sag, I., Wasow, T., 1994. Idioms. *Language* 70, 491–537.
- Osgood, C.E., Housain, R., 1974. Saliency of the word as a unit in the perception of language. *Perception and Psychophysics* 15, 168–192.
- Page, D.L., 1959. *History and the Homeric Iliad*. University of California Press, Berkeley.
- Palermo, D., Jenkins, J., 1964. *Word Association Norms*. University of Minnesota Press, Minneapolis.
- Papagno, C., Vallar, G., 2001. Understanding metaphors and idioms: a single-case neuropsychological study in a person with Down syndrome. *Journal of the International Neuropsychological Society* 7, 516–528.
- Pawley, A., Syder, F.H., 1983. Two puzzles for linguistic theory: nativelike selection and nativelike fluency. In: Richards, J.C., Schmidt, R. (Eds.), *Language and Communication*. Longman, London, pp. 191–225.
- Pawley, A., 1985. On speech formulae and linguistic competence. *Lenguas Modernas* 12, 80–104.
- Pawley, A., 1991. How to talk cricket: on linguistic competence in a subject matter. In: Blust, R. (Ed.), *Currents in Pacific Linguistics: Papers on Austronesian Languages and Ethnolinguistics in Honor of George Grace*. Pacific Linguistics C-117, Canberra, pp. 339–368.
- Peters, A., 1977. Language-learning strategies: does the whole equal the sum of the parts? *Language* 53, 560–573.
- Pickens, J.D., Pollio, H.R., 1979. Patterns of figurative language competence in adult speakers. *Psychological Research* 40, 299–313.
- Pinker, S., 1995. *The Language Instinct*. Harper Collins, New York.
- Pinker, S., Birdsong, D., 1979. Speakers' sensitivity to rules of frozen word order. *Journal of Verbal Learning and Verbal Behavior* 18, 497–508.
- Redfern, W., 1989. *Clichés and Coinages*. Blackwell, Oxford.
- Rothman, C., 1999. A 40-year-old comedy that hasn't grown stale. *The New York Times*, New York, NY. p. 24.
- Searle, J.R., 1975. Indirect speech acts. In: Cole, P., Morgan, J.L. (Eds.), *Syntax and Semantics*, vol. 3. Academic Press, New York, pp. 59–82.
- Schegloff, E., 1988. Discourse as an interactional achievement II: an exercise in conversation analysis. In: Tannen, D. (Ed.), *Linguistics in Context: Connecting Observation and Understanding*. Ablex, Norwood, NY, pp. 135–158.
- Schweizer, B.-M., 1978. *Sprachspiel mit Idiomen: eine Untersuchung am Prosawerk von Günter Grass*. Juris Druk Verlag, Zürich.
- Simon, H.A., 1974. How big is a chunk? *Science* 183, 482–484.
- Simon, H.A., Zhang, W., Zang, W., Peng, R., 1989. STM capacity for Chinese words and idioms with visual and auditory presentations. In: *Models of Thought, II*. Yale University Press, New Haven and London, pp. 68–75.
- Sinclair, J.M., 1987. Collocation: a progress report. In: Steele, R., Threadgold, T. (Eds.), *Language Topics: Essays in Honor of Michael Halliday, II*. John Benjamins, Amsterdam, pp. 319–331.
- Sinclair, J.M., 1991. *Corpus, Concordance, Collocation*. Oxford University Press, Oxford.



