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Author(s): Geoffrey Nunberg, Ivan A. Sag, Thomas Wasow

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IDIOMS

GEOFFREY NUNBERG

*Xerox PARC and Stanford
University*

IVAN A. SAG AND THOMAS WASOW

Stanford University

In the literature of generative grammar, idiomaticity has been widely identified with noncompositionality. Such a definition fails to recognize several important dimensions of idiomaticity, including, among others, conventionality and figuration. We propose to distinguish *IDIOMATICALLY COMBINING EXPRESSIONS* (e.g. *take advantage, pull strings*), whose meanings—while conventional—are distributed among their parts, from *IDIOMATIC PHRASES* (e.g. *kick the bucket, saw logs*), which do not distribute their meanings to their components. Most syntactic arguments based on idioms are flawed, we argue, because they treat all idioms as noncompositional. A careful examination of the semantic properties of idioms and the metaphors that many of them employ helps to explain certain intriguing asymmetries in the grammatical and thematic roles of idiomatic noun phrases.*

INTRODUCTION

1. It is widely assumed among syntacticians that the behavior of idioms, specifically phrasal idioms, provides critical data for grammatical theory. Over the years, idioms have been used in various syntactic arguments, some routinely repeated in introductory textbooks, bearing on such questions as:

- Must syntactic theory include transformational operations?
- Must all syntactically selected arguments also be semantically selected?
- Is there a fundamental compositional asymmetry between subjects and objects?
- Must syntactic theory recognize hierarchies of thematic roles?

In this paper, we examine various dimensions of idiomaticity and their relation to grammatical theory. Our conclusion will be that idioms provide no evidence bearing one way or the other on such syntactic issues. As we will show, there are compelling reasons to believe that the majority of phrasal idioms are in fact semantically compositional, and that the very phenomenon of idiomaticity is fundamentally semantic in nature. Much of the literature on the syntax of idioms is thus based on the misconception that no such semantic compositionality exists. Rather than providing evidence for particular theories of transforma-

* Preliminary versions of parts of this paper were first presented (in February 1981!) at the UCLA conference on 'The Interaction of Components in EST' and were published as Wasow, Nunberg, & Sag 1984. After a hiatus of almost a decade, we resumed our collaboration on idioms in the summer of 1992. During our two periods of active research on this topic, we have benefited from interactions with more people than we could possibly recall accurately. However, we wish to thank at least: Jennifer Arnold, Larry Barsalou, Bob Carpenter (as an anonymous referee), Eve Clark, Herbert Clark, Martin Everaert, Charles Fillmore, Ray Gibbs, Ray Jackendoff, Paul Kay, Paul Kiparsky, Alexis Manaster-Ramer, André Schenk, Peter Sells, Erik-Jan van der Linden, Mary McGee Wood, and a (second) anonymous *Language* referee. Special thanks go to Kathryn Henniss for help with preparation of the manuscript. Some of the research reported here was supported by the National Endowment for the Humanities (Wasow), by a gift to Stanford University from the System Development Foundation, and by NSF Grant No. BNS8102406 to Stanford University (Sag and Wasow).

tions, phrase structure, grammatical functions, thematic roles, or otherwise unnecessary grammatical devices (e.g. 'quasi roles'), the various constraints on idioms that have been observed are better explained in consequence of either semantic properties or else broader tendencies in the figurative use of language.

DEFINING 'IDIOM'

2.1. THE MANY DIMENSIONS OF IDIOMATICITY. Attempts to provide categorical, single-criterion definitions of idioms are always to some degree misleading and after the fact. In actual linguistic discourse and lexicographical practice, 'idiom' is applied to a fuzzy category defined on the one hand by ostension of prototypical examples like English *kick the bucket*, *take care of NP*, or *keep tabs on NP*, and on the other by implicit opposition to related categories like formulae, fixed phrases, collocations, clichés, sayings, proverbs, and allusions—terms which, like 'idiom' itself, inhabit the ungoverned country between lay metalanguage and the theoretical terminology of linguistics. In virtue of these oppositions, if nothing else, idioms occupy a region in a multidimensional lexical space, characterized by a number of distinct properties: semantic, syntactic, poetical, discursive, and rhetorical. When we say that an expression like *kick the bucket* or *shoot the breeze* is a prototypical idiom, for example, we are probably making that judgment on the basis of a number of more-or-less orthogonal properties of the phrase, among them:

- **Conventionality:** Idioms are conventionalized: their meaning or use can't be predicted, or at least entirely predicted, on the basis of a knowledge of the independent conventions that determine the use of their constituents when they appear in isolation from one another.¹

- **Inflexibility:** Idioms typically appear only in a limited number of syntactic frames or constructions, unlike freely composed expressions (e.g. **the breeze was shot*, **the breeze is hard to shoot*, etc.).

- **Figuration:** Idioms typically involve metaphors (*take the bull by the horns*, metonymies (*lend a hand*, *count heads*), hyperboles (*not worth the paper it's printed on*), or other kinds of figuration. Of course speakers may not always perceive the precise motive for the figure involved—why *shoot the breeze* should be used to mean 'chat', for example, or *kick the bucket* to mean 'die'—but they generally perceive THAT some form of figuration is involved, at least to the extent of being able to assign to the idiom a 'literal meaning'.²

¹ Conventionality is a relation among a linguistic regularity, a situation of use, and a population that has implicitly agreed to conform to that regularity in that situation out of a preference for general uniformity, rather than because there is some obvious and compelling reason to conform to that regularity instead of some other; that is what it means to say that conventions are necessarily arbitrary to some degree. See Lewis 1969.

² This distinction is important, and is sometimes overlooked. Kiparsky (1976:79) writes:

'Typical verb phrase idioms are *kick the bucket*, *shoot the bull*, *shoot the breeze*, *bite the dust*, *bite the bullet*, *fly off the handle*, *hit the spot*, *fill the bill*, *shake a leg*, *chew the rag*, *go the whole hog*, *eat your heart out*... Although many of them are originally metaphorical, they are no longer necessarily perceived as such (though there is surely some variation among speakers in this respect).'

- **Proverbiality:** Idioms are typically used to describe—and implicitly, to explain—a recurrent situation of particular social interest (becoming restless, talking informally, divulging a secret, or whatever) in virtue of its resemblance or relation to a scenario involving homey, concrete things and relations—climbing walls, chewing fat, spilling beans.³

- **Informality:** Like other proverbial expressions, idioms are typically associated with relatively informal or colloquial registers and with popular speech and oral culture.

- **Affect:** Idioms are typically used to imply a certain evaluation or affective stance toward the things they denote. A language doesn't ordinarily use idioms to describe situations that are regarded neutrally—buying tickets, reading a book—though of course one could imagine a community in which such activities were sufficiently charged with social meaning to be worthy of idiomatic reference.⁴

Apart from the property of conventionality, none of these properties applies obligatorily to all idioms. There are some idioms, for example, which do not involve figuration—the clearest examples are expressions that contain an item which occurs in no other context (e.g. *by dint of*), and which therefore could not have a figurative interpretation. By the same token, not all idioms have literal meanings that denote concrete things and relations (e.g. *malice aforethought*, *second thoughts*, *method in one's madness*, *at sixes and sevens*, *come true*); and many idioms lack register restrictions and some even have a decidedly literary flavor (e.g. *render unto Caesar*). Yet when we encounter a fixed expression that is missing several of the relevant properties—say one that involves no figuration, lacks a proverbial character, and has no strong association

We disagree with Kiparsky: it seems to us that all of these idioms will be almost universally perceived as being figurative, even if speakers have no idea WHY these metaphors are used to express these meanings. That is, few or no speakers would conclude that the *bullet* of *bite the bullet* and the *kick* of *kick the bucket* are merely accidental homonyms of the uses of these words to mean 'projectile from a gun' and 'strike with the foot'. See Gibbs 1990 for experimental psycholinguistic evidence supporting our intuitions on this point.

³ The same situation is often described in different ways by different idioms—*as easy as pie*, *a lead-pipe cinch*, *like falling off a log*, *like shooting ducks in a barrel*, *like taking candy from a baby*—not just because of the public's love of novelty (though here, as with slang, this is surely part of it), but so as to provide different evaluations of the same kind of situation, according to the speaker's interests. Again, see Gibbs 1990 for relevant psycholinguistic studies.

⁴ The English word 'idiom' has two senses, of course. In the first—the way most linguists use it, and the way we will be using it here—it denotes a certain kind of fixed phrase like *shoot the breeze* or *pull the wool over someone's eyes*. In the second, as in 'He speaks idiomatic French', it refers to a variety of a language that conforms, not just to the rules of grammar, but to the ordinary, conversational usage of native speakers. (So it is grammatical in English to say, 'I will be taking an airplane to Paris tomorrow', but it is more idiomatic to say 'I will be flying to Paris...' and so on.) In our view these senses of the word are connected: idioms like *shoot the breeze* are the paradigm cases of idiomaticity in its popular sense precisely because they embody the 'idiosyncratic' turns of phrase which are shaped in popular discourse, and which are not available to a speaker who has merely learned the language by rule, rather than in ordinary colloquy. Note that this connection grows out of the discursive and rhetorical functions of (phrasal) idioms, rather than their semantic properties.

with popular speech—we become increasingly reluctant to call it an idiom. Examples might be collocations like *tax and spend*, *resist temptation*, or *right to life*.⁵

To be sure, there is no theoretical reason why one should not define idioms in a way that makes reference only to their conventionality or some other property, e.g. their mode of semantic composition—a strategy that has been adopted in a lot of the recent literature on the subject. Idioms are not after all a linguistically natural kind, in the sense of being candidates for a category of universal grammar, and for theoretical purposes, the category can be defined in different ways for diverse purposes.⁶ If, however, such definitions don't yield a class that conforms more or less well to the general understanding, we can rightly object that the author is using the word 'idiom' in a nonstandard way.⁷

As it happens, though, many linguists writing on idioms have been implicitly content to accept a working understanding of idioms that conforms more-or-less well to the folk category, particularly with regard to the verb + argument idioms like *kick the bucket*, *pull someone's leg*, and so on that have been most widely discussed. It is only when they proceed to try to explain the linguistically significant properties of these expressions—most often, their syntactic distribution or the types of thematic relations that their arguments can fill—that they invoke categorical, usually semantic, definitions for the class. And in this case we can object to their definitions on empirical grounds—they don't characterize idioms as the term is generally understood.

The problem is not simply a matter of definition. Standard categorical assumptions about what makes idioms idioms have constrained the forms of argument available to explain their behavior (at least within the tradition of generative grammar), and have colored the way the properties of idioms are invoked in general grammatical argumentation. The problem with these accounts, on our view, is that they have tended to overgrammaticize the phenomena—to ask the syntactic or semantic apparatus of the grammar to explain regularities that are in fact the consequences of independent rhetorical and discursive functions of the expressions. By contrast, we will argue here that in order to explain the properties of these expressions fully, we have to appeal not just to the semantic properties of idioms, but to the figurational processes that underlie them and the discursive functions that they generally serve.

⁵ A great many idioms have largely-forgotten literary origins—*beard the lion in his den* is from Scott, for example—but when an idiom-like expression is associated with a well-known literary provenance, we generally describe it as an allusion, e.g. *shuffle off this mortal coil*, *win one for the Gipper*.

⁶ This is noted already in Bar Hillel 1955. See Zwicky 1989 for arguments to this effect.

⁷ Some authors (e.g. Schenk 1992) use the term 'idiom' only for truly noncompositional expressions. At the other end of the spectrum are learners' dictionaries, which tend to include even those collocations with fully literal interpretations. Common usage would suggest that the extension of the term should be more inclusive than the former and less than the latter.

2.2. THREE SEMANTIC PROPERTIES OF IDIOMS. The semantic characterization of idioms that we have given here in terms of conventionality amounts to a claim about the predictability of idiom meanings: the meaning of an idiom cannot be predicted on the basis of a knowledge of the rules that determine the meaning or use of its parts when they occur in isolation from one another. For any given collocation, of course, conventionality is a matter of degree, and will depend among other things on how we interpret 'meaning' and 'predictability'. We might define predictability, for example, by asking whether a native speaker who is wholly familiar with the meanings of the constituents of the idiom but who has no knowledge of any conventions governing the use of the collocation as a whole would be expected to generate it in appropriate circumstances and, moreover, to produce it with the regularity with which it is actually used in the language. In that case, many relatively transparent phrases like *industrial revolution*, *passing lane*, *gain the advantage*, and *center divider* (i.e. of a highway) would count as idioms. Of course a phrase like *center divider* applies in a perfectly literal way to its reference, but it is used to the exclusion of other phrases that might do as well if there were no convention involved, such as *middle separator*, a regularity that speakers would not be expected to produce if they came to their discourse armed only with information about the meanings of the terms *center* and *divider*. So there must be some further convention that mandates how this particular collocation is used. Such conventions may vary across space and time, as in the case (pointed out to us by an anonymous reviewer) of American *thumb tack* and British *drawing pin*, which are two compositional expressions denoting the same type of object.

More restrictively, we might ask whether a native speaker would be able to recover the sense of the idiom on hearing it in an 'uninformative context'.⁸ By this test, expressions like *pull strings* and *spill the beans* will probably count as idioms, though *gain the advantage* and *industrial revolution* will not, or at least will be less prototypically idioms, a result which seems to accord with normal intuitions about the category. In spite of its initial appeal, this definition is actually quite unnatural, and false to the way most idioms are presumably learned: it would require the listener to ask explicitly what each idiom meant, which is probably relatively uncommon. When someone says, for example, *That really takes the cake!*, a listener can likely apprehend the sense of the expression without explicit instruction. Or take the Spanish idiom *tener una lengua de trapo* 'to have a rag tongue'. It is opaque in the absence of context, but if we heard it used in an utterance literally meaning, 'It won't be a quiet evening with Juan around; he has a rag tongue', we can guess from the combination of context and literal meaning that the expression means 'to like to talk'.

