THE SYNTAX OF IDIOMS*

This paper proposes that idioms are subject to the Continuity Constraint, a grammatical principle that defines their general architecture in terms of a chain of head-to-head relations. The Continuity Constraint accurately describes the organization of extant idioms, including non-constituent idioms, while at the same time correctly predicting that certain types of patterns are impossible. In addition, it sheds new light on the relevance of argument structure to idiom creation, uncovering asymmetries in the composition of idioms that appear to involve thematic hierarchy effects.

0. Introduction

Idioms have received considerable attention from linguists over the past several decades (see, e.g., Fraser 1970, Makkai 1972, Ruwet 1991, Cacciari and Tabossi 1993, Nunberg et al. 1994, and the references cited therein). One issue that has yet to be resolved satisfactorily, however, involves the question of whether the notion ‘idiom’ can be characterized in syntactic terms. This paper argues in favor of this possibility, focusing on the role of head-based licensing relations in the syntax of idioms.

Section 1 outlines and motivates a grammatical constraint that defines the general architecture of idioms, offering insights into the form of extant idioms and explaining why idioms of certain types are impossible. Section 2 considers the possible implications of this constraint for the question of whether idioms reflect argument structure asymmetries in a systematic way. Section 3 offers some brief concluding remarks. Before proceeding, however, it is necessary to consider a working definition of idioms that will allow us to identify these expressions in a relatively theory-independent manner.

For the purposes of discussion, I assume that idioms have a meaning that is not a simple function of the literal (i.e., non-figurative) meaning of their parts and that they manifest a high degree of conventionality in the choice of component lexical items. Prototypical idioms such as pull strings, shoot the bull, and the fat is in the fire manifest both these proper-

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ties. Their meanings cannot be predicted from the literal meaning of their parts and the choice of component lexical items is largely a matter of convention (which is why pull twine, shoot the cow, and the grease is in the fire lack idiomatic interpretations).

Idiomaticity is not a categorical property, however, and expressions may be idiomatic to a greater or lesser degree. Some idioms (e.g., kick the bucket) are completely opaque for the average speaker while others (e.g., make good time or kick the habit) are relatively transparent. (Makhlouf 1972 makes a useful distinction here between idioms of encoding, which compel the speaker to conform to a particular conventionalized way of speaking but have a relatively transparent interpretation, and idioms of decoding, whose meaning is not so predictable.)

Moreover, even in the case of relatively opaque idioms, there are differences in compositionality, as Nunberg et al. (1994, pp. 496–7) observe. Whereas some idioms (e.g., kick the bucket and saw logs) have a meaning that cannot be distributed over their parts, many others can be given a sort of post hoc compositional analysis once their meaning is known: in the expression pull strings, for example, the component words can each be matched metaphorically with a component of the phrase’s meaning (pull with ‘exploit’ and strings with ‘connections’); see also Williams (1994, p. 131).

Idioms also differ with regard to the substitutability of their component parts. Some idioms, especially those that are semantically opaque, allow little or no variation in the choice of lexical items. (The expressions pull strings, shoot the bull, the fat is in the fire, and kick the bucket are of this type.) On the other hand, less opaque idioms may be somewhat less fixed in their composition, as the following examples drawn from Nunberg et al. (1994) help show:

(1)a. pack a wallop/punch/*slap
   b. get off one’s ass/tush/rear/butt/*buttocks
   c. shout/ought to/need to/detert/*may have one’s head
   examined
   d. lay/place/put/*drop one’s cards on the table

This sort of flexibility in idiom composition should not be confused with a phenomenon that may occur with a much wider range of idioms, especially those of the more transparent variety. The phenomenon in question involves a sort of play on an extant idiom through the deliberate substitution of a component part. In the case of the idiom skate on thin ice, for example, it is possible to substitute various adessive and suessive prepositions without loss of the idiomatic interpretation:
(2) Be careful; you’re skating near/close/to/over thin ice.

Intuitively, such an example seems to involve the temporary extension of a familiar idiom for rhetorical purposes. It does not result in the sort of conventionalization associated with the standard form of idioms, including those reflecting the sort of variation illustrated in (1). Thus, whereas A Dictionary of American Idioms (Boatner et al. 1975) includes entries for both *pack a punch* and *pack a wallop*, it lists only one idiom for *skate*—namely, *skate on thin ice*. Moreover, in contrast to the sort of relatively arbitrary lexical restrictions on the former pattern (cf. *pack a punch* but not *pack a slap*), the phenomenon illustrated in (2) apparently permits substitution of any preposition expressing a spatial relation compatible with the meaning of *skate*. I will not consider this sort of substitution further here. Rather, I will focus my attention in the discussion that follows on the standard form of idioms, as determined by independent sources such as A Dictionary of Idioms and The American Idioms Dictionary (Spears 1988).