- Šípoš, I., 1984. Recognition memory for words versus meaning in idioms and connected discourse. *Studia Psychologica* 26, 91–98.
- Sorhus, H.B., 1977. To hear ourselves – implications for teaching English as a second language. *English Language Teaching Journal* 31 (3), 211–221.
- Soskin, W.F., John, V.P., 1963. The study of spontaneous talk. In: Barker, R.G. (Ed.), *The Stream of Behavior*. Appleton-Century-Crofts, New York, pp. 228–282.
- Speedie, L.J., Wertman, E., Ta'ir, J., Heilman, K.M., 1993. Disruption of automatic speech following a right basal ganglia lesion. *Neurology* 43 (9), 1768–1774.
- Strässler, J., 1982. *Idioms in English: A Pragmatic Analysis*. Gunter Narr, Tübingen.
- Svartik, J., Quirk, R., 1980. *A Corpus of English Conversation*. Lund Studies in English. CWK Gleerup, Lund.
- Swales, J., 1990. *Genre Analysis: English in Academic and Research Settings*. Cambridge University Press, Cambridge.
- Swinney, D., Cutler, A., 1979. The access and processing of idiomatic expressions. *Journal of Verbal Learning and Verbal Behavior* 18, 523–534.
- Tannen, D., Öztekin, P.C., 1981. Health to our mouths: formulaic expressions in Turkish and Greek. In: Coulmas, F. (Ed.), *Conversational Routine*. Hague, Mouton, pp. 37–54.
- Tannen, D., 1980. Implications of the oral/literate continuum for cross-cultural communication. In: Alatis, J.E. (Ed.), *Current Issues in Bilingualism*. Georgetown University Round Table on Languages and Linguistics. Georgetown University Press, Washington, DC, pp. 326–347.
- Tannen, D., 1989. *Talking Voices: Repetition, Dialogue, and Imagery in Conversational Discourse*. Cambridge University Press, Cambridge.
- Taylor, A., 1931. *The Proverb*. Cambridge University Press, Cambridge, MA.
- Templeton, J.M., 1997. *Worldwide Laws of Life: 200 Eternal Spiritual Principles*. Templeton Foundation Press, Radnor, PA.
- Tilley, M.P., 1950. *A Dictionary of Proverbs in England in the 16th and 17th Centuries*. University of Michigan Press, Ann Arbor.
- Trask, R.L., 1995. *Language: The Basics*. Routledge, London.
- Tyler, S., 1978. *The Said and the Unsaid: Mind, Meaning and Culture*. Academic Press, New York.
- Van Lancker, D., 1990. The neurology of proverbs. *Behavioral Neurology* 3, 169–187.
- Van Lancker, D., 1973. Language lateralization and grammars. In: John Kimball, (Ed.), *Studies in Syntax and Semantics*, vol. II. Academic Press, New York, pp. 197–204.
- Van Lancker, D., 1988. Nonpropositional speech: neurolinguistic studies. In: Ellis, A. (Ed.), *Progress in the Psychology of Language*, vol. 3. Lawrence Erlbaum, London, pp. 49–118.
- Van Lancker, D., Cummings, J., 1999. Expletives: neurolinguistic and neurobehavioral perspectives on swearing. *Brain Research Reviews* 31, 83–104.
- Van Lancker, D., 1975. Heterogeneity in language and speech: neurolinguistic studies. *Working Papers in Phonetics*, 29. UCLA, Los Angeles.
- Van Lancker, D., 1993. Nonpropositional speech in aphasia. In: Blanken, G., Dittmann, J., Grimm, H., Marshall, J.C., Wallech, C.-W. (Eds.), *Linguistic Disorders and Pathologies: An International Handbook*. Walter de Gruyter, Berlin, pp. 215–225.
- Van Lancker, D., 2000. A neurolinguistic perspective on proverbs. In: Brown, W. (Ed.), *Science of Wisdom and the Laws of Life*. Templeton Foundation Press, Radnor, Pennsylvania, pp. 215–244.
- Van Lancker, D., 2001a. Is your syntactic component really necessary? *Aphasiology* 14, 343–360.
- Van Lancker, D., 2001b. Meaning is first\*: a reply to the commentaries. *Aphasiology* 14, 396–406.
- Van Lancker, D., 2001c. Preserved formulaic expressions in a case of transcortical sensory aphasia compared to incidence in normal everyday speech. *Brain and Language* 79 (1), 38–41.
- Van Lancker-Sidtis, D., 2003. Auditory recognition of idioms by first and second speakers of English: It takes one to know one. *Applied Psycholinguistics* 24, 45–57.
- Van Lancker-Sidtis, D., 2004. When novel sentences spoken or heard for the first time in the history of the universe are not enough: toward a dual-process model of language. *International Journal of Language and Communication Disorders* 39 (1), 1–44.

- Van Lancker, D., Kempler, D., 1987. Comprehension of familiar phrases by left- but not by right-hemisphere damaged patients. *Brain and Language* 32, 265–277.
- Van Lancker, D., Ohnesorge, C., 2002. Personally familiar proper names are relatively successfully processed in the human right hemisphere, or, the missing link. *Brain and Language* 80, 121–129.
- Verstraten, L., 1992. Fixed phrases in monolingual learners' dictionaries. Textual aspects of fixed expressions in learners' dictionaries. In: Arnaud, P., Bejoint, H. (Eds.), *Vocabulary and Applied Linguistics*. Macmillan, London, pp. 28–40.
- Weinreich, V., 1969. Problems in the analysis of idioms. In: Puhvel, J. (Ed.), *Substance and Structure of Language*. University of California Press, London, pp. 23–82.
- Wilder, W.I., Diamond, A.L., 1959. *Some Like It Hot*. Screenplay reprinted in S. Thomas (Ed.), *Best American Screenplays 2* (1st ed.), 1990, Crown Publishers, New York, pp. 80–146.
- Winner, E., Gardner, H., 1977. The comprehension of metaphor in brain-damaged patients. *Brain* 100, 719–727.
- Wong Fillmore, L., 1979. Individual differences in second language acquisition. In: Fillmore, C.J., Kempler, D., Wang, W.S.-Y. (Eds.), *Individual Differences in Language Ability and Language Behavior*. Academic Press, London, pp. 203–228.
- Wray, A., 2002. *Formulaic Language and the Lexicon*. Cambridge University Press, Cambridge, UK.
- Wray, A., Perkins, M., 2000. The functions of formulaic language: an integrated model. *Language and Communication* 20, 1–28.
- Wray, A., 1999a. Formulaic language in learners and native speakers. *Language Teaching* 32, 213–231.
- Wray, A., 1999b. Formulaic sequences in second language teaching: principle and practice. *Applied Linguistics* 21, 463–489.
- Zolotow, M., 1978. *Billy Wilder*. In: Tuska, J. (Ed.), *Close-up: The Hollywood Director*. The Scarecrow Press, Metachen, NJ, pp. 1–31.

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