It is presumably tests like these that linguists have in mind when they say that the meanings of idioms are not predictable from the meanings of their parts. On the basis of these tests, however, they are often led to give a narrowly

⁸ This is a relative criterion, of course, since obviously any unfamiliar expression can be understood if the context is made informative enough. e.g. *Your Rocky Mountain oysters are served, sir.*

semantic characterization of idioms that is much stronger than most cases warrant, by saying that the meanings of idioms are not derived by normal compositional processes from the meanings of their parts. In one form or another, this has been the most frequent way of defining idioms in the generative literature, as we will see in a moment. Often this claim is put by saying that idiom chunks do not have meanings, or that 'there is no relation between the meanings of the parts and the meaning of the whole from the viewpoint of synchronic structure' (Kiparsky 1976:79).

It is this assumption that justifies listing idioms as phrasal entries in the lexicon, each associated directly with a single semantic representation. To justify this claim for any particular case, however, it has to be shown not just that the meaning of the idiom could not be predicted on the basis of a knowledge of the meanings of its parts, but that once the meaning of the idiom is known (say by hearing it used in a sufficiently informative context), it cannot be devolved on the constituents of the expression. And this is not entailed by simple nonpredictability. Say for example that you hear the sentence *John was able to pull strings to get the job, since he had a lot of contacts in the industry*, and that the context enables you to conclude correctly that *pull strings* means something like 'exploit personal connections' even though you might not have been able to predict that the phrase had this meaning if you had heard it in isolation. At this point you will be able to establish correspondences between the parts of the structured denotation of the expression (the relation of exploiting, the connections exploited) and the parts of the idiom (*pull* and *strings*), in such a way that each constituent will be seen to refer metaphorically to an element of the interpretation. That is, the idiom will be given a compositional, albeit idiosyncratic, analysis.

To be sure, there is still an element of conventionality involved, in the sense that the collocation would not be given this interpretation solely in virtue of the pragmatic principles that determine the free figural uses of expressions. Still, the conventions in this case can be stated as conditions on the use of each of the constituents of the expression, rather than on the phrase as a whole. By convention, that is, *strings* can be used metaphorically to refer to personal connections when it is the object of *pull*, and *pull* can be used metaphorically to refer to exploitation or exertion when its object is *strings*. In earlier work (Wasow et al. 1984, and various talks) we referred to such idioms as 'compositional'. We now realize that this terminological choice has caused considerable confusion, a point to which we will return later in this section. In the remainder of this paper, we will use the term 'idiomatically combining expression' (or 'idiomatic combination', for short) to refer to idioms whose parts carry identifiable parts of their idiomatic meanings.

Note that to call an expression an idiomatically combining expression is not the same as saying it is 'transparent'—that is, saying that speakers can wholly recover the rationale for the figuration it involves.⁹ On the one hand, some

⁹ The distinction between idiomatically combining expressions and transparent idioms appears to us to be the same as what Geeraerts (1992) and van der Linden (1993) discuss in terms of a

idioms are transparent without being idiomatic combinations. It is pretty obvious why the expression *saw logs* is used to mean 'sleep', given the resemblance between the sounds produced by the two activities. There is, however, no decomposition of the activity of sleeping into elements that correspond to the meanings of the parts of the expression, so *saw logs* does not qualify as an idiomatically combining expression.¹⁰

On the other hand, saying an expression is an idiomatic combination doesn't require us to explain why each of its parts has the figural interpretation it does, so long as we can establish a correspondence between it and the relevant element of the idiomatic denotation. When we hear *spill the beans* used to mean 'divulge the information', for example, we can assume that *spill* denotes the relation of divulging and *beans* the information that is divulged, even if we cannot say why *beans* should have been used in this expression rather than *succotash*. This is not to say, of course, that *spill* can have the meaning 'divulge' when it does not co-occur with *the beans*, or that *beans* can have the meaning 'information' without *spill*. The availability of these meanings for each constituent can be dependent on the presence of another item without requiring that the meaning 'divulge the information' attach directly to the entire VP. Rather it arises through a convention that assigns particular meanings to its parts when they occur together.

Not all idioms are what we are calling idiomatically combining expressions. There are numerous expressions like *saw logs*, *kick the bucket*, and *shoot the breeze* whose idiomatic interpretations cannot be distributed over their parts, and which must therefore be entered in the lexicon as complete phrases.¹¹ These will be referred to as 'idiomatic phrases'.¹² Nevertheless, the class of idiomatic phrases is much smaller than the class of idioms defined by criteria of predictability, and this observation is directly relevant to predicting the syntactic versatility of these expressions.

distinction between 'isomorphism' and 'motivation'. See van der Linden (1993:15–21) for a detailed discussion of related distinctions in the literature and the variety of terminology that has been employed.

¹⁰ We are not claiming that the denotation of *saw logs* is essentially or metaphysically a unary relation, but only that it cannot be analyzed as a binary relation in a way that would be consonant with this particular figure of speech. By contrast, a hypothetical idiom like *visit dreamland* might be regarded as an idiomatic combination, if one were prepared to think of sleeping as a binary relation between a person and a certain state of consciousness.

¹¹ Alternatively, following Yatabe 1990, rules of semantic interpretation allow an idiomatic interpretation to be assigned to certain phrases when they are constructed from nonidiomatic components.

¹² Even these expressions may be relatively transparent, however. As we noted, the motivation for *saw logs* is clear to anyone who has listened to both activities. Moreover, an idiomatic phrase may inherit some semantic properties from the meanings of its parts. For example, as noted in Nunberg 1977, *kick the bucket* cannot be used to refer to a protracted death, as in *??She has been kicking the bucket for the last six months*. Presumably this reflects an assumption that whatever the scenario that might license this metaphor, the punctuality of *kick* would have to be preserved in the idiomatic interpretation. Still, *kick the bucket* is not an idiomatically combining expression, in the sense that we cannot analyze the syntactic constituents as referring expressions.

In our view, a great many difficulties in the analysis of idioms arise directly from a confusion of the key semantic properties associated with the prototypical instances of the class:

- Their relative conventionality, which is determined by the discrepancy between the idiomatic phrasal meaning and the meaning we would predict for the collocation if we were to consult only the rules that determine the meanings of the constituents in isolation, and the relevant operations of semantic composition.
- Their opacity (or transparency)—the ease with which the motivation for the use (or some plausible motivation—it needn't be etymologically correct) can be recovered.
- Their compositionality—that is, the degree to which the phrasal meaning, once known, can be analyzed in terms of the contributions of the idiom parts.

At the same time, most linguists, it would seem, have simply assumed that phrasal idioms are noncompositional by definition. The following quotations—some quite influential—are typical:

- (I) a. 'The essential feature of an idiom is that its full meaning...is not a compositional function of the meanings of the idiom's elementary parts' (Katz & Postal 1963:275).
- b. 'I shall regard an idiom as a constituent or a series of constituents for which the semantic interpretation is not a compositional function of the formatives of which it is composed' (Fraser 1970:22).
- c. 'Idioms...do not get their meanings from the meanings of their syntactic parts' (Katz 1973:358).
- d. 'These are idiomatic in the sense that their meaning is non-compositional' (Chomsky 1980:149).
- e. 'Our definition of idioms, or frozen expressions, is rather broad. Ideally, an expression is frozen if the meaning is not predictable from the composition, that is to say, for example, if the verb and fixed complement(s) do not contribute to the meaning of the sentence (e.g., *to kick the bucket*, *to take the bull by the horns*)' (Machonis 1985:306).
- f. 'The traditional definition of an idiom states that its meaning is not a function of the meanings of its parts and the way these are syntactically combined; that is, an idiom is a noncompositional expression' (van der Linden 1992:223).

The confusion of compositionality and conventionality may stem in part from a tendency among some linguists to take assertions about the structure of language as claims about what speakers do when they produce or understand sentences. Thus, our earlier claim that *spill the beans* is compositional might be misconstrued as entailing that a speaker who knows the literal meanings of *spill*, *the*, and *beans* but had never encountered this idiom would use it to mean 'divulge information'. Clearly, no such consequence was intended. In saying that an expression is compositional we were making a claim about speakers' knowledge of the language; but there is no reason why this claim has to be

cached in in terms of hypotheses about performance. We intended only the weaker claim that speakers are capable of recognizing the compositionality of a phrase like *spill the beans* after the fact, having first divined its meaning on the basis of contextual cues.

So inasmuch as the use of an idiom like *spill the beans* requires learning some facts about the collocation itself, over and above the rules that govern the use of each of its constituents in isolation, it has seemed to follow that the phrase could not be compositional, particularly if one believes as well that the test for compositionality should be a speaker's ability to produce or comprehend the expression solely on the basis of knowledge about its constituents and about the relevant semantic combinatorics. Thus conventionality has seemed to entail noncompositionality, with the result that many linguists use the two terms interchangeably in talking about idioms. In contrast, we have suggested that while phrasal idioms involve special conventions, these do not entail the noncompositionality of such expressions; the conventions can be attached to the use of the idiom constituents, rather than to the collocation as a whole.¹³

Whatever the causes, this blurring of what ought properly to be distinct theoretical categories has played a decisive role in shaping the linguistic analysis of idioms. In the following section we will argue that most phrasal idioms are, in fact, idiomatically combining expressions. We will then review some of the ways in which idioms have figured in syntactic argumentation, concluding that many idiom-based arguments depend crucially on the confusion between conventionality and noncompositionality.

Finally, we will take up another set of observations that have been made about phrasal idioms, those involving the distribution of thematic roles. Once again, we will argue that these regularities can be explained without requiring recourse to any grammatical principles—or, to put it another way, that they provide no evidence for one or another version of grammatical theory. Instead, we will explain them by appealing to another property of prototypical idioms—their proverbiality.

THE SEMANTIC ANALYSIS OF IDIOMATICALLY COMBINING EXPRESSIONS

3.1. ARGUMENTS FOR COMPOSITION. Despite the common identification of idiomatity with noncompositionality, there are powerful reasons to believe that

¹³ We thus align ourselves squarely in a tradition that some (e.g. Wood 1981:11) would trace back to Pāṇini's analysis of Sanskrit verbal prefixes (but see Joshi 1968). The compositionality of a wide range of idioms was clearly recognized by such researchers as Weinreich (1969), Mitchell (1971), Makkai (1972, 1973), Bolinger (1977), Langacker (1987), Napoli (1988), and van der Linden (1993). Wood 1981 provides a useful overview of the history of work on idioms; van der Linden 1993 is a helpful source for more recent research on idioms; and Gibbs 1990 surveys some relevant psycholinguistic studies of idiomatity. Wood herself endorses an austere definition of idiom as a complex expression that is both 'wholly noncompositional in meaning' and 'wholly nonproductive in form'. The difference between her view and ours, however, is perhaps merely terminological, as our observations about idioms seem broadly consistent with 'collocations' as she uses that term (following the Firthian tradition—see especially Mitchell 1971). However Wood offers no arguments whatsoever (nor are we aware of any) that linguistic theory should distinguish between wholly and partially conventional or compositional expressions.

parts of an idiom should be assigned interpretations, contributing to the interpretation of the whole idiom. First of all, parts of idioms can be modified, either by means of adjectives, as in 2, or by means of relative clauses, as in 3.

- (2) a. *leave no legal stone unturned*
 b. *beat our terrifying swords into plowshares*
 c. *kick the filthy habit*
- (3) a. *Pat got the job by pulling strings that weren't available to anyone else.*
 b. *Your remark touched a nerve that I didn't even know existed.*
 c. *Many Californians jumped on the bandwagon that Perot had set in motion.*

It is important to note that these are examples of what Ernst (1981) has termed internal modification, that is, modification of only part of the meaning of the idiom. Thus, for example, *leave no legal stone unturned* does not mean 'legally leave no stone unturned': it means (roughly) that all legal methods are used, not that it is legal to use all methods. In order to modify part of the meaning of an idiom by modifying a part of the idiom, it is necessary that the part of the idiom have a meaning which is part of the meaning of the idiom.¹⁴

An interesting example of internal modification of an idiom chunk occurred in the following headline from *The Washington Post Weekly* of September 13–18, 1993:

(4) *Reinventing and Tilting At the Federal Windmill*

Here the idiomatic NP, with its internal modifier, is serving as the object of a nonidiomatic verb. This is possible because the presence of the full idiomatic verb phrase provides the NP with its idiomatic meaning, which can then be composed with the verb *reinventing*, which is not part of the idiom. Both the

¹⁴ The external modification phenomenon, of course, exists outside of the domain of idioms. Thus, examples like (i)–(iii) (the last pointed out by an anonymous reviewer) allow an interpretation where the NP-internal modifier functions not as restricting the reference of the nominal constituent, but rather as an operator taking the nominal within its scope.

(i) *An occasional sailor came into the bar.* [= Occasionally, a sailor came into the bar.]

(ii) *Every day, ten new people die from AIDS.* [= Every day, it happens anew that ten people die from AIDS.]

(iii) *They drank a quick cup of coffee.* [= They quickly drank a cup of coffee.]

The distinction between internal and external modification seems clear in principle (but see Shaer 1992 and Nicolas 1992 for arguments against this claim). Nevertheless, it is not always easy to make in practice. In particular, adjectives that delimit the domain in which the metaphor is to be understood may at first glance appear to be internal, but should in fact be regarded as external. Examples are given in (iv)–(vi):

(iv) *The President doesn't have an economic leg to stand on.*

(v) *Perot came apart at the political seams.*

(vi) *After the hearings, witness produced evidence that he had taken sexual advantage of her, but the nominee had already been confirmed.*

These can be given approximate paraphrases that begin with the phrase *In the domain of ...*, e.g., *In the domain of economics, the President doesn't have a leg to stand on*, indicating that it is the meaning of the whole idiom, not just a part, that is being modified. Incidentally, *leave no legal stone unturned* can have such a domain interpretation ('in the domain of the law, leave no stone unturned'), but it also has the internally modified reading discussed above.

modification and the coördination in this example require that part of the idiomatic meaning be identified with the object NP. Further, parts of idioms can be quantified, as in 5.

- (5) a. *touch a couple of nerves*
 b. *That's the third gift horse she's looked in the mouth this year.*
 c. *We could...pull yet more strings...*(Dickinson 1969:26)

Again, the quantification may affect only part of the idiom's meaning: to *touch a couple of nerves* is not the same as to 'touch a nerve a couple of times'. The fact that it is possible to quantify over idiomatic nerves and strings like this indicates that some part of the meanings of these idioms is identified with these expressions.

Parts of idioms may, in certain restricted cases, also be emphasized through topicalization, as in 6.