1. The Architecture of Idioms

In considering the possible existence of grammatical constraints on idioms, it is possible to dismiss from the outset the idea that such expressions must be 'surface structure constituents', as the following sentences help illustrate:

(3a) All hell seemed to break loose.

b. Tabs should be kept on people who disagree with this policy.

c. How much advantage did they take of the situation?

d. The law can be can be hard to lay down (Nunberg et al., p. 517)

Although it has frequently been suggested that idioms might form constituents at some underlying level of representation—e.g., that they are semantic units (Chafe 1970, p. 49), or that they are units in deep structure (Bach 1974, p. 162; McCawley 1988, p. 66) or logical form (Chomsky 1993, p. 39) —this idea too encounters very substantial difficulties. One such difficulty stems from the existence of idioms with an open genitive position, as illustrated below (e.g., Bremer 1982, p. 350, and Napoli 1992, p. 861):^1

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^1 Following Markal (1972), I use *one's* in cases where the genitive must be connotational with the tautological subject and *x's* elsewhere. I assume that the reference of the possessor in these patterns is determined by the meaning of the idiom itself: *lose one's cool* is a one-
(4)a. The cat got x’s tongue 
     (e.g., Every time Mary is asked a question in class, the cat gets her tongue).

b. x’s goose be cooked 
   (e.g., When the police arrived, we knew that Harry’s goose was cooked).

c. lose one’s cool 
   (e.g., When the questions became personal, the candidate lost his cool).

d. get x’s goat 
   (e.g., The students got John’s goat by teasing him about his new shoes).

b. fill x’s shoes 
   (e.g., No one can fill Churchill’s shoes).

There is no accepted level of linguistic representation at which the idiomatic portions of these examples (e.g. goose be cooked or blow cool) are constituents.

A related problem comes from the fact, noted by Nunberg et al. (1994, p. 500ff.), that parts of idioms can take nonidiomatic modifiers (see also Fellbaum 1993, p. 273, and Pulman 1993, p. 282):

(5)a. kick the filthy habit 

b. pull yet more string 

c. leave no legal stone unturned 

d. jump on the latest bandwagon

The presence of an NP-internal modifier in these patterns interrupts the idiom, preventing the mapping of its component parts onto any independently motivated constituent.

1.1. A Constraint on Idioms

Even though idioms need not form constituents, I contend that they are subject to an important grammatical constraint. The key to formulating this constraint lies in the relationship that holds between heads and their

place predicate with a meaning similar to that of become angry while get x’s goat is a two-place causative predicate parallel to annoy.
dependents\(^2\) – i.e., their arguments, modifiers and specifiers, including determiners in the case of nouns. The intuition here is that a head licenses its dependents in that its syntactic and semantic properties determine the number and/or type of other elements with which it can or must occur (e.g., verbs take one or more nominal arguments and allow appropriate adverbial modifiers; nouns allow particular determiners and adjectival modifiers; and so on).

Extending an idea put forward by Baltin (1989, p. 6), I further assume that licensing is a head-to-head relation (see also Chomsky 1993, p. 6). That is, a lexical item licenses its dependents via their heads. A clear example of this can be seen in the case of subcategorization. As Baltin notes (p.5), it does not suffice to stipulate that verbs such as declare and wait select CP complements: as the following examples help show, the former verb requires a CP headed by that and the latter a CP headed by for (for a comparable example involving PPs, see Jackendoff 1990, p. 256).

\[(6)a. \quad \text{The umpire declared [CP that the game would end].} \]
\[b. \quad \text{\*The umpire declared [CP for the game to end].} \]

\[(7)a. \quad \text{\*The umpire waited [CP that the game would end].} \]
\[b. \quad \text{The umpire waited [CP for the game to end].} \]

Thus, Baltin suggests, the subcategorization frames for declare and wait should include the information in (8), with the verb selecting only the head of its complement phrase:

\[(8) \quad \text{declare, V, ____ [c that]} \]
\[\quad \text{wait, V, ____ [c for]} \]

Let us say that a head X licenses a head Y if YP is a dependent of X. Thus, the verb in the phrase open the door very slowly licenses door (the head of its object argument) and slowly (the manner adverb heading the modifier phrase). These elements in turn license dependents of their own – a determiner in the case of the noun and a degree word in the case of the adverb. We can represent this aspect of a phrase’s organization as follows, with an arrow indicating a licensing relation:

\(^2\) The term ‘dependent’ is used in this sense by Huddleston (1984, p. 109), Hudson (1984, p. 76ff.) and Nichols (1986, p. 5/ft.), among others. Although this notion is most common in the literature on dependency grammar, it is often used, at least informally, in other frameworks as well, and I take it to be essentially theory-neutral.
Although very similar to 'dependency networks' (e.g., Hudson 1984), these diagrams are employed here as an abbreviatory notation only; they are not intended to replace more conventional syntactic structure.