- (6) a. *Those strings, he wouldn't pull for you.*
 b. *His closets, you might find skeletons in.*
 c. *Those windmills, not even he would tilt at.*
 d. *That hard a bargain, only a fool would drive.*

It would not make sense to emphasize parts of idioms in this way unless these parts had identifiable meanings in their idiomatic uses.

Similarly, parts of idioms can be omitted in elliptical constructions (what is usually referred to as VP Ellipsis), as in 7.

- (7) a. *My goose is cooked, but yours isn't.*
 b. *We thought the bottom would fall out of the housing market, but it didn't.*
 c. *We had expected that excellent care would be taken of the orphans, and it was.*

It is now widely accepted¹⁵ that phenomena such as VP Ellipsis are fundamentally semantic in nature. Though certain details of the theory of VP Ellipsis remain controversial, it is widely accepted that antecedents of the missing elements in such constructions must correspond to semantic units, i.e. to pieces of an interpretation. Since the antecedents in these examples are parts of idioms (e.g. *cooked* in the first example), it follows that these idiom parts must have some kind of interpretation of their own. Finally, much the same point can be made from the existence of coreference relations between pronouns and parts of idiomatic expressions. While this phenomenon has been noted before (see Gorbet 1973 and Langacker 1987), its existence has sometimes been flatly denied. For example, Bresnan (1982:49) argues that genuine idiom chunks may not serve as antecedents for pronouns. The examples in 8 and 9, cited by her as ungrammatical, provide what we think are actually counterexamples to her claim.¹⁶

¹⁵ See Sag 1976, Williams 1977, Dalrymple et al. 1991, Hardt 1993, Fiengo & May 1992, inter alia.

¹⁶ Marcus et al. (1983:132) make the same claim on the basis of (i), which strikes us as even more clearly acceptable than 8 and 9.

(i) *The children made a mess of their bedrooms, but then cleaned it up.*

- (8) *Although the F.B.I. kept tabs on Jane Fonda, the C.I.A. kept them on Vanessa Redgrave.*
- (9) *Tabs were kept on Jane Fonda by the F.B.I., but they weren't kept on Vanessa Redgrave.*

We agree with Bresnan that there are some idiom chunks which cannot be antecedents for anaphora (including parts of idiomatic phrases, e.g. *the bucket* in *kick the bucket*), but we disagree with her claim that *tabs* in *keep tabs on* is one of them. The examples in 10 show clearly that at least some idiom chunks are possible antecedents for pronouns.

- (10) a. *We thought tabs were being kept on us, but they weren't.*
 b. *Close tabs were kept on Jane Fonda, but none were kept on Vanessa Redgrave.*
 c. *Kim's family pulled some strings on her behalf, but they weren't enough to get her the job.*
 d. *Care was taken of the infants, but it was insufficient* (Chomsky 1981:327).
 e. *Pat tried to break the ice, but it was Chris who succeeded in breaking it.*
 f. *We worried that Pat might spill the beans, but it was Chris who finally spilled them.*
 g. *Once someone lets the cat out of the bag, it's out of the bag for good.*
 h. *I had a bone to pick with them, but they were so nice that I forgot about it.*
 i. *I would not want you to think that we are proud of our ability to pull strings, such as the ones we pulled to get you down here* (Dickinson 1969:25).

While we do not provide a complete account of anaphoric reference to idiom chunks in what follows, we believe that our treatment of idioms can provide the basis for a principled explanation of the behavior of idiom chunks with respect to anaphora.

Cinque (1990:162, n. 8) argues that the 'nonreferential status' of idiom chunks, like that of measure phrases, entails that they cannot be resumed by object clitics in discourse, which must ordinarily be referential, whereas they can be antecedents for these pronouns in left dislocation, where they are 'simple placeholders of object position'. He gives the Italian examples 11–12 (his judgments):

- (11) a. Speaker A: *Io peso 70 chili* 'I weigh 70 kilos'.
 Speaker B: **Anch'io li peso* 'Even I weigh them'.
 b. Speaker A: *Farà giustizia* 'He will do justice'.
 Speaker B: **Anch'io la farò* 'I will do it too'.
 (12) a. *70 chili, non li pesa* '70 kilos, he does not weigh them'.
 b. *Giustizia, non la farà mai* 'Justice, he will never do it'.

This generalization is doubtful. *Fare giustizia* 'to do justice' is clearly an idiomatically combining expression (if it can be counted as an idiom at all), and

several native speakers tell us they find 11b acceptable, even more so in a more natural utterance like 13:

- (13) *Se Andreotti non farà guistizia, Craxi la farà.*
 'If Andreotti will not do justice, Craxi will do it.'

And whatever deviance 11a possesses is not shared by 14.

- (14) *Maria non ha mai pesato 70 chili, ed anche suo figlio non li ha mai pesati.*
 'Maria has never weighed 70 kilos, and even her son has never weighed them.'

Hence the alleged nonreferential status of *70 chili* can provide no reliable explanation for its anaphoric potential. More generally, the objects of idiomatic combinations in Italian can be the antecedents of object pronouns in examples like the following:

- (15) *Andreotti ha tenuto le fila fino al 92, e poi le a tenute Craxi*
 'Andreotti held the lines (i.e. ran things from behind the scenes) until 92, and then Craxi held them.'
- (16) *Gianni é rientrato nei ranghi nel 90, quando Francesco ne é uscito.*
 'Gianni re-entered the ranks (i.e. resumed activities) in 90, when Francesco left from-them.'
- (17) *Hanno chiuso gli occhi a Moro e li hanno chiusi anche a Berlinguer.*
 'They closed Moro's eyes (i.e., Moro is dead) and they closed Berlinguer's too.'
- (18) *Darwin ha aperto nuove strade, e anche Freud le ha aperte.*
 'Darwin opened new roads (i.e. broke new ground), and Freud opened them too.'

In contrast, the objects of idiomatic phrases cannot be the antecedents of such pronouns, nor can they be the antecedents of resumptive pronouns in left-dislocation:

- (19) **Gianni ha mangiato la foglia, ed anche Maria l'ha mangiata.*
 'Gianni ate the leaf (i.e. caught on to the deception), and Maria ate it too.'
- (20) **La foglia l'ha mangiata Gianni.*
 'The leaf Gianni ate it.'

Thus Italian provides a basis for much the same argument as we have made for English. Modification, quantification, topicalization, ellipsis, and anaphora provide powerful evidence that the pieces of many idioms have identifiable meanings which interact semantically with other. This conclusion, though it seems evident once one examines a substantial number of examples, is in direct contradiction to well-established assumptions in generative grammar. It is also supported by the psycholinguistic studies described in Gibbs 1990. Of course, the meanings of idiom chunks are not their literal meanings. Rather, idiomatic meanings are generally derived from literal meanings in conventionalized, but not entirely arbitrary, ways.

3.2. THE COMPOSITION OF IDIOMATIC INTERPRETATIONS. To say that an idiom is an idiomatically combining expression is to say that the conventional mapping from literal to idiomatic interpretation is homomorphic with respect to certain properties of the interpretations of the idiom's components. In the case of an idiom like *pull strings*, this is quite easy to see: the literal situation-type involves a pulling activity and an affected object that is a set of strings. The idiomatic situation-type that this is mapped to involves a different activity, but one that preserves certain properties of pulling, and an affected object that participates in the idiomatic activity in a way that is similar in certain key respects to the way strings are pulled.

On such an account, we are led to expect to find families of idioms, where, for instance, the same verb can occur in different environments to form distinct, but semantically related, idioms. In fact, such cases are quite common, including:

- (21) *hit the hay (sack); lose one's mind (marbles); take a leak (piss, shit, crap); drop a bomb (bombshell, brick); pack a punch (wallop); get off one's ass (tush, rear, butt, etc.); throw someone to the dogs (lions, wolves, etc.); hold a pistol (gun) to someone's head; laugh on the other side of one's face (on the wrong side of one's mouth, out of the other corner of one's mouth); stand on one's own two feet (legs); open the floodgates (sluice gates, gates); add fuel to the flames (fire, conflagration); go to heaven (the happy hunting ground, a better reward, etc.); give hostages to fortune (time, history)*

Likewise, Binnick's 1971 observation that there are a great many paired idioms involving the verbs *come* and *bring* (e.g. *bring/come forth, bring/come to blows*) is quite unsurprising on our account: the semantic relationship between these two verbs in their literal interpretations is preserved by some of the mappings to idiomatic interpretations (but not by all; cf. e.g. *come/*bring a cropper*).

There are also cases where the same NP (with a single idiomatic interpretation) may occur with more than one idiomatic verb, as we would expect.

- (22) *keep (lose, blow) one's cool; step (tread) on someone's toes; ram (shove) something down someone's throat; beat (whale) the tar out of someone; stop (turn) on a dime; lay (place, put) one's cards on the table; search (hunt, look for) NP high and low; have (keep) one's feet planted (set) firmly on the ground; pass (send, take, etc.) the hat around; clap (set, lay) eyes on; talk (argue, complain, etc.) until one is blue in the face; should (ought to, need to, better) have (get) one's head examined (seen to, looked at, tested), beat (knock, thrash, etc.) the daylights out of, keep (start, get, have, set, etc.) the ball rolling.*

Note that the existence of ANY such idiom families is quite surprising on the standard view of idioms as undergoing individual rules assigning idiosyncratic interpretations (as proposed by Katz & Postal 1963, Fraser 1970, and Chomsky

1981). On this standard view, all idioms are individual anomalies of interpretation, instead of the situational metaphors we claim most of them are.

A central feature of our analysis of idiomatic combinations is the claim that the dependency between the verbs and their objects is semantic in nature, that is, that the inability of idiomatic *the beans* to appear with any verb other than *spill* is derived from the fact that the idiom consists in a (literal) 'spilling-the-beans' meaning being conventionally and homomorphically associated with a 'divulging-the-secret' meaning. Without some occurrence of 'spill', the literal meaning upon which the idiom is based is not expressed, and hence the metaphorical mapping has no argument to map. The dependency among the parts of idiomatically combining expressions is thus fundamentally semantic in nature. Note that the claim here is subtly but importantly different from the treatment of Gazdar et al. (1985), who claimed that there is a semantic incompatibility between the idiomatic *the beans* and any verb other than the idiomatic *spill*. While the present analysis requires the idiomatic NP and the idiomatic verb to co-occur for semantic reasons, it does not exclude the possibility that an idiom chunk could also be semantically compatible with other expressions.

This semantic dependency in idiomatically combining expressions may include such factors as the definiteness of idiomatic NPs. This could account for the marginality of *spill the beans* in comparative constructions:

- (23) ??*They spilled more of the beans to the Times than they spilled to the Post.*

Note, however, that parts of *spill the beans* can be elliptical:

- (24) *I was worried that [the beans]_i might be spilled, but they_i weren't ____.*

We believe that there are a variety of semantic properties of this sort that play a role in understanding why particular idioms undergo certain syntactic processes, and not others. Radford (1988) argues against the idea that the co-occurrence dependencies in idioms are semantic.¹⁷ His argument is based on the putative synonymy of *pay attention* and *pay heed*, together with the fact that *attention* can appear in many environments that exclude the noun *heed* (423):

- (25) a. *You can't expect to have my attention/*heed all the time.*
 b. *He's always trying to attract my attention/*heed.*
 c. *He's a child who needs a lot of attention/*heed.*
 d. *I try to give him all the attention/*heed he wants.*

In fact, however, *pay attention* and *pay heed* are not synonymous, as evidenced by contrasts like the following:

- (26) a. *The children paid (rapt) attention/?*heed to the circus.*
 b. *I pay (close) attention/?*heed to my clothes.*
 c. *They paid attention/??*heed to my advice, but didn't follow it.*

¹⁷ Interestingly, Radford appears to accept our claim that parts of phrasal idioms have meanings. In discussing the example *the cat seems to be out of the bag* (p. 442), he writes: '*the cat* has its idiomatic sense of "the secret" here.'

While the sense of *pay* in both collocations may well be the same, *attention* and *heed* have subtly different meanings, related to the semantic difference between the verbs *attend* and *heed*; we clearly attend to much that we do not heed. Notice in this connection that one can take heed but not attention, and that attention but not heed can wander.

Although Radford's argument fails, nouns like *heed* and *dint*, which appear only in idioms, cannot be said to get their idiomatic interpretations through metaphors—at least not synchronically. They do, however, carry parts of the meanings of the idioms in which they appear, so they are consistent with our central claim that parts of many phrasal idioms carry parts of their idiomatic meanings. Their highly restricted distributions indicate that their meanings are so highly specialized as to be compatible with only one or two predicates. Such dependencies are simply the limiting case of selectional restrictions, which are generally recognized to be semantic in nature. Not surprisingly, idiom chunks with less narrowly restricted distributions (as in the idiom families cited in 21 and 22 above) tend to be ones based on synchronically relatively transparent metaphors.

Let us now examine some of the predictions of our analysis of idiomatically combining expressions, using *take advantage* as our example. In this idiom, *take* is assigned a meaning roughly paraphrasable as 'derive', and *advantage* means something like 'benefit'. These paraphrases are not exact; indeed, we maintain that no exact paraphrases of these expressions exist. Further, the idiomatic interpretations of these words are such that they cannot sensibly be composed with anything but each other.

First, our analysis will allow the parts of the idiom to be separated syntactically, so long as their interpretations are composed in the permitted manner. Hence, the fact that parts of idiomatic combinations can appear in passivized and raised positions follows immediately from independently necessary mechanisms for interpreting passive and raising constructions.

(27) *Advantage seems to have been taken of Pat.*

Second, we allow for the possibility of quantification and internal modification (but only by modifiers that make sense with the idiomatic interpretation of an idiom chunk, e.g. the 'benefit' sense of *advantage*). These possibilities are realized in the phrase *take no significant advantage*.

Third, our analysis permits ellipsis of part of the idiom or pronominal reference to part of an idiom in some cases:

- (28) a. *They claimed full advantage_i had been taken of the situation, but it_i wasn't ____.*
 b. *They claimed full advantage had been taken of the situation, but none was ____.*

These examples must of course meet further conditions. For instance, a coherent idiomatic interpretation must be associated with a VP that meets all other conditions for ellipsis. Also, the idiom chunk *advantage* is clearly a mass noun and thus can be antecedent to a singular pronoun (e.g. *it* in 28a), but never to a plural pronoun:

- (29) **They claimed full advantage; had been taken of the situation, but they; weren't —.*

There are many properties of phrasal idioms that we are not yet able to elucidate in full detail. We claim, however, that the syntactic properties of idioms which have been the focus of the generative literature are largely predictable from the semantically based analysis of idioms we are proposing.

Fourth, our approach can help account for the variation idioms exhibit in their syntactic flexibility. Idiomatic phrases, like *kick the bucket* and *saw logs*, lose their idiomatic interpretations when they are deformed, as in the passive. Such 'transformational deficiencies' have been a major topic of investigation by generativists studying idioms (e.g. Katz & Postal 1964, Chafe 1968, Fraser 1970, Katz 1973, Newmeyer 1974, van der Linden 1993).

For the most part, it has been assumed that the syntactic versatility of idioms simply had to be stipulated, either by means of exception features or through encoding in the syntactic structures. See, for example, n. 94 of Ch. 2 of Chomsky 1981, which suggests that idiomatic *kick* is marked as requiring the presence of *the bucket* at LF, rather than the trace of 'the bucket'. This is a stipulation characteristic of generative treatments of idioms. Notable exceptions to this are Chafe, Newmeyer, Bach (1980), Lakoff (1987:451), and van der Linden (1993), who all claim that the syntactic behavior of idioms can be predicted, at least in part, on the basis of their meanings, a view we share and expand upon below.

Considerations of learnability also suggest that the syntax of idioms is not so arbitrary as many analyses indicate.¹⁸ It is evident that speakers are never explicitly taught which idioms passivize and which don't; furthermore, our intuitions in this domain are too robust and too consistent across speakers to be attributable entirely to having heard or not heard certain idioms in the passive. (Similar remarks apply to raising and other constructions.) Any adequate theory of idioms must address this point, and provide a principled account of the 'transformational deficiencies'.

Though we lack a full theory at present, we would like to suggest that there is a principled basis for certain syntactic properties of phrasal idioms. We assume, following Fillmore et al. 1988, Goldberg 1992, and others, that constructions, like lexical items, may have meanings associated with them. An idiomatic phrase, we suggest, is simply an idiosyncratic type of phrasal construction that is assigned its own idiomatic meaning. Idiomatically combining expressions, as discussed above, consist of a fundamentally semantic (typically figurative) dependency among distinct lexemes, however restricted in distribution these lexemes might be.

As an illustration, consider *kick the bucket*, which, as noted earlier, is almost completely undecomposable for English speakers. This idiom has the syntactic structure of a normal verb phrase. In this instance, however, the idiomatic meaning is not composed from idiomatic interpretations of the parts. Rather, the idiomatic meaning is assigned to the whole phrase, without being distributed

¹⁸ This point is also made in Gibbs 1990.

to its constituents. This idiom, we would claim, is an idiosyncratic phrasal construction type, a subtype of verb phrase.¹⁹

The absence of an idiomatic interpretation for *The bucket was kicked by Pat* is thus attributable to the fact that passive is a lexical regularity that holds between a pair of lexical forms (say, a base form and its corresponding passive participle), rather than a pair of phrases. Since the idiomatic interpretation of *kick the bucket* arises only from the definition of a type of phrasal construction, there is simply no mechanism in the grammar of English that assigns the idiomatic interpretation to the passive sentence, which can be derived only from a passivization of the verb *kick*, which means only 'kick', not 'die'.²⁰ Likewise, topicalization or clefting of *the bucket* is impossible, as this would involve assigning particular discourse roles to (the denotation of) an element that, except when it appears within instances of the idiosyncratic VP-construction type, can only refer to a contextually determinate bucket. Agreement, however, will naturally occur, since the idiomatic VP construction *kick the bucket* inherits the general properties of VPs, and hence is specified for agreement features that must match those of its lexical head daughter, a form of the lexeme *kick*.²¹

We are thus in effect proposing to explain a variety of 'transformational deficiencies' of idioms by positing a bifurcation between idiomatic phrasal constructions and idiomatically combining expressions, with only the latter type permitting those processes which, though once regarded as transformational, are for independent reasons (see for example Bresnan 1982 and Hoekstra et al. 1980) more properly regarded as lexical in nature. Notice that this approach predicts a strong correlation between semantic analyzability and 'transformational productivity'. That is, to the extent that compositional semantic analysis of an idiomatic expression is possible, a lexical analysis, i.e. an analysis that posits interpretationally interdependent words combining by general syntactic principles, is to be preferred, certainly from the point of view of the language learner.

As noted in van der Linden 1993, it seems plausible to assume that compositional analysis will be preferred (at least at some point) in the learning process; hence a language learner will rarely end up positing an idiomatic phrase. This helps to explain the distributional properties of idioms: (1) In order to be input to passivization, an idiom must have lexical status, as passive is a lexical phenomenon. (2) In order for an idiom to be assigned lexical status, the learner

¹⁹ We take no particular stand here on why a select group of external modifiers, e.g. PROVERBIAL (signalling that a nonliteral interpretation is intended), may intrude in this construction type.

²⁰ We thus believe our analysis to be preferable to the alternative (suggested by Ruhl 1975) of assigning *kick* an idiomatic sense meaning (nondurative) 'die', and *the bucket* no sense at all. Although Ruhl's idea gains plausibility from the colloquial use of *kick* and *kick off* meaning 'die', it provides no explanation for the impossibility of passivizing *kick the bucket*.

²¹ A natural way to develop a theory of this sort is in terms of inheritance hierarchies (Touretzky 1986, Flickinger et al. 1985, Flickinger 1987, Carpenter 1992, and two special issues of *Computational Linguistics* [1992:18.2 and 18.3] dedicated to this topic). For one application of such a theory to the grammar of phrases, see Pollard & Sag 1994. See also Goldberg 1992 and Fillmore & Kay 1993.

must be presented with sufficient evidence of analyzability to be able to isolate the individual lexemes that are idiomatically related. Thus semantic analyzability and lexical processes like passivization are naturally correlated on our account.²²

Of course, the distinction we have drawn between idiomatic phrases and idiomatic combinations is only a first step toward making sense of the correlations that exist between semantic analyzability and lexical processes like passivization. Indeed we would suggest that passivization, the possibility of internal modification and quantification, and the possibility of pronominal reference to or ellipsis of part of a phrasal idiom are loosely correlated properties clustering around the notion of lexically analyzed, idiomatic combination. The distinction between idiomatic phrases and idiomatic combinations in and of itself can provide only a partial account of the puzzling variable distribution of idiomatic interpretation. Interacting factors, mostly having to do with the nature of the discourse function of particular constructions and the particular figures underlying various idiomatic combinations, have a critical role to play as well. Providing such an account would require explicit formulations of the semantics and pragmatics of numerous constructions, together with detailed analyses of a representative sample of idioms, showing how their idiomatic and literal interpretations are related.²³ Such an undertaking is beyond the scope of this paper, but the approach outlined here would seem to be an essential first step toward solving these long-standing mysteries.

IDIOMS IN SYNTACTIC ARGUMENTATION

4. Idioms have figured prominently in the syntactic argumentation of generative grammar. In this section, we examine a number of grammatical claims that have been based on properties of idioms. We first consider and reject one of the standard arguments for the existence of transformations; we then confront some difficult data from German that pose a potential problem for our alternative to the standard transformational analysis. We turn next to additional idiom-based arguments for transformations, taken from Chomsky 1980, finding problems with these as well. We address rather briefly the role idioms play in the theory of Government and Binding, turning finally to the oft-discussed phenomenon of idioms with two different passive forms. While by no means an exhaustive survey, this section deals with many of the most prominent uses of idioms in generative syntactic argumentation.

4.1. A TRADITIONAL ARGUMENT FOR TRANSFORMATIONS. One of the most widely repeated arguments for the existence of transformations (cf. e.g. Culicover 1976:168, Keyser & Postal 1976, Perlmutter & Soames 1979:166–9, Radford 1981, 1988, van Riemsdijk & Williams 1986, Napoli 1993) is based on the

²² Notice that this line of reasoning leaves open the possibility that some lexical items select for semantically vacuous elements, e.g. 'dummy' pronouns, the individuation of which presents no particular difficulty for the language learner.

²³ A very similar point is made by Ruwet (1991:236).

fact that certain idioms can appear in more than one syntactic form. For example, both the a and b sentences of 30 and 31 have idiomatic readings.

- (30) a. *Pat spilled the beans.*
 b. *The beans were spilled by Pat.*
 (31) a. *The cat is out of the bag.*
 b. *The cat seems to be out of the bag.*

If surface structures are generated directly, so the argument goes, then the a and b sentences must be distinct idioms. By contrast, a transformational analysis of the b sentences allows each idiom to be listed only once. The idioms can be inserted into D-structures in their contiguous (a) forms and transformationally broken up, yielding their b forms. This simplifies the grammar and captures a generalization. Further, since the parts of the idioms can be indefinitely far apart, as illustrated in 32, it is not possible for the grammar simply to list all the surface incarnations of every idiom.

- (32) a. *The beans continue to appear to be certain to be spilled.*
 b. *The cat seems to be believed to be out of the bag.*

Thus, positing a single underlying idiom which may be transformationally deformed is claimed to be not only parsimonious, but unavoidable.

Not surprisingly, this argument has been answered by some linguists advocating direct generation of surface structures (see especially Bresnan 1982).²⁴ Briefly, the simplest answer to give is that so long as the theory contains rules of some sort relating, e.g., active and passive constructions, then these rules can be used to account for the existence of 'transformed' idioms. Specifically, certain formulations of Lexical Functional Grammar (LFG) as well as modern Head-Driven Phrase Structure Grammar (HPSG) posit a lexical rule directly relating active and passive lexical forms, and other nontransformational theories have other devices accomplishing much of the same thing. Any of these mechanisms could apply to idiomatic as well as nonidiomatic constructions, and so could circumvent the argument given above. In short, the argument only shows that a grammar for English must provide some rules for capturing grammatical relationships like the active/passive relation, whose rule-governed nature has seldom if ever been doubted, even among nontransformationalists.

Moreover, as McCawley (1981) observed, there is a paradox lurking in the standard argument for transformations based on idioms.²⁵ This paradox can be illustrated by a pair of examples like 33a–b, both of which are completely acceptable:

- (33) a. *Pat pulled the strings [that got Chris the job].*
 b. *The strings [that Pat pulled] got Chris the job.*

If relative clauses like these involve WH-movement, then 33a is predicted to be good precisely because *pull*, *the*, and *strings* are adjacent in D-structure, and have undergone an idiom interpretation rule. But under those assumptions, 33b

²⁴ See also Ruwet 1991 for a very detailed rebuttal to this argument, raising a number of points similar to ones we discuss below and providing a lot of interesting data on French idioms.

²⁵ A similar argument is made by Bresnan & Grimshaw (1978:388).

should not allow the idiomatic interpretation, because only *the strings* is in the matrix environment at any level of structure, and *pulled* is embedded in the relative clause—away from *the strings* at all levels of derivation. Revising the assumptions surrounding the transformational analysis of relative clauses to make the head nominal raise out of the relative clause might work to explain why 33b may be interpreted idiomatically, but then 33a should not allow an idiomatic interpretation, as *the strings* is in the relative clause at D-structure, while *pull* is in the upstairs clause throughout the transformational derivation.²⁶

It is no doubt possible to invent manipulations that could resolve this paradox (e.g. cyclical lexical insertion, with various other assumptions), but examples like McCawley's show at the very least that the standard argument repeated in many introductory textbooks simply fails to motivate any transformational analysis.

The fundamental defect in this argument, in our opinion, is the assumption that idioms are arbitrary associations between forms and meanings.²⁷ Only this assumption licenses the inference from the existence of two forms for an idiom to the need for the nontransformational grammar to list them separately. However, if that assumption is wrong—that is, if parts of idioms may carry parts of their meanings—then the close semantic relationship between actives and passives would lead one to expect that active phrasal idioms would normally have passive counterparts, irrespective of one's syntactic theory. In short, our central thesis vitiates one of the textbook arguments for the existence of transformations.

4.2. NONCOMPOSITIONAL FLEXIBILITY IN GERMAN. Ackerman & Webelhuth (1993) have recently pointed out that syntactic flexibility of idioms is not always limited to idiomatically combining expressions. They cite two German idioms, *den Vogel abschiessen* 'steal the show' (literally, 'shoot off the bird') and *ins Gras beißen* 'bite the dust' (literally 'bite into the grass'), whose pieces do not appear to carry identifiable parts of their idiomatic meanings. They argue that certain deformations of these idioms are possible, but not others, offering the following judgments:²⁸

- (34) *Hans hat den Vogel abgeschossen.*
 Hans has the bird shot.off
 'Hans stole the show.'
- (35) *Er hat ins Gras gebissen.*
 he has into.the grass bitten
 'He died.'

²⁶ Notice, by the way, that examples like 33 also argue for the account given in §3.2 of the co-occurrence dependencies between parts of idiomatic combinations. If the idiomatic *strings* were semantically incompatible with all predicates except the idiomatic *pull*, then it could not serve as the subject of *got*. The presence of *pull*, however, licenses the idiomatic interpretation of *the strings*, which is semantically compatible with the meaning of *got*.

²⁷ Essentially this same point is made by Langacker (1987:23–25).

²⁸ Following Ackerman & Webelhuth 1993, we ignore the literal interpretations of these sentences, even though all four sentences are well formed (though pragmatically odd) if understood literally.

- (36) *Den Vogel hat Hans abgeschossen.*
 the bird has Hans shot.off
 'Hans stole the show.'
- (37) *Ins Gras hat er gebissen.*
 into.the grass has he bitten
 'He died.'
- (38) **Abgeschossen hat Hans den Vogel*
 shot.off has Hans the bird.
- (39) **Gebissen hat er ins Gras*
 bitten has he into.the grass

Our inquiries among native German speakers indicate a good deal of variability regarding these judgments, ranging from acceptance of all four sentences 36–39 to rejection of all four. It is clear, however, that many speakers find 36–37 perfectly acceptable, indicating that syntactic variability of idioms does not always require semantic analyzability. This appears to contradict our claim of a decade ago (Wasow et al. 1984:109) that 'the syntactic versatility of an idiom is a function of how the meanings of its parts are related to one another and to their literal meanings.'