Licensing relations can form chains in the sense defined in (10):

(10)  The string $x \cdots y \cdots z \cdots$ (order irrelevant) forms a chain iff $x$ licenses $y$ and $z$, or if $x$ licenses $y$ and $y$ licenses $z$.

Thus, the words making up the sentence *Marvin selected expensive gifts* form a chain since *select* licenses *Marvin* and *gifts* (the heads of its subject and object arguments), and *gifts* licenses the adjective *expensive*:

(11)  

To my knowledge, the notion 'chain' as it is used here has its roots in dependency grammar (see, e.g., Hudson 1984, p. 79), but it can easily be expressed in other frameworks as well; like the notion 'dependent', I take it to be theory-neutral (see note 1).

Drawing on the notion 'chain', we can now formulate the following grammatical constraint on idioms:

(12)  

**The Continuity Constraint**

An idiom's component parts must form a chain.

On this view, the most basic idioms are expressions such as *see stars* and *lose face*, which consist of a verb and the head of its theme complement (*stars* and *face*, respectively):

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1 Baltin (1989, p. 6) notes that certain idioms involve "the head of a phrase and the head of one of its complements" and Stanley Starosta (1989, class lectures) reduces idioms to a head and particular words that it selects. Moreover, Nunberg et al. suggest (1994, p. 507) that idioms "consist of a fundamentally semantic (typically figurative) dependency among distinct lexical items, however restricted in distribution these lexemes might be". However, none of these authors proposes the Continuity Constraint and none posits the existence of a chain of heads in the sense developed here. However, an anonymous referee notes a possible parallel for the latter idea in the semantic literature. Building on earlier observations by Ross (1972), Jackendoff (1983, p. 187) proposes a constraint on the lexicalization of semantic structure that is in some ways similar to the Continuity Constraint, although it does not deal with idioms.
Slightly more complicated are patterns such as *bite the dust*, in which the verb *bite* licenses the head *dust*, which in turn licenses the determiner *the*:
(I follow tradition in taking Ns rather than Determiners to be the heads of nominal phrases).

More complicated again are idioms such as *get to first base*, in which the verb licenses the head of its PP complement *to*, which itself licenses *base* as head of its NP complement. In turn, the latter element licenses the modifier *first*:

Although I will focus in this paper on verbal idioms, the Continuity Constraint seems to be respected by other types of idioms as well, including NP idioms. For example:

As the examples above illustrate, the proposed analysis reduces idioms to a continuous chain of head-to-head relationships. In the prototypical case, the terms in head-to-head relations are specific words. In some cases, however, they are classes of lexical items, consistent with the above observation that some idioms permit limited internal variation. Thus, the idiom *pack a wallop/punch* (=(1a) above) can be represented as follows:

I know of no principled limits on the length of the chains to which idioms must be reduced. The existence of sentential idioms (e.g., *the fat is in the fire*) and of idioms that include embedded clauses (e.g., *strike while the iron is hot and people who live in glass houses shouldn't throw stones*)
suggest that chains of indefinite complexity may be permissible, although the fact that idioms must be stored in the lexicon presumably imposes practical limits on the size of these expressions. As far as I know, for instance, there are no idioms containing three clauses.

The Continuity Constraint has a number of advantages. For one thing, it straightforwardly accounts for the existence of non-constituent idioms such as those exemplified in (4) above. In a case such as get $x$'s goat, for instance, the idiom is built around the head get, which licenses the N goat as head of its object argument. The latter element demands only a genitive modifier, leaving open its content. For the sake of exposition, I follow Fukui (1986) and others in taking possessor dependents to be headed by a genitive marker that may be realized in different ways, including abstractly:

\[(18)\]

\[\text{get} \; x \text{ Gen } \text{goat}\]

Comparable representations can be assigned to lose one's mind, drag one's feet, force $x$'s hand, and so on.