Related to this dilemma is another set of observations. As noted in Schenk 1992, noncompositional idioms in German (and Dutch) clearly participate in such phenomena as verb-second. Thus in examples like the following, again involving *den Vogel abschiessen* and *ins Gras beißen*, the verb is separated from the other pieces of the phrasal idiom.

- (40) *Morgen beisst er ins Gras.*
 Tomorrow bites he into.the grass
 'Tomorrow he bites the dust.'
- (41) *Manchmal schießt Heidi den Vogel ab.*
 Sometimes shoots Heidi the bird off
 'Heidi sometimes steals the show.'

Facts such as these also lead Schenk to deny our correlation between syntactic versatility and semantic compositionality. We believe, however, that all the examples discussed by Ackerman & Webelhuth and by Schenk either are consistent with the analysis sketched in the previous section, or else they motivate the introduction of one additional category of idiom—that of lexically encoded noncompositional idiom—that is not motivated for English.

Note first that the noncanonical word order in 36 and 37 is not associated with any special semantic or pragmatic role for the initial elements. Ackerman & Webelhuth (1993) refer to these examples as instances of topicalization, but this label is misleading. Unlike English topicalization, which involves emphasis of the content of the topicalized constituent, the discourse function of the German construction is not dependent on assigning a meaning to the initial element. Indeed, as the following examples (from Uszkoreit 1987:156–60) indicate, the 'topicalized' material in German (bracketed in 42–44) need not even be a syntactic constituent:

- (42) [*Das Buch schenken*] wollte Peter dem Jungen.
 the book give wanted Peter the boy
 'Peter wanted to give the boy the book.'
- (43) [*Dem Jungen schenken*] wollte Peter das Buch.
 the boy give wanted Peter the book
 'Peter wanted to give the boy the book.'
- (44) [*Noch schneller gefahren sein*] müsste er mit dem neuen Wagen.
 still faster gone have must he with the new car
 'He should have gone even faster with the new car.'

Such observations suggest that the construction involved in Ackerman & Weibelhuth's examples is quite different from English topicalization. Rather, the word order variations in question seem more like 'scrambling' phenomena.

The past fifteen years of research in the theory of grammar has produced a wide variety of methods for the treatment of discontinuous constituents and alternations in form (see, for example, the papers in Huck & Ojeda 1987, Baltin & Kroch 1989, and Horck & Sijtsma 1994). These include various proposals for relaxing the 'no tangling' condition on the branches of phrase structure trees (e.g. McCawley 1982, 1987, Ojeda 1987) as well as analyses that extend the purely concatenative operation of context-free grammars to include 'wrapping' (Bach 1979, Pollard 1984) or 'shuffle' operations (Reape 1994; see also Dowty 1994). These approaches provide an interesting new perspective on discontinuous constituency in general and the treatment of idiomatic phrasal constructions in particular. In terms of the analysis of German suggested by Reape 1994, for example, the elements of a phrase may be 'liberated' (Pullum 1982, Zwicky 1986) as that phrase combines with others to build a larger constituent. On this approach, the elements of the phrase [*den Vogel abgeschossen*], even if analyzed as an idiomatic phrase in our sense, could be separated and reordered as a larger sentence, e.g. *Den Vogel hat Hans abgeschossen*, is constructed. Similarly, as proposed in Pollard 1984, verb-second sentences could be treated by liberation, more precisely by wrapping the head of a VP around the subject NP as those two phrases combine to build an inverted sentence. This kind of analysis would allow [*beisst ins Gras*] to be treated as an idiomatic phrase that combines directly with the subject NP *er* 'he' to form the constituent *beisst er ins Gras*, which in turn is a constituent of *Morgen beisst er ins Gras*.

As we argued in §3.2, we believe that differences in syntactic versatility among idioms are explainable in semantic terms. English Topicalization, for example, whose meaning involves some sort of highlighting of the interpretation of one constituent, cannot be used with an idiom unless the parts of the idiom carry identifiable parts of the idiomatic meaning. The reason, then, that *den Vogel abschiessen* allows object fronting and verb-second (but not passivization) in German is that the neither object fronting nor verb-second is a lexical process at all, but rather the result of an alternative realization of the combination of a subject with an idiomatic verb phrase. This treatment moreover points to a deeper explanation of the contrast between English and German. The apparent lack of correlation between semantic compositionality and syntactic

versatility in German could be explained as a direct consequence of the fact that German—unlike English—uses Reape-style liberation operations.

As noted above, there is an alternative analysis of the data pointed out by Ackerman & Webelhuth and by Schenk. That alternative involves allowing noncompositional idioms in German to be treated in essentially the same way as we have proposed for idiomatically combining expressions. That is, *beisst ins Gras* could be treated as a lexical combination of an idiomatic *beisst* that selected for *ins Gras* as its complement. Once such an analysis is admitted for these noncompositional expressions, then the elements in question would participate in the grammar of extraction and verb-second just like any other expression. This approach immediately raises the question of why English differs from German (and Dutch) in treating only semantically compositional expressions in terms of lexical combinations. The answer to this question might well be derived on grounds of learnability. That is, assuming that a child is always trying to provide a lexical analysis of the pieces of expressions, she will be led to treat something as an idiomatic combination only to the extent that there is a lack of evidence for entering each piece of the idiom into the lexicon as a word. Semantic noncompositionality is strong evidence against such individuation, and this is offset in English only by the appearance of a modicum of morphology on the verbal head of such idiomatic phrases as *kicks the bucket*. Otherwise, given the rigidity of English word order, the child encounters *kick*, *the*, and *bucket* only as a fixed sequence and finds insufficient motivation for the treatment as a lexical combination. In German, by contrast, the input data are presumably significantly less constrained. That is, the possible scramblings of the parts of *beisst ins Gras* provide evidence for the lexical independence of its pieces. This evidence is further supported by significantly more robust morphology on the verb (presumably the child hears a wide range of inflected forms). Thus German presents the child with much more evidence that an analysis via lexical combination is to be preferred over treatment as an idiomatic phrase.

We have sketched here only two possible approaches to the important problems raised by Ackerman & Webelhuth and by Schenk, indicating how each might be able to provide an explanation for the fact that German (and Dutch), unlike English, exhibit constructions where noncompositional idioms are syntactically versatile. We will not attempt to resolve these issues here, nor will we discuss other analytic alternatives available within diverse syntactic and semantic frameworks.

4.3. CHOMSKY'S 1980 IDIOM ARGUMENTS. Chomsky 1980 offered three additional arguments for the existence of transformations, all based on idioms. We contend that each of these arguments, upon examination, proves to be based on dubious factual claims and questionable reasoning.

The first argument is that idioms 'typically have the syntactic form of non-idiomatic expressions' (149). This 'would be an accident if meanings were simply mapped into formal structures. But if the relation between form and meaning

is more indirect, mediated through D-structures and S-structures, it follows that idioms must have the form of independent [sic] generated structures' (151). Of course, an argument for D-structures and S-structures is an argument for transformations, since the mapping from D-structures to S-structures is taken to be accomplished by transformations.

Implicit in this argument is the assumption that the relationship between form and meaning in idioms is arbitrary. If instead one adopts our position that the meanings of phrasal idioms are typically composed from the meanings of their parts, then a far more straightforward explanation of the syntactic regularity of most idioms is available. So long as the rules of semantic composition apply only to the normal syntactic structures of the language, idiomatically combining expressions must have the syntax of nonidiomatic expressions. No appeal to multiple levels of syntactic structure or indirection in semantic interpretation is needed.

Incidentally, the number of idioms which do not 'have the syntactic form of nonidiomatic expressions' is not so small as the discussion above might suggest. Ex. 45 is a sample, which we believe constitutes only a fraction of the total list.

- (45) *by and large, No can do, trip the light fantastic, kingdom come, battle royal, Handsome is as handsome does, Would that it were, every which way, Easy does it, be that as it may, Believe you me, in short, happy go lucky, make believe, do away with, make certain*

Chafe 1968 took the existence of such 'idioms which are not syntactically well-formed' (111) as an 'anomaly in the Chomskyan paradigm'. Presumably, what Chafe had in mind is that the transformational theory of that time had no way of allowing such idioms to be generated. While this point is perhaps, strictly speaking, true, we see no alternative to simply listing expressions like these—an option available to transformational and nontransformational theories alike.

Chomsky's second argument is based on the following claim: 'there are idioms that appear at both the D-structure and S-structure levels, and idioms that appear only at the D-structure level. But idioms that appear only at the S-structure level are very rare; we can regard this possibility as excluded in principle, with such marginal exceptions as should be expected in the case of idiomatic constructions' (152). Since the standard assumption has been that idioms are inserted into D-structures like ordinary lexical items, this asymmetry is predicted, and hence is taken as evidence for the existence of transformational movement from D-structure positions to S-structure positions. However, a close examination reveals that the exceptions are by no means so rare or marginal as Chomsky suggests. Brame (1978) has pointed out examples like 46a, which are grammatical only if the idiom is in preposed position, as the contrast between 46b and 46c indicates.

- (46) a. *What the hell did you buy?*
 b. *I wonder who the hell bought what.*
 c. **I wonder who bought what the hell.*

Other idioms that appear only in WH-questions are *How do you do?*, *What's eating NP?*, and *What gives?*. There are also a number of idioms which are only possible in the passive. A sample of these is given in 47.²⁹

- (47) *The die is cast, The race is run, If the truth be known, hoist with one's own petard, fit to be tied, caught short, born yesterday, have it made, written on water, Rome wasn't built in a day, when all is said and done, cast in stone, made for each other, taken aback, may as well be hung for a sheep as a lamb*

Finally, there are several idioms which are limited to constructions also often presumed to be transformationally derived.³⁰

- (48) a. *hard to take, play hard to get* (tough-movement)
 b. *too hot to handle* (complement object deletion)
 c. *Is the Pope Catholic?* (subject-auxiliary inversion)
 d. *Break a leg!, Believe me!* (imperative deletion)
 e. *may as well be hung for a sheep as a lamb*
 f. *more dead than alive* (comparative deletion)³¹

Although they evidently should not be 'excluded in principle', the relative rarity of idioms like those in 46–48 needs to be accounted for (though not necessarily in the synchronic grammar). One might conjecture that the existence of productive rules like the passive leads to back-formation of active forms for passive-only expressions (and similarly for the other constructions in question). This would also account for the infrequency of passive-only simple verbs (e.g. *rumor*). This asymmetry could, if desired, be built into any theory (transformational or not) which has general rules for deriving passives, questions, etc., by stipulating that such structures are more marked unless they are derived using the general rules.

Chomsky's third argument is the following:

'while some idioms undergo movement, as in *excellent care was taken of the orphans*. ... etc., we do not find the same idiomatic interpretations in such structures as *excellent care is hard to take of the orphans* ... There is good reason to believe that the latter construction does not involve movement of a Noun Phrase to the subject position: rather, the subject of the main clause is generated in place. Correspondingly, interpretation as an idiom is ruled out in principle if idiom rules apply at the D-structure level [footnote omitted]' (153).

Once again, what Chomsky rules out in principle is actually possible, as Berman (1974:261) originally noted.

²⁹ We do not include collocations like *Children should be seen and not heard*, *A woman's work is never done*, *A good time was had by all*, and *easier said than done*, which, though conventionally used only in their passive forms, appear to be completely literal in interpretation.

³⁰ In the absence of consensus about structures and derivations, we recognize that not everyone will accept all of these as counterexamples to Chomsky's generalizations. We have labeled them with names of rules from classical transformational grammar for heuristic purposes only. While the rules themselves have no status in contemporary theories, the examples are illustrative of phenomena that are still often analyzed with the help of transformations.

³¹ There are many other idioms that involve comparative constructions, e.g. *old as the hills*, *colder than a witch's teat*, *ADJ-er than hell/all get out*.

- (49) a. *Some strings are harder to pull than others.*
 b. *That favor was easy to return.*
 c. *That nerve is easy to touch.*
 d. *The law can be hard to lay down.*
 e. *This boat is very easy to rock.*
 f. *That line is hard to swallow.*
 g. *This barrel is, unfortunately, very easy to scrape the bottom of.*
 h. *His closets would be easy to find skeletons in.*

Still, Chomsky is unquestionably right that there are many idioms that can passivize but cannot appear in the *tough*-construction. He captures this as a difference between movement and some sort of control. However, the effect of such a distinction can be captured (and, indeed, must be if the standard raising/equi differences are to be accounted for) in nontransformational analyses. This is normally done by distinguishing between NP positions which are semantic or thematic arguments of the predicates in their clauses (e.g. subject of *try*) and those which are not (e.g. subject of *tend*). So, assuming that Chomsky is right about the *tough*-construction, adjectives like *hard* would be analyzed as binary predicates, with their subjects filling one semantic argument. Of course, such an account requires that idiom chunks like those in 49 can serve as semantic arguments, and they must therefore be assigned some independent meaning.

The conventional transformational wisdom, which underlies the argument of Chomsky's just discussed, is that arguments of equi predicates can never be idiom chunks. This is meant to follow in transformational theories because idiom chunks must originate in underlying structure positions together with the other elements of the idiom. Dislocated idiom chunks arise only as the result of movement operations, and such operations never move elements to positions assigned thematic or semantic roles. Hence transformational theories predict that arguments of equi predicates, which are always role-assigned, can never be realized as idiom chunks.

But this prediction is too strong, as the following examples show:

- (50) a. *Every dog expects to have its day.*
 b. *An old dog never wants to be taught new tricks.*
 c. *Every lion prefers to be bearded in his den.*
 d. *Birds of a feather like to flock together.*
 e. *The early bird hopes to get the worm.*
 f. *They didn't tell me themselves, but they persuaded a little bird to tell me.*

These examples provide evidence against any syntactic theory that in principle rules out idiomatic arguments of equi predicates.³²

³² Gazdar et al. (1985) offer *The piper wants to be paid* as an example of an idiom chunk serving as an argument of an equi predicate. Schenk 1992 dismisses this example as 'word play', but offers neither a more detailed characterization of this notion nor arguments as to why such a label should render the example irrelevant to the question of whether idiom chunks are compatible with equi.

The figuration, informality, and affect of idioms (discussed above in §2) give many idioms a

Since we assume that the basis for particular restrictions on the distribution of idioms is fundamentally semantic in nature, we make no such sharp predictions about control (equi) structures. Again, it is true that such examples are difficult to find or construct, but we speculate that this is because arguments of equi predicates, for nonlinguistic reasons, must be animate. As we will see in §5, there are principled reasons why the overwhelming majority of idiom chunks denote inanimate entities. Hence, there is an inherent conflict between the interpretation of most idiom chunks and that of control structures. This conflict, we believe, is sufficient to explain the standard observation that examples like those in 51 are unacceptable.

- (51) a. **Close tabs want to be kept on Sandy by the FBI.*
 b. **Advantage never wants to be taken of Lee by the other kids.*
 c. **The beans prefer to be spilled.*
 d. **Close attention likes to be paid to problems of this sort.*
 e. **The cat hopes to be out of the bag.*

The idioms in 50, unlike those in 51, are exceptional in that their parts do allow animate reference.

4.4. IDIOMS IN GOVERNMENT-BINDING THEORY. In his book *Lectures on government and binding* (1981; henceforth *LGB*), Chomsky pursues the goal of trying to unify subcategorization and theta-marking by proposing principles which require that a verb can select a complement only if it also assigns that complement a theta role. Phrasal idioms thus assume a particular importance in *LGB*, for the idioms Chomsky discusses (*take advantage of*, *take care of*, and *kick the bucket*) appear to involve a verb that selects a particular idiom chunk as object without assigning it a semantic role. Chomsky assigns idiomatic interpretations to idioms at D-structure by means of special 'idiom rules' that presumably map specific phrase markers into idiomatic interpretations in a noncompositional way. That is, in virtue of the application of these rules, a specific structure comes to have an idiomatic meaning, but none of its constituents do. Though apparently denying that parts of idioms have interpretations, Chomsky introduces a special theta role (designated as '#') to be assigned to all idiom chunks, thus allowing them to be treated as what he calls 'quasi-arguments' and rendering them broadly consistent with the requirement that subcategorized complements must be theta-marked.

LGB is not entirely clear about the nature of quasi-arguments; the discussion in Ch. 6 presents a slightly different view from that of Ch. 2, and the entire analysis, which is never given a precise formulation, remains somewhat of an uncomfortable fit with the main ideas of the version of Government Binding theory (GB) laid out there. It is probably no accident that GB textbooks (Haegeman 1991, Cowper 1992) make no mention of idioms whatsoever or (van Riemsdijk & Williams 1986, Napoli 1993) mention them only to make the standard

somewhat whimsical character, but they are nevertheless quite normal uses of language. The naturalness of the examples in 50 should lay to rest the doubts about the possibility of idiom chunks in equi constructions.

argument for transformations that we criticized above. Idioms have acquired an unclear status in GB—they are no longer central to the theory, and possibly not even consistent with it.

We would like to suggest that the basic view of idioms we have outlined can in fact relieve some of this discomfort for GB theory, providing a natural way to make the analysis of idioms compatible with the other goals of GB research (as well as those of other frameworks). If idiom chunks can have interpretations, then there is no problem about assigning them theta-roles and argument status, and they cease to create difficulties for the theta criterion.

Of various idiom-based syntactic arguments that have appeared in the GB literature, we will comment on only two.³³ Kitagawa (1986:263–64) claims that idioms provide one of several motivations for generating subjects internal to the verb phrase. He points out that what he calls ‘the so-called “sentential” idioms from English’ typically permit free choice of tense, aspect, and modality:

- (52) a. *The cat got out of the bag.*
 b. *The cat has gotten out of the bag.*
 c. *The cat may get out of the bag.*

In Kitagawa’s words, ‘what truly makes up an idiom in these examples is not the entire sentence but “the sentence minus an auxiliary element”’. If the subject starts out inside the VP, he argues, then the idiom is a D-structure constituent, with no discontinuities. A completely parallel argument is put forward by Larson (1988:340), who claims that the existence of idioms like *send NP to the showers*, *take NP to task*, and *throw NP to the wolves* is an argument for a D-structure constituent consisting of a verb plus a prepositional phrase, with the direct object NP generated external to that constituent.

These arguments bear a close resemblance to the traditional argument for transformations discussed in §4.1. They are based on the assumption that, because idioms are idiosyncratic, they should be listed in the lexicon as complete constituents. However, once the semantic nature of most idiom-internal dependencies is recognized, the motivation disappears for claiming that they form underlying constituents.

Moreover, the form of argument employed by Kitagawa and Larson, if carried to its logical conclusion, leads to some highly questionable constituent structures. In particular, examples like 53 would entail that there are underlying constituents consisting of: a verb plus the head noun of its direct object NP, excluding the determiner of the NP; subject plus verb and a preposition, excluding the object of the preposition; subject, verb, preposition, and head noun, excluding the determiner of the NP; and verb plus NP plus preposition, excluding the object of the preposition.

- (53) a. *Pat really gets Chris’s goat.*
 b. *The bottom fell out of the housing market.*
 c. *Butter wouldn’t melt in Pat’s mouth.*
 d. *Pat took issue with Chris’s claims.*

³³ See Shaer 1992 for discussion of some others.

In short, we find that the use of idioms in recent arguments for constituency suffers from essentially the same weaknesses as the earlier use of idioms to argue for the existence of transformations.

4.5. THE DOUBLE PASSIVE BIND. One possible argument for transformations could be based on idioms with double passives, such as the following:

- (54) a. *Advantage was taken of the students.*
 b. *The students were taken advantage of.*

Bresnan (1976:15) gives an elegant transformational analysis of such examples, based on the assumption that *take advantage* is a complex verb properly containing the simple verb *take*. In subsequent work (Bresnan 1982:60–61), however, she abandoned the transformational treatment in favor of a lexical one. According to this latter analysis, *take advantage of* is assigned two structures in the lexicon. On one analysis, the whole string is a morphologically complex transitive verb; on the other, the verb consists only of *take*, with the NP *advantage* functioning as its object. Passivization is treated as a lexical rule, formulated in terms of grammatical functions: the double analysis of the active will allow two passives to be generated.

We believe that this approach is almost correct. We claim that, in addition to the idiomatic meanings of *take* and *advantage* that combine in the way described earlier, there is a lexical entry—an idiomatic phrase—for an intransitive verb *take advantage*, which takes a PP complement headed by *of* and permits a prepositional passive (sometimes called a ‘pseudopassive’) *taken advantage of*.³⁴

Chomsky (1981:146, n. 94) offers a novel treatment of double passives:

‘Following Lasnik and Kupin (1977), we may think of an idiom rule for an idiom with a verbal head as a rule adding the string α -V- γ to the phrase marker of each terminal string α - β - γ , where β is the idiom, now understanding a phrase marker to be a set of strings.’

What this does, in effect, is to combine the two analyses of the standard treatment into one phrase marker, albeit one that cannot be represented by a single tree structure. This treatment presupposes the sort of string-based theory of

³⁴ We differ here from Bresnan, who includes *of* as part of the verb. This difference is based on our observation that the *of*-phrase is often omitted. The following are typical of the dozens of examples we have collected from newspaper corpora:

- (i) *People take advantage in the nine-item express line by checking out 27 items.*
 (ii) *The defending champion seemed a step slow coming to the net, and Capriati took advantage with passing shots on service returns.*
 (iii) *We should take advantage when a group comes forward and says it's willing to participate on substantial basis.*
 (iv) *“There was no force or coercion,” Mastracci said. “He was just in a position to take advantage.”*

We take no stand here on how pseudopassives should be analyzed. The old idea of treating what look like verb-preposition sequences as lexical transitive verbs is not without its problems, as pointed out by Postal (1986:206–209). Still, any analysis that works for simple pseudopassives like *spoken of* should also work for *taken advantage of*, if *take advantage* has an analysis as a lexical verb.

phrase markers and transformations assumed by Chomsky 1975 and work based on it.

A priori, there is no reason to prefer Chomsky's proposal just quoted over one that posits two lexical entries to get two analyses for *take advantage* (or vice versa): both require some otherwise unnecessary stipulation to account for the existence of two passives. There are, however, some empirical differences.

First, as we have already argued, internal modification of an idiom chunk entails that that part of the idiom has an idiomatic meaning. The lexical verb *take advantage* should therefore not permit internal modification of *advantage*. It follows that internal modification of *advantage* should be incompatible with the outer passive. Chomsky's analysis makes no such prediction; indeed, by merging the two analyses into one structure, it appears to be incapable of distinguishing different behaviors that might correlate with the two passives. Quirk et al. (1972:848) argue that the predicted difference in internal modifiability does in fact occur with such idioms:

'There is a tendency to use the regular passive if the head of the prepositional phrase is premodified by an open-class adjective (and hence the idiomatic nature of the construction is weakened).

Considerable allowance will be made for special cases.

rather than

?Special cases will be made considerable allowance for.'

Naturally occurring data support this intuition. We searched an enormous database of newspaper texts³⁵ for outer passives of *take advantage*, finding over 1200 exemplars. Of these, only the following three had anything between *taken* and *advantage*:

- (55) a. *It would be very hard to enforce, and it will be taken unfair advantage of.*
 b. *Not even six Cochise fielding errors were taken full advantage of.*
 c. *She is pretty and she also has a personality, but does not wish to be taken such advantage of and hold the left-handed compliments, too.*

In contrast, the same corpus included only 71 examples of inner passives of *take advantage*, but in 47 of these, *advantage* was preceded by an adjective and/or quantifier. Ex. 56 gives a few cases with adjectives:

- (56) a. *Maximum advantage is taken of the natural beauties of the place.*
 b. *Full advantage is taken of facilities nearby.*
 c. *No undue advantage is taken nor any dangerous weapon used.*
 d. *In the Wanderer/Alberich scene, imaginative advantage was taken of Tom Fox's physical stature.*

³⁵ The database, which consists of the texts of 53 American newspapers, was made available by Dialog Inc. in connection with a research alliance between Dialog and Xerox Palo Alto Research Center. While we do not have an exact figure on the size of this corpus, we believe it is on the order of a billion words.

- e. *But further advantage has been taken of the opportunity.*
- f. *Greater advantage can be taken of federal funds available through the use of locally raised matching money.*

It seems to us that the modifiers in the outer passives are all external, whereas some of those in the inner passives (e.g. 56c and 56f) are internal. We admit, however, that the individual examples are annoyingly unclear with respect to the question of whether the modification is internal or external.

The numerical difference, however, is striking. Indeed, the rarity of any sort of modification of the internal noun in outer passives is so pronounced as to cry out for explanation. One possible account would be to say that the idiomatic phrase *take advantage* should be treated like a word, permitting morphological variation but not allowing other words to intrude between its parts.³⁶

As might be expected, *take advantage* occurs vastly more often in the active than in the passive, with *advantage* modified much more frequently than in the outer passive but much less frequently than in the inner passive. Searching only one newspaper (the *Washington Post*), we found over 9500 occurrences of *take advantage*, with about 7% of those including a quantifier or adjective before *advantage*.

In contrast to the standard treatment of the double passive idioms, Chomsky's proposal provides no apparent way to account for the frequency differences we have observed, for his proposal provides only one analysis of idioms permitting double passives.

The data for the double passive idioms are clearer with respect to our other diagnostics for distinguishing between idiomatic phrases and idiomatically combining expressions. Our analysis predicts that quantification of the internal noun and anaphoric reference to it should both be possible with the inner passive, but not with the outer passive. These predictions seem to be correct:

- (57) a. *Too much advantage has been taken of the homeless.*
- b. **The homeless have been taken too much advantage of.*
- (58) a. *They claimed advantage_i was taken of Pat, but it_i wasn't taken of anyone.*
- b. **They claimed Pat was taken advantage_i of, but nobody was taken it_i of.*

In the corpus data *advantage* is never quantified in the outer passives, but it sometimes is in the inner passives. Some representative examples are given in

³⁶ The objection to this, of course, is that examples like 55 do occur, albeit very infrequently. It seems to us that 55c sounds sufficiently marginal to be regarded as ungrammatical. But 55a–b are not so easy to dismiss as extragrammatical phenomena of some sort. We speculate that the adjectives *full* and *unfair* may have become such common modifiers of *advantage* in the idiom *take advantage* that some speakers have lexicalized *take full advantage* and *take unfair advantage* as idiomatic verbs in their own right, permitting their own pseudopassive forms. A search of the Dialog database mentioned in n. 35 revealed that in 66 percent of the (almost 6000) occurrences of *take advantage* in which exactly one word occurred between *take* and *advantage*, that word was *full*, and in another 7 percent it was *unfair*. In contrast, we found no other word appearing in this context with a frequency greater than 0.4 percent. These numbers provide some support for our speculation.

59; note that the quantification in 59e is introduced by means of the existential *there* construction.

- (59) a. *Also disappointing is how little advantage is taken of the locale other than the occasional Arquitectonica house we've seen a thousand times ...*
 b. *Too little advantage is taken of the canal.*
 c. *No advantage is taken of the view to the river and beyond that is especially wonderful at sunset.*
 d. *That some advantage could be taken of Shoal Creek was proved by Morgan.*
 e. *Republican supporters of anticommunist guerrillas in Nicaragua believe there is political advantage to be taken of this.*

As in the case of adjectival modification, the difference between inner and outer passives with respect to quantification and anaphora is expected on an approach that assigns two analyses to idioms with double passives, but it appears to be inexplicable on Chomsky's analysis.

In sum, our treatment of *take advantage*, in which this idiom can be analyzed either as an idiomatic combination or as an idiomatic phrase, makes a range of apparently correct predictions. Chomsky's ingenious proposal for merging the two analyses runs afoul of these facts.

More generally, any version of the double entry analysis allows for the possibility that the two entries might be semantically different. While we know of no evidence that this is the case with *take advantage*, another widely cited idiom with two passives, *take care*, does exhibit some semantic differentiation. In the idiomatic combination, *care* carries a connotation of solicitude that is absent from the idiomatic phrase. Hence, only the outer passive is appropriate in contexts where such a connotation is absent, as in the following discourse:

- (60) *Will you see to it that the garbage is taken out?*
 a. *I'll make sure that it gets taken care of.*
 b. *#I'll make sure that care gets taken of it.*

Similarly, the gangster's use of *take care of* to mean 'murder' permits only an outer passive. Chomsky's treatment seems to be incapable of making this semantic distinction, since it assigns only one analysis to the idiom.