The proposed analysis also accounts for why adjectives, quantifiers, and other types of modifiers can be added to idioms that exhibit an appropriate degree of compositionality, as in (5) above – repeated here:

\[(5)\]

\[a. \; \text{kick the filthy habit}\]
\[b. \; \text{pull yet more strings}\]
\[c. \; \text{leave no legal stone unturned}\]
\[d. \; \text{jump on the latest bandwagon}\]

The addition of modifiers in these patterns does not change the licensing relations among the lexical items constituting the idiom. In (5a), for example, the verb kick licenses habit as head of its object argument and this noun licenses the determiner the. The fact that habit also licenses the (non-idiomatic) adjective filthy is not at odds with the Continuity Constraint:

\[(19)\]

\[\text{kick the filthy habit}\]
1.2. Impossible Idioms

In addition to accounting for the various types of continuous and discontinuous idioms just considered, the Continuity Constraint also makes specific predictions about the types of idioms that cannot occur. In particular, it rules out idioms that cannot be reduced to a continuous chain of head-to-head licensing relations. Thus, since no licensing relation holds between the heads of a subject and a direct object, we predict that there should be no idioms such as *A wolf in sheep's clothing V a son of a gun*, with an idiomatic subject and direct object but an open verb position. This seems correct.

A second potential idiom pattern that the Continuity Constraint rules out involves verb-genitive sequences. While we find idioms consisting of a verb, the head of its complement and a genitive licensed by that element (e.g., *play the devil’s advocate*), there are no idioms that consist of just the verb and a genitive, with the following head position left open (e.g., *play the devil’s x*, where x could be filled by any pragmatically appropriate noun - *brother, financial advisor*, and so on). This is just what the Continuity Constraint predicts, as (20) helps illustrate:

(20)a. permissible idiom

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play the devil’s advocate
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b. illicit idiom

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* the chain is broken here since x is not part of the idiom
play the devil’s x
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The illicit (20b) does not form a continuous chain since the head of the verb's complement is not part of the idiom and there is no licensing relation between the verb and the genitive. As Baltin (1989, p. 6) notes, verb-determiner idioms are also impossible, for essentially the same reason.

A similar prediction involves V-PP sequences. In particular, there should be no idioms consisting of a verb and an NP inside its PP complement, with the choice of preposition left open. This also seems correct. There are many idioms such as *beat around the bush*, which consists of the verb, the preposition that it licenses, and the complement selected by the preposition. However, *beat* and *(the) bush* cannot form an idiom that allows free substitution in the preposition position. For example, *beat
through the bush and beat by the bush are not idioms, even though the substituted prepositions seem as pragmatically felicitous as around. This is as expected, since no head-to-head relation holds between the verb and the noun heading the NP in these patterns:

(21)a. permissible idiom

\[
\text{beat} \xrightarrow{} \text{around the bush}
\]

b. illicit idiom

\[
\text{beat [op \text{ } x \text{ the bush}]} \quad \star
\]

the chain is broken since \(x\) is not part of the idiom

The Continuity Constraint is intended as a restriction on the organization of idioms as lexical entries, not on their interaction with other phenomena. I accept Nunberg et al.'s thesis that idioms are 'combining expressions' capable in principle of undergoing the same type of syntactic and semantic processes that affect nonidiomatic phrases. In some cases, these processes may have the effect of breaking apart an idiom, distributing its pieces in different clauses.\(^4\)

(22)a. Raising:

*All hell seemed to break loose.*

b. Tough movement:

*The law can be hard to lay down.* (Nunberg et al., p. 517)

c. Control:

*Birds of a feather like to flock together.* (Nunberg et al., p. 517)

d. Relativization:

The *strings* that Pat *pulled* got Chris the job.

However, the existence of such patterns does not undermine the Continuity Constraint, which regulates idioms *qua* lexical entries, not the particular uses to which they are put. Thus, *all hell* and *break loose* may be in different clauses in (22a), but the idiom of which they form a part (as well as all the other idioms in these examples) complies with the Continuity Constraint.

\(^4\) Idioms resist these processes to varying degrees, but I know of no grammatical account of this phenomenon; for further discussion, see Fraser (1970), Ruwet (1991), Nunberg et al. (1994), and Langacker (1995), among others.
(23)  

All hell break loose

In sum, I have proposed that idioms are subject to a grammatical condition (the Continuity Constraint) requiring that they be reducible to a chain of head to head relations. In the prototypical case, the terms in these relations are particular lexical items, but small lexical classes are permitted as well, especially in the case of more transparent idioms. As I have tried to show, the Continuity Constraint not only characterizes the internal organization of extant idioms but also makes correct predictions about the type of idioms that cannot occur.

On the view adopted here, the creation of an idiom involves two parallel mechanisms - one grammatical and the other semantic. In particular, idioms are formed when a particular chain of heads takes on a figurative sense, creating a form-meaning pair that speakers feel is worth preserving in the lexicon of their language. The theory of grammar has nothing to say about why particular meanings are more likely than others to be extended figuratively or why some figures of speech are more appealing than others. But if the idea put forward here is right, grammatical theory does have something very important to say about the internal organization of the forms to which figurative meanings can be assigned. In particular, they must constitute a chain of heads in the sense of the Continuity Constraint.

1.3. **Idioms as Constructions**

Although I propose the Continuity Constraint as a restriction on idioms, it is conceivable that it has a much broader role in the grammar. One area that seems particularly worthy of investigation has to do with the characterization of 'constructions' - the form-meaning-function complexes

5 It is unclear how or whether idioms such as the following, all of which involve a coordinate structure, comply with the Continuity Constraint:

(1)

by hook or by crook
an eye for an eye and a tooth for a tooth
the birds and the bees
cack or clam
lock, stock and barrel

Although the lexical items within each of the conjuncts form a chain in the required sense, no licensing relation exists between them unless we treat conjunctions as heads that license the conjuncts, a possibility explored in different ways by Sharista (1988, p. 246ff.), Munn (1992) and Johannessen (1996), among others. For discussion of a possible constraint limiting the number of conjuncts in idioms, see Austin and Kuiper (1988).
that have come to the forefront of syntactic analysis in some recent work (e.g., Fillmore 1988; Goldberg 1992; Michaelis and Lambrecht 1996).

Prototypical examples of constructions include patterns such as *Subject Verb Object Object*, *Subject Verb Object Oblique*, and *Subject Verb Oblique*. To my knowledge, though, patterns such as *Verb + Genitive* or *Subject + Object* never count as constructions in the intended sense. This raises the possibility that the patterns that qualify for construction status are reducible to a chain of heads, in accordance with a generalized version of the Continuity Constraint:

(24) **The Continuity Constraint** (generalized):
    A construction's component parts must form a chain.

If this is right, we could take idioms to be a type of construction, as also suggested by Nunberg et al. (1991, p. 507). They would be special only in that the links in the underlying chain are specific words or, at most, very small sets of words. In contrast, ordinary constructions can be characterized with reference either to syntactic categories or to large semantically circumscribed classes of lexical items. For example, the double object pattern can be described in terms of the chain depicted in (25), with $V^*$ standing for the various classes of verbs that can take two nominal complements (Pinker 1989; Goldberg 1992):

(25) $V^*$ $N$ $N$

There is no reason to think that there should be a sharp dividing line between idioms on the one hand and ordinary constructions on the other. Indeed, given that idioms differ from each other in terms of their degree of opacity and conventionality (see above), it seems plausible to think that constructions in general might form a continuum along which patterns exhibiting various degrees of idiomaticity and productivity are located, subject only to the requirement that they satisfy the Continuity Constraint. If this is so, then it would not be surprising to find hybrid constructions, parts of which are idiomatic (i.e., opaque and conventionalized) and parts of which allow relatively free substitution of lexical items that retain their literal meaning. In fact, patterns of this sort do seem to exist:

(26)a. *Y* one's heart out (work/sing/play/dream/exercise one's heart out)

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However, nonidiomatic constructions seem in general to be shorter (i.e., to have fewer links in their associated chain) than do idioms. I take no position here on whether this is a principled difference.
b. V one's head/ass/butt off (work/study/play/exercise/cry one's head off)
c. V up a storm (work/walk/talk up a storm)

In patterns such as these, which were drawn to my attention by an anonymous referee, the noun and particle are idiom-like in having lost their literal meaning and in permitting little or no substitution (cf. *work one's brain out, *talk one's mouth off). In contrast, the verb position can be filled by a relatively large class of lexical items whose literal meaning remains more or less intact. The verb is nonetheless a vital part of the construction, since the noun and particle cannot occur in the intended sense without it even in contexts where noun-particle combinations are otherwise permitted:

(27)a. *Harry worked so much that he left with his heart out.
      (cf. Harry left with his shirt out.)

b. *Bob talked so much that he arrived with his head off.
      (cf. Bob arrived with his hat off.)

Are there any constraints on the hybrid patterns exemplified in (26), beyond the requirement that they comply with the Continuity Constraint? One possibility is that the idiomatic portion of hybrid idioms must form a sub-chain within the larger chain that underlies the entire construction. If the patterns in (26) are to comply with this requirement, there would have to be a licensing relation between the nominal and the particle, presumably with the particle as a head and the nominal as its semantic argument.

Such a relation may well exist. In many transparent verb-particle constructions (e.g., I flicked the mosquito off), the particle functions as a resultative predicate that takes the nominal as a semantic argument just as the adjective does in patterns such as I painted the house red (Kayne 1984, p. 121; den Dikken 1995). Such a function seems at least partly discernible in the patterns in (26) as well. If we adopt Carrier and Randall’s (1992) proposal that the resultative predicate is an argument of the verb and that the direct object is a semantic argument of both the verb and the resultative predicate, these patterns will have the organization depicted in (28), with the verb and the particle jointly licensing the direct object:

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7 Buzzio (1986, p. 161) suggests that patterns such as (26a) require an unergative verb; cf. *He fell his heart out.
Consistent with the generalized version of the Continuity Constraint, the entire construction can be reduced to a chain of head-to-head relations. Moreover, consistent with our earlier characterization of idioms, the noun and particle form a subchain within the larger construction.

If this view of hybrid constructions is right, then we predict that there should be no patterns consisting of open verb position and two idiomatic elements that bear no relationship to each other—i.e., patterns of the type $V,NP_{idiom},NP_{idiom}$ or $V,NP_{idiom},Adv_{idiom}$. This seems right. While there are idioms consisting of a verb and two objects (e.g., *give the devil his due*—see section 2.4), hybrid constructions consisting of an open verb position and two idiomatic NPs seem not to exist. Similarly, while there are idioms consisting of a verb, a direct object, and an adverbal phrase (e.g., *count one’s chickens before they’re hatched*), there seems to be no hybrid construction consisting of an open verb position with an idiomatic direct object and adverbal phrase.

Rather than trying to explore the character of constructions in a more general way here, I will maintain my focus on prototypical idioms, making use of the Continuity Constraint to reassess a controversy concerning the relationship between idioms and argument structure.

2. Idioms and Argument Structure

An important claim within contemporary syntactic research is that a verb’s arguments do not make up an unstructured array. Rather, it is proposed, they are arranged in accordance with the following thematic hierarchy (Bach 1980, Carrier-Duncan 1985, Kiparsky 1987, Pollard and Sag 1987, Larson 1988, Baker 1989, Speas 1990, Jackendoff 1990):¹

(29) $agent > theme > goal/location$

Since no verbs subcategorize for both a goal and a location argument, these two roles are assigned the same rank in the hierarchy: a similar practice is adopted by Jackendoff (1972, p. 43) and Grimshaw (1990, p. 8), among others.

Argument asymmetries have been claimed to be relevant to a wide

¹ The precise characterization of individual thematic roles is, of course, problematic. I follow Pinker (1989) and Jackendoff (1990) in regarding thematic roles as informal labels for particular positions in conceptual structure.
range of phenomena, including the architecture of idioms. For example, in an unpublished manuscript Kiparsky (1987, pp. 35–36) suggests that idioms built around a multiple-argument verb must include a continuous (sub)set of that verb’s arguments, beginning with the least prominent one, as determined by the thematic hierarchy. Kiparsky outlines this proposal only briefly, devoting less than a page to it and considering relatively few examples. I will try to develop the idea in more detail here, providing refinements not considered by Kiparsky and demonstrating that certain apparent counterexamples to this constraint vanish in light of the insights into idiom organization underlying the Continuity Constraint.

2.1. The Hierarchy Constraint

I will begin my discussion of these matters by reformulating Kiparsky’s suggestion as (30):

(30) The Hierarchy Constraint

Any arguments that are part of a verbal idiom must be lower on the hierarchy than arguments that are not part of the idiom.

Three provisos are necessary before proceeding. First, like the Continuity Constraint, the Hierarchy Constraint applies to the ‘dictionary form’ of idioms, not the particular patterns into which they are arranged in actual sentences. We thus abstract away the effects of operations such as raising, wh-movement, control, and so on.

Second, consistent with the proposal developed in the preceding section and embodied in the Continuity Constraint, I assume that the Hierarchy Constraint is sensitive to head-to-head relations. Thus the term ‘argument’ in (30) and in the discussion that follows should be taken as shorthand for ‘head of an argument’. As we will see in due course, this stipulation has important implications for the analysis of idioms containing PP arguments (e.g., fortune smiled on x, light a fire under x).

Third, I take (30) to be a constraint on the creation of idioms. As noted by Patrick Farrell (p.c.), idioms themselves are sometimes too opaque for thematic role categories (or the equivalent) to be identifiable. For example, the bucket in kick the bucket ‘die’ can hardly be counted as a

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9 Among the phenomena that are thought to be sensitive to the thematic hierarchy are the mapping of arguments onto grammatical relations (e.g., Carrier-Duncan 1985; Grimshaw 1990), control (Nishigauchi 1984), reflexivization and other types of binding (Larson 1988; Jackendoff 1992), passivization (O’Grady 1982; Larson 1986), light verbs (Grimshaw and Mester 1988), and the relative prominence of NPs in syntactic structure (Larson 1988, Hoekstra 1991).
theme argument in the case of the idiom, although it arguably does have this status in the VP from which the idiom evolved.

Given the thematic hierarchy $ag \rightarrow th \rightarrow go/loc$, the Hierarchy Constraint makes a number of predictions about the form of sub-sentential idioms. For instance, it predicts that a verb with the argument structure (ag,th) or (ag,go/loc) should be able to join with its internal argument to yield an idiom that excludes the more prominent agent. However, an idiom consisting of such a verb and just its agent argument – to the exclusion of the less prominent internal argument – should be impossible.

The Hierarchy Constraint also predicts that verbs of the (th,loc) and (th,goal) type should be able to occur in idioms that include the goal or location argument while excluding the theme. Moreover, on the widely accepted assumption that the most prominent of a verb’s arguments is realized as subject, we expect verbs of this type to occur in sentential idioms with a theme subject and a goal or locative complement, but not vice versa.

Finally, we expect triadic verbs of the (ag th go/loc) type to occur in idioms that include just the goal/location argument or both this argument and the theme. However, there should be no idioms consisting of the verb and just its agent argument, or the verb and just its agent and theme arguments.

Table 1 summarizes these predictions.

<table>
<thead>
<tr>
<th>Possible Patterns</th>
<th>Impossible patterns</th>
</tr>
</thead>
<tbody>
<tr>
<td>dyadic $V \rightarrow$ theme</td>
<td>agent + dyadic verb</td>
</tr>
<tr>
<td>dyadic $V \rightarrow$ goal/loc</td>
<td>theme + dyadic verb</td>
</tr>
<tr>
<td>theme + dyadic $V \rightarrow$ goal/loc</td>
<td>goal/loc + dyadic verb + theme</td>
</tr>
<tr>
<td>triadic $V \rightarrow$ goal/loc</td>
<td>agent + triadic $V$</td>
</tr>
<tr>
<td>triadic $V \rightarrow$ theme + goal/loc</td>
<td>agent + triadic $V +$ theme</td>
</tr>
</tbody>
</table>

The assessment of these predictions with respect to English idioms points to two conclusions. First, unlike the Continuity Constraint, the Hierarchy Constraint is apparently not an absolute restriction on idioms: it can be violated, although it does seem to capture a very strong tendency. Second, the form and distribution of idioms involving triadic verbs strongly suggests that double object verbs have an argument structure that differs in a systematic way from that of their prepositional dative counterparts.

2.2. Dyadic Verbs

As just noted, the Hierarchy Constraint predicts that a dyadic verb should be able to join with either its theme or its goal/location argument to form
an idiom that excludes the more prominent agent. In support of this prediction, Marantz (1984, p. 27) observes that English has created "countless" idioms from a verb and its theme argument:

(31) Some idioms consisting of a dyadic verb and its theme argument
    rock the boat kick the bucket bite the dust
    hit the road take the cake lift a finger
    settle a score steal the show smell a rat
    hold the fort win the battle make a face
    pop the question rob the cradle save the day
    hit the spot draw the line drop a bombshell
    see better days do the honors burn the midnight oil

There are also many idioms that consist of a verb and a locative or goal argument to the exclusion of the agent:

(32) Some idioms consisting of a dyadic verb and its goal or location argument
    grasp at straws skate on thin ice knock on wood
    start from scratch come to the point swim against the current
    sit on one's hands read between the lines beat around the bush
    stick to one's guns pay through the nose jump on the bandwagon

The Hierarchy Constraint also predicts that no idiom should consist solely of a transitive verb and its agent argument since such an expression would not include the less prominent internal argument. The essential correctness of this prediction has been noted independently by Chafe (1970, p. 104), Keenan (1976, p. 318), Marantz (1984, p. 27), and Ruwet (1991, p. 248ff.). However, a small number of apparent counterexamples have also been brought forward:

(33) (Heaven/God/Jesus help X (attributed by Baltin 1980, p. 16, to T. Wasow)

(34) The spirit moved x (to . . . ) apparently first noted by A. Manastier-Ramer)

(35) What's eating x? (Bresnan 1982, p. 350)

(36) A little birdie told x . . . (e.g., A little birdie told me that you were engaged.) (noted by Nunberg et al. 1994, p. 526)

(37) The lovebug bit x (drawn to my attention in 1985 by Yoshihiko Suzuki)
Wild horses couldn’t drag x away (from y)/pull x apart/tear x apart

Each of these idioms appears to consist of an agentive subject and a dyadic verb, in violation of the Hierarchy Constraint. I take such patterns to be bona fide counterexamples to the proposed constraint, effectively undermining its status as an absolute restriction on idioms. However, these patterns themselves have properties that point to the need to rethink rather than reject a role for argument structure asymmetries in the study of idioms and their structure.

As first noted by Ruwet (1991, p. 248), agent-verb idioms never approach the semantic opacity possible in verb-theme idioms (e.g., kick the bucket, hit the spot, take the cake, bite the dust, shoot the breeze, chew the fat and so forth). Indeed, some of the putative agent-verb idioms mentioned above, such as those in (33), are so transparent that some commentators (e.g., Baltin 1989, p. 16) do not consider them to be idioms at all.

The remaining patterns exhibit some degree of semantic opacity, but this seems largely attributable to the NP. In (34), for example, the verb is attested with the same meaning outside the idiom (e.g., Your speech moved me to take action), and the verb in (35) has a related use in patterns such as Remorse over the accident is really eating at Harry (although there is perhaps an added implication here of an obsessive preoccupation, as observed by an anonymous reader). Similarly, tell in (36) has its literal meaning of ‘inform’, and bite in (37) has a relatively standard sense as well (given the interpretation of lovebug). In (38), only wild horses has an

10 It might be suggested that truly opaque and/or noncompositional idioms are all phrases, which would prejudice the existence of nontransparent subject-verb idioms on independent grounds. However, as the following examples show, there are opaque and/or noncompositional idioms that do not constitute phrases in conventional theories of sentence architecture:

(i)

get x’s feet wet
x’s ship came in
The cat’s got x’s tongue
tell x down the river

Moreover, in examples such as the following (observed by Nunberg et al., note 19) nondecomposable idioms are interrupted by a modifier and therefore no longer make up a syntactic phrase.

(ii) kick the proverbial bucket
hit the right spot

Interestingly, two colleagues inform me that they permit this idiom only in the passive – i.e., as it was bitten by the lovebug. Assuming that the downdragging of the agent associated with passivization gives the argument structure (th, by-ag), with the theme more prominent than the agent, this version of the idiom would comply with the Hierarchy Constraint.
unconventional meaning, the verb of separation has the same (sometimes metaphorical) sense found in nonidioms such as I couldn't drag/tare him away from his work.

In the case of verb-complement idioms, in contrast, there is considerably more variation. While the NP does appear to be more idiomatic than the verb in some expressions of this type (e.g., lose steam, eat humble pie), there are also patterns in which the reverse seems to be true (e.g., pack a punch, pop the question, pound the pavement), as well as patterns in which the two constituents have roughly the same status (e.g., spill the beans, chew the fat).

Now let us consider idioms formed from verbs with a (th,go/loc) argument structure. Consistent with the predictions made by the Hierarchy Constraint, there are many verb-goal/location idioms with an open theme position:

(39) Some idioms consisting of dyadic verb and a goal/location argument

| be in hot water | be up the creek without a paddle |
| come down to earth | be down in the dumps |
| fall off the wagon | come to one's senses |
| wither on the vine | die with one's boots on |
| fall in line | fall by the wayside |
| slip through x's fingers | go down in history |
| go by the board |

Also as predicted, there are many sentential idioms in which the theme is realized as subject and the goal or location argument as complement:

(40) Sentential idioms with a theme subject and a goal/location complement

The cat is out of the bag.
The fat is in the fire.
The jig/game is up.
The grass is always greener on the other side of the fence.
X's hair stood on end.
Lightning never strikes twice in the same place.
The shoe is on the other foot.
X's heart is in the right place.

A further prediction of the Hierarchy Constraint is that there should be no idioms containing a theme subject and an open goal or locative position.
Interestingly, there are apparent examples of such idioms, as Breman (1982, pp. 350–51), Marantz (1984, p. 30), Pulman (1993, p. 256) and Nunberg et al. (1994, p. 525) have all observed:

(41a) Fortune smiled on x.
    b. The ceiling caved in on x.
    c. The bottom fell out of x.
    d. Time’s up for x.

Contrary to initial appearances, however, these idioms can be shown to comply with the Hierarchy Constraint. The key insight comes from the idea, explicit in the Continuity Constraint, that idioms must be reducible to a chain of head to head relations. Notice in this regard that while the idioms exemplified in (41) do not include a full locative PP, they do include the preposition that is its head. In the case *Fortune smiled on Harry*, for example, the preposition is clearly part of the atom, as shown by the fact that free substitution is not possible even when the new item is compatible with the overall meaning of the idiom:

(42) Fortune smiled on/*for Harry.

The same seems to be true of other idioms of this type as well – the choice of preposition is more constrained than when the verbs in question are used nonidiomatically.\(^\text{12}\)

(43a) The ceiling caved in on/around/*on top of/*all over/*near John.
    b. The bottom fell out of/*from the proposal.

Seen in this way, then, the idiom exemplified in (41a) is built around the verb *smile*, which licenses the N *fortune* as the head of its theme argument, and the preposition *on* as the head of its locative argument:

(44)

Such idioms are therefore very similar to sentential idioms such as *the fat is in the fire* or *x’s hair stood on end*. Both types of patterns are built around a verb that licenses the prepositional head of its locative argument in