Another possible basis for choosing between our treatment of double passives and Chomsky's has to do with productivity. The excerpt from Chomsky's n. 94 quoted above (1981:146) can be interpreted as claiming that ALL idioms headed by verbs will be subject to the proposed idiom rule. This would entail that idioms similar in form to *take advantage* would normally have double passives. That is, idioms consisting of V + NP, characteristically followed by a PP headed by a particular preposition, would be expected to have both simple and prepositional passive forms. It turns out that the number of English idioms fitting this description is quite large, so we have restricted our investigation to those involving the verbs *make* and *take*, of which we have found 97. They are listed in the appendices, along with our judgments regarding the acceptability

of the two types of passives.³⁷ To judge by this sample, idioms permitting double passives appear to be quite rare, constituting less than 10% of the total.³⁸

Thus, an analysis (like Chomsky's, on one interpretation) that implies that idioms of this type should normally permit double passives would be in error. In contrast, an approach (like ours) that requires extra stipulations for those idioms that do permit double passives would correctly lead one to expect that they would be uncommon (on the natural assumption that complex lexical entries should be infrequent). In fact, if, as we claim, most phrasal idioms are idiomatically combining expressions, then idioms with outer passives should be relatively rare, irrespective of whether they also permit inner passives. In our sample, this expectation is borne out.

Moreover, our approach predicts that idioms with only outer passives should be semantically more opaque than those with only inner passives, since the former are treated as phrases that have been lexicalized into verbs, whereas the latter are typically conventionalized metaphors whose parts have identifiable meanings. Impressionistically, this prediction seems correct. Thus, for example, *take hold*, one of the two idioms we list as having a fully grammatical outer passive but no inner passive, means roughly 'grasp', and it is difficult to see what proper part of the interpretation can be assigned to *hold*. Consequently, as expected, no internal modification, quantification, or anaphoric reference is possible:

- (61) a. **Pat took clammy hold of Chris's hand.*
 b. **Nobody took any hold of the lever.*
 c. **I thought Pat would take hold of the rope, but he took it of the rail instead.*

Compare this with *take stock*, which has only an inner passive. This idiom can be roughly paraphrased as 'make an assessment', with the noun *stock* semantically approximating 'assessment'. Internal modification, quantification, and anaphoric reference sound much better with this idiom:

- (62) a. *Pat took detailed stock of the pros and cons of the situation.*
 b. ?*Nobody took any stock of our assets, and the results were disastrous.*
 c. *We thought stock had been taken of our needs, but it hadn't.*

Judgments in this domain tend to be quite uncertain: many speakers will undoubtedly disagree with some of our claims about which idioms permit which type of passive, as well as about the naturalness of inner modification, quantification, and anaphoric reference on various idioms. This is to be expected on our approach, for the analysis a speaker assigns to a given idiom is a function

³⁷ We expect that few readers will agree with every judgment listed in the appendices, as this domain is subject to considerable individual variation. We believe, however, that the statistical tendencies we note hold quite generally.

³⁸ It is interesting that all of the idioms we judge as having two fully grammatical passives have *of* as their associated preposition. Lacking an explanation for this fact, we will assume it is coincidental.

of the figural process on which it is based. Individuals will naturally differ regarding how readily they perceive the metaphorical basis of an idiom, resulting in variability of judgments.

Across the individual variation, however, we claim that semantic analyzability is correlated with type of passive, internal modifiability, quantifiability, and the possibility of anaphoric reference. This claim seems to be well supported by data from both introspection and usage.

IDIOM ASYMMETRIES, FIGURATION, AND PROVERBIALITY

5. In recent years, some generative discussions of the syntax of idioms have moved away from the traditional assumption that the parts of idioms carry no meanings. For example, Marantz (1984) appeals to the properties of idioms in support of the thesis that there is a fundamental compositional asymmetry between subjects and objects. He observes that English has many idioms of the form V + O (e.g. *pull strings*, *hold the line*), whereas 'subject idioms that are not also full phrasal idioms are rare, if they exist at all' (2). Marantz's account entails that any idiomatic collocation of a subject and a verb with an obligatory open object slot will either involve an unaccusative (e.g. *the bottom fell out of NP*, *the roof caved in on NP*), or will have no S-internal syntax—that is, it will constitute a 'complete sentence frame', as with *What's eating NP?*, where what is conventionalized is not just the choice of subject and verb, but also the WH-question syntax and the progressive aspect (cf. the unavailability of the idiomatic interpretation for *What ate John?*). Kiparsky (1987) accepts Marantz's claims, and argues that it is an instance of a more general phenomenon, which he claims provides evidence for a hierarchy of thematic roles defining the order in which arguments are semantically combined with their predicates. His theory predicts not only that we will find no phrasal idioms of the form V + Agent, but that there will be a similar absence of idioms of the types V + Goal, V + Goal + Agent, V + Theme + Goal + Agent, and so forth. In short, the NPs of phrasal idioms consisting of a verb and one or more arguments should not fill higher slots in the hierarchy (i.e. Agents and Goals) unless the lower slots are also filled.

For present purposes, we can ignore the broader semantic and syntactic contexts of these arguments. What is notable is that both Marantz and Kiparsky assume that idioms of the type V + NP are decomposable, at least to the extent that thematic roles can be assigned to their arguments.³⁹

5.1. THE RARITY OF IDIOMATIC AGENTS AND GOALS. An important point to bear in mind here is that the generalizations that Marantz and Kiparsky appeal to are not categorical restrictions, but statistical tendencies. In fact there are

³⁹ One point that neither Marantz nor Kiparsky clarifies is whether the relevant thematic role should be determined relative to the literal meaning of the expression, or to its idiomatic meaning (presumably by appeal to a nonidiomatic paraphrase). The two are often distinct: for example, an NP that literally shows up as a possessor might figure as a Theme in the most plausible literal paraphrase of the idiom (e.g. *get someone's goat*, *pull someone's leg*, *cook someone's goose*). In the following two sections, we try to avoid examples where this confusion could arise.

idioms of the type V + Agent that are not subject to the kinds of conditions that Marantz suggests such idioms must satisfy. One example is the idiom *A little bird told NP (that S)*. Note that the object is obligatory here: we do not get **A little bird told*. Moreover, the idiom occurs in a variety of syntactic frames and with any aspect:

- (63) a. *Did a little bird tell you that?*
 b. *A little bird must have told her.*

A number of other idioms of this type (in several languages) have been collected by Alexis Manaster-Ramer, who discussed them in a posting to the *Linguist* electronic newsletter (1/28/93). It is nonetheless true that such idioms are rare, as are idioms of the form V + Goal, such as *throw NP to the wolves* and *pay the piper*.

Granting their correctness as statistical tendencies, we can ask whether these generalizations are appropriately drawn at the level of grammatical constraints. In nonidiomatic discourse, for example, it is well known that Agents and Goals tend overwhelmingly to be animates. In contrast, in phrasal idioms involving a verb and one or more NP arguments, the great preponderance of NPs have literal meanings that are inanimate. One indication of this is that the verbs in such idioms tend largely to be those whose oblique arguments denote inanimates. For example, *The Longman dictionary of English idioms* lists 16 idioms involving transitive *throw* (e.g. *throw mud at*, *throw one's hat in the ring*) and 17 involving transitive *lay* (e.g. *lay an egg*), but none involving transitive *love*, *hire*, or *marry*, and only one involving *obey* (and in that one, *obey a call of nature*, the object denotes an inanimate). And even when the verb in an idiom ordinarily occurs with both animate and inanimate objects, its idiomatic objects tend to denote only inanimates. Thus English has at least 20 idioms of the form *hit* + NP (*hit the bottle*, *hit the hay*, etc.), in all of which the object denotes an inanimate.⁴⁰

In ordinary discourse, by contrast, animate objects of *hit* are extremely common. For example, out of 100 tokens of nonidiomatic transitive *hit* taken from a *New York Times* corpus, 47 involve an animate Theme. The same point could be made with idioms of the form *see* + NP (e.g. *see the light*, *see the world*, *see red*, *see stars*) and *know* + NP (e.g. *know one's onions*, *know the score*, *know the ropes*); the literal denotations of the NPs in these idioms are exclusively inanimate, even though animate Themes are quite common in discourse. Perhaps the most striking example of this phenomenon involves idioms of the

⁴⁰ The list includes *hit the ceiling*, *hit the high points*, *hit it off*, *hit rock bottom*, *hit the bottle*, *hit the bull's-eye*, *hit the deck*, *hit the hay*, *hit the headlines*, *hit the jackpot*, *hit the mark*, *hit the nail on the head*, *hit one's stride*, *hit pay dirt*, *hit the road*, *hit the roof*, *hit the sack*, *hit the skids*, *hit the spot* and *hit the taps* ('open the throttle'). By contrast, all of the idioms in which *hit* appears with an animate object allow free substitution of NPs: *hit NP below the belt*, *hit NP where he lives*, *hit NP close to home*, etc. The only possible exception to this generalization is the idiom *hit a man when he's down*, but it is notable that while this idiom has a canonical form, it also permits substitution of other NPs: *I don't want to hit John when he's down*, etc.

form *kiss* + NP. English has seven of these, and at least six of them involve an inanimate object:

- (64) *kiss the canvas, kiss the dust, kiss someone's ass, kiss the cup*
 ('drink'), *kiss the ground, kiss the rod, kiss NP goodbye*

In running discourse, of course, the overwhelming majority of the objects of *kiss* are animates.

Given this tendency for idiomatic NPs to have inanimate literal meanings, the low proportion of idioms whose NP arguments are Agents or Goals is not surprising, and doesn't require an independent appeal to principles of grammatical theory.⁴¹

A similar point can be made with respect to an argument put forward by Hudson (1992:262) as part of an examination of English double object constructions. Hudson notes that there are evidently no idioms consisting of a verb plus the first of two objects. That is, while there are idioms like *lend NP a hand* and *send NP to the showers*, there are none like **give the pope NP*.⁴² This observation also falls under the generalization that idiom chunks rarely denote animates. Since the first of two objects in English is almost always a Goal or Beneficiary, such objects almost always denote animates. Hence, the rarity of animate idiom chunks implies the rarity of idioms of the form considered by Hudson.⁴³

Strictly speaking, we need no more than this to disconfirm the various hypotheses that appeal to grammatical principles to explain the infrequency of particular thematic roles or grammatical relations in phrasal idioms. But while

⁴¹ Kiparsky (personal communication, 1992) argues that animacy is not sufficient to account for all of the tendencies covered by his thematic hierarchy. In particular, he claims that idioms consisting of V + Theme with an open Location slot are extremely rare, whereas idioms of the form V + Location with an open Theme are common. This, he argues, follows from his hierarchy, on which Location is lower than Theme; but it cannot be explained in terms of animacy, since neither Locations nor Themes are characteristically animate.

We find this argument unconvincing. Almost any V + Theme idiom (of which there are many) can take a Location as well (*spill the beans in the courtroom, break the ice at the party*, etc.), so Kiparsky's claim must be restricted to constructions in which a Location is obligatory, and these are quite rare in general. There are a few verbs (such as *put*) which require both a Theme and a Location, and there are likewise a very small number of V + Theme idioms that require a Location (such as *the buck stops Loc* and *set foot Loc*). The rarity of obligatory but open Locations in idioms simply follows from their rarity in nonidiomatic constructions.

Notice, by the way, that there are quite a few idioms of the form V + Theme + Location in which only the preposition of the Location argument is fixed. Examples include *light a fire under, lay hands on, put money on, and take part in*, inter alia. Such examples appear to us to be counterexamples to Kiparsky's claims.

⁴² The rarity of such idioms was briefly noted by Ruwet (1991:251), who speculated that it might be related to the fact that the first of two objects almost always denotes a human being. Clearly, our proposal is very much in the spirit of Ruwet's suggestion.

⁴³ We do not rule out such idioms categorically, though we have not found any. There are idioms like *give the devil his due* in which both objects are idiomatic, so we would not want to rule out idiom chunks as the first of two objects. Incidentally, Hudson provides no explanation for his observation; he uses it only to support his claim that the second of two objects has more in common with single objects than does the first.

our generalization regarding animacy in idioms makes us question the arguments put forward by Marantz, Kiparsky, and Hudson, it still leaves us dissatisfied. For the fact that the NPs in these idioms tend overwhelmingly to have inanimate literal meanings itself cries out for an explanation. The explanation we propose involves two of the properties of typical idioms that we mentioned at the outset. One of these is the figurative character of idioms, which we have already appealed to in another context. The second is the proverbiality of idioms.

5.2. EXPLAINING THE SCARCITY OF ANIMATE IDIOM CHUNKS. In fact, the rarity of idiom chunks with literal animate meanings is a consequence of a more basic tendency: the NPs of phrasal idioms, on their IDIOMATIC interpretations, tend not to have animate—or, more specifically, human—references. The tendency to inanimate literal meanings follows from the fact that metaphorical transfers usually preserve the animacy of NPs. When animate nouns are used metaphorically, their derived senses tend overwhelmingly to apply to other animates, as the examples in 65 suggest:⁴⁴

- (65) *dog, snake, tiger, bitch, wolf, chicken, worm, stud, monkey, father, butcher, lieutenant, ogre, fairy, heir, queen, king, goddess, mandarin, guru, brahmin, magician, whore, cannibal, bedfellow, clown, Cassandra, Judas, Casanova, Simon Legree, etc.*

If there were no ulterior considerations governing the reference of idiom chunks, then, we would expect that the majority of NPs in idiomatic combinations that have animate literal meanings would have animate idiomatic meanings as well. In fact the tendency is reversed: the relatively few idiom chunks that have animate literal meanings tend overwhelmingly to have idiomatic meanings that apply either exclusively to inanimates or to both inanimates and animates, as the examples in 66 suggest.⁴⁵

- (66) *have an albatross about one's neck, throw the baby out with the bathwater, give the bird, kill two birds with one stone, bell the cat, put the cat among the pigeons, let the cat out of the bag, count one's chickens before they're hatched, between the devil and the deep blue sea, let sleeping dogs lie, put all one's ducks in a row, get someone's goat, cook someone's goose, kill the goose that laid the*

⁴⁴ Exceptions include *dinosaur, dodo, monster, and handmaiden*, all of which can be used in metaphorical references to inanimates as well as to animates.

⁴⁵ The idioms in 66 are judged to be idiomatic combinations on the basis of their syntactic versatility or the possibility of modification of idiom parts. For example:

- (i) *He'll never get that albatross from around his neck.*
- (ii) *Let's not flog the dead horse of repatriation.*
- (iii) *The piper has to be paid sooner or later.*
- (iv) *His goose is cooked.*
- (v) *They hoped that Lady Luck would smile on them, and smile on them she did.*

Judgments again vary on some of these, and not all idioms containing NPs with animate literal meanings are idiomatic combinations. For example *go to the dogs* and *hold one's horses* seem to be idiomatic phrases.

golden egg, lock the stable (barn) door after the horse has bolted, look a gift horse in the mouth, back the wrong horse, flog a dead horse, change horses in midstream, place one's head in the lion's mouth, pay the piper, Lady Luck smiled on NP, rob Peter to pay Paul, scotch a snake, keep the wolf from the door.

By contrast, there is only a small number of verb + argument idioms in which NPs with animate literal meanings have idiomatic meanings that apply exclusively to animates, as in 67:⁴⁶

(67) *teach one's grandmother to suck eggs, give the devil his due, beard the lion in his den, hit a man when he's down, separate the men from the boys, cast pearls before swine, throw someone to the wolves, as Adj as the next man*

This suggests that the overall infrequency of idiom chunks with animate literal meanings isn't due to factors that constrain the animacy of literal meanings per se. Rather, it is animate idiomatic meanings that are avoided; idiom chunks with animate literal meanings are rare only because, used metaphorically, such NPs would tend to have animate idiomatic meanings as well.

This point is further supported by the observation that there are few or no idioms in which a chunk with an inanimate literal meaning has an idiomatic meaning that applies only to animates.⁴⁷ If animate meanings were as common with idiom chunks (interpreted idiomatically) as with other NPs, we might expect to see a fair number of examples of this type, since metaphorical transfer does not tend to preserve inanimacy in the way it does animacy. Thus a person can be described using any of the expressions in 68:

(68) *a good egg, a big gun, a loose cannon, a pistol, a straight arrow, deep pockets, a tall glass of water, a hot dog, a volcano, a peach, a top banana, the apple of one's eye, a honey, a nut, the Louvre Museum, the Coliseum.*

Now, however, we have simply displaced the problem: we started with an observation about the literal meanings of idioms and reduced it to an observation about their idiomatic meanings, which is also unexplained. At this point, we should consider what it means for an expression to be PROVERBIAL. Typically, a

⁴⁶ Similes like *work like a beaver, swear like a trooper, and drink like a fish* should not be included here, since the NPs in these collocations are not used metaphorically, but proverbially. That is, *trooper in swear like a trooper* has its literal interpretation. Moreover, when idiom chunks that literally denote animates do have animate idiomatic referents, they often permit substitution of another NP denoting the same animate. Examples include: *Beard the lion (the editor) in his den. She is as ready as the next person (supervisor) to treat her employees well. You can't keep a good man (shortstop) down.* Thus, the idiomatic forms of these expressions are better thought of as CANONICAL than as FIXED.

⁴⁷ Collocations like *the mountain must come to Mohammed* and *the pot calling the kettle black* are not idioms of the V + argument type. For the present purposes, though, the apparent nonexistence of such idioms should be regarded merely as a compelling argument for their rarity. Note also that for these purposes it seems reasonable to consider names of body parts as animates. Thus idioms like *bite the hand that feeds one, blow up in someone's face, open someone's eyes, turn someone's head*, etc. don't constitute counterexamples to this claim.

proverb or proverbial expression invokes a concrete situation (pulling strings, showing a flag, breaking ice) as the metaphorical model for a recurrent, culturally significant situation involving abstract relations or entities (e.g. exerting influence, making one's opinions known, easing the formality of a social encounter). This tendency to have abstract referents is quite marked. Thus when we consider the 27 idioms in 66 involving NP arguments with animate literal meanings and inanimate idiomatic meanings, we note that in every case the idiomatic meaning of the NP applies to an abstract entity. For example, consider the idiomatic meanings that are associated with the word *horse* as it appears in various idioms from 66:

- (69) a. *lock the stable (barn) door after the horse has bolted*
 horse = 'something of value that has been lost'
 b. *look a gift horse in the mouth*
 horse = 'something that has been freely offered'
 c. *flog a dead horse*
 horse = 'something that can no longer give satisfaction'
 d. *change horses in midstream*
 horses = 'course of action'
 e. *back the wrong horse*
 horse = 'something or someone in competition with other things
 or persons'

Only in the case of *back the wrong horse* can *horse* apply to an animate, but it can apply to an inanimate as well, such as a stock offering, a theory, or a political program. The tendency of the metaphors that underlie these idioms to map from concrete to abstract situations has a well-documented cognitive grounding. There is a good deal of recent work on metaphor that shows how the basic metaphorical schemas that underlie most transfer processes in natural language take familiar, concrete things and situations (e.g. the body, spatial relations) as the models for more abstract domains (social interactions, temporal and causal relations, and so on).⁴⁸ So we would be surprised to find a language which had an idiom of the form *divulge the information* with the meaning 'spill the soup', as in *The waiter divulged the information all over my new suit*.

Recapitulating, then, we can deduce the rarity of idiomatic Agents and Goals from two general facts about the meaning transfer in figurative uses of language:

⁴⁸ This has been an important theme in work on cognitive grammar, e.g. Lakoff & Johnson 1980, Sweetser 1990, Lakoff & Turner 1989, Gibbs 1990. The basic insight, however, goes back much further than this; cf. Vico in *The New Science* (1744/1970:89–90):

'The farmers of Latium used to say the fields were thirsty, bore fruit, were swollen with grain; and our rustics speak of plants making love, vines going mad, resinous trees weeping. Innumerable other examples could be collected from all languages. All of which is a consequence of our axiom that man in his ignorance makes himself the rule of the universe. In such a logic, sprung from such a metaphysics, the first poets had to give names to things from the most particular and the most sensible ideas. Such ideas are the sources, respectively, of synecdoche and metonymy. Metonymy of agent for act resulted from the fact that names for agents were commoner than names for acts. Metonymy of subject for form and accident was due to inability to abstract forms and qualities from subjects...'

(i) that abstract situations are described in terms of concrete ones; and (ii) that animates are mapped onto animates. Since animates are necessarily concrete, literally animate NPs in phrasal idioms are not used to denote abstract entities. Hence, literally animate NPs are rare in phrasal idioms; and since Agents and Goals are characteristically animate, they too are rare.

CONCLUSION

6. We have argued that the widespread conflation of conventionality with noncompositionality has led many linguists to overlook the fact that the meanings of most idioms have identifiable parts, which are associated with the constituents of the idioms. Once this basic fact is recognized, various syntactic arguments in the literature on idioms are seen to be based on a misconception. In particular, we have shown that idioms, standard textbooks notwithstanding, provide no supporting arguments for the existence of syntactic transformations.

We have also argued that several recent observations about asymmetries in the grammatical or thematic roles of idiom chunks should not be interpreted too narrowly. Rather than providing evidence for particular theories of phrase structure (as suggested by Marantz), grammatical functions (as suggested by Hudson), or hierarchies of thematic roles (as argued by Kiparsky), these asymmetries are a consequence of broader tendencies in figurative uses of language, tendencies which are very likely a function of how humans conceive of the world.

We believe that these arguments point in fruitful directions for future research, but much remains to be done. We have suggested a research program for investigating the question that has been central to most generative work on idioms, namely: what determines which idioms can appear in which syntactic forms? Our proposal is to base the answer(s) to this question on the nature of the semantic relations among the parts of the idioms and on the meaning and discourse functions of various constructions. We predict that the syntactic flexibility of a particular idiom will ultimately be explained in terms of the compatibility of its semantics with the semantics and pragmatics of various constructions. Testing this prediction systematically is a nontrivial project, one that may be undertaken with a number of methods, including specifying idiomatic interpretations in terms of partial functions (as proposed in Gazdar et al. 1985) or via typed feature structures. Given our present partial understanding of the many factors involved in idiomatic interpretation, we have resisted the temptation here to engage in premature formalization, a decision that will doubtless concern some of our readers.

The tendency of metaphorical mappings to go from concrete to abstract doesn't fully explain the extreme rarity of concrete (and hence, animate) idiomatic meanings in phrasal idioms of the type we have been considering. In other contexts, after all, metaphorical reference to concrete things, actions, and situations is not uncommon. As we have already noted, ordinary discourse is full of examples of metaphorical references to persons, whether via other animate terms (e.g. *pig*, *clown*) or via inanimates (*a good egg*, *a bad apple*). By the same token, many verbs that literally denote concrete (i.e. physical)

activities are used metaphorically to refer to other concrete activities, for example *blow*, *split*, *walk*, and *run* for 'leave'. Strikingly, there are a fair number of idiomatic phrases of the form V + NP whose idiomatic meanings apply to concrete one-place relations, as in 70:

- (70) *kick the bucket*, 'die'; *hit the sack*, *saw logs*, 'sleep'; *hit the road*, *make tracks*, *take a powder*, 'leave'; *make water*, 'urinate'; *shoot the breeze*, 'chat'; *hit the ceiling*, 'become angry'; *make the scene*, 'arrive'

Such expressions are not exactly plentiful; most idiomatic phrases, like idiomatic combinations, have abstract idiomatic meanings. It is still fair to say that concrete idiomatic meanings are considerably more common among idiomatic phrases than among idiomatic combinations. These observations raise an interesting question. If both verbs and NPs can have concrete idiomatic (or metaphorical) meanings when used separately, and if idiomatic V + NP phrases can have concrete idiomatic meanings, then why should such meanings be rare in idiomatically combining V + NP collocations?

A part of the explanation for this must lie in the observation that when each of the constituents of an idiomatically combining verb + argument is perceived to refer figurally to a concrete entity (and, in particular, when the reference of the NP is an animate), there is a strong tendency to assume that the reference of each part is independent of the reference of the other—that is, that there is nothing idiomatic or conventional about the combination itself. For example, suppose we hear a VP like *corral the strays* used in a political context to mean 'bring into line the nonconforming members of the party'; and suppose we have reason to believe that these usages involve some measure of conventionality. Still, we would not be surprised to find each constituent having its idiomatic sense when used in isolation, as in *The majority leader will have to corral Senators Smith and Jones*, or *The strays—Senators Smith and Jones—have so far refused to capitulate*. So there is rarely a need to conventionalize a collocation like this one qua collocation; rather, we conventionalize each of its constituents independently. At this point, however, we have no good reasons to offer as to why such constituents should be more readily detachable when their references are concrete things.

Clearly, there is much still to be learned about what sorts of collocations tend to become idioms and how they behave. But the answers will need to be based on an account of what idioms are used to express and how they do it.

APPENDIX I: *make* IDIOMS

IDIOM + PREPOSITION	INNER PASSIVE	OUTER PASSIVE
can't make heads or tails of	*	*
make a beeline for	?	*
make a big deal about	ok	??
make a break/run for	??	*
make a check out to	ok	*
make a clean breast of	?	*
make a day/night of	??	*
make a dent in	ok	??

IDIOM + PREPOSITION	INNER PASSIVE	OUTER PASSIVE
make a face at	ok	??
make a federal case out of	ok	??
make a fool (out) of	ok	ok
make a fuss over	ok	?
make a go of	*	??
make a great show of	ok	*
make a hit with	??	*
make a mess of	ok	?
make a monkey (out) of	?	?
make a note of	ok	*
make a pass at	ok	??
make a pitch for	ok	*
make a play for	ok	*
make a point of	ok	?
make a practice of	ok	*
make allowance for	ok	?
make an appointment with	ok	*
make an ass of	ok	ok
make an example of	ok	?
make an exception for	ok	*
make an impression on	ok	*
make arrangements for	ok	*
make arrangements with	ok	*
make book on	?	?
make cracks about	ok	??
make eyes at	??	?
make friends with	ok	??
make fun of	ok	ok
make hamburger out of	ok	*
make light of	??	ok
make little of	ok	??
make love to	*	ok
make mincemeat (out) of	ok	?
make much of	ok	ok
make no bones about	ok	*
make no difference to	*	*
make no mistake about	*	*
make nothing of	ok	*
make peace with	ok	??
make points with	ok	*
make sense (out) of	ok	?
make short work of	ok	?
make the best of	??	??
make time with	*	*
make use of	ok	ok
make way for	??	??

APPENDIX 2: *take* IDIOMS

IDIOM + PREPOSITION	INNER PASSIVE	OUTER PASSIVE
take a back seat to	??	*
take a bath on	??	*
take a chance on	ok	*
take a crack at	*	*

IDIOM + PREPOSITION	INNER PASSIVE	OUTER PASSIVE
take a dig at	?	*
take a dim view of	ok	*
take a fancy to	?	*
take a gander at	*	*
take a hand in	*	*
take a hard line with	ok	*
take a liking to	?	*
take a look at	ok	*
take a punch at	??	*
take a rain check on	ok	*
take a shine to	?	*
take a shot at	??	*
take a stab at	ok	*
take a stand against	ok	*
take a try at	*	*
take a whack at	*	*
take action against	ok	*
take advantage of	ok	ok
take aim at	ok	?
take an interest in	ok	*
take care of	ok	ok
take charge of	??	ok
take exception to	ok	?
take heed of	ok	??
take hold of	*	ok
take issue with	??	??
take leave of	ok	??
take liberties with	ok	*
take no stock in	ok	*
take note of	ok	ok
take notice of	ok	?
take offense at	ok	?
take part in	*	?
take pity on	??	??
take stock of	ok	*
take the edge off	ok	*
take the rap for	??	*
take the starch out of	ok	*
take up arms against	ok	*

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Department of Linguistics
Stanford University
Stanford, CA: 94305-2150
[nunberg@parc.xerox.com,
sag@csl.stanford.edu,
wasow@csl.stanford.edu]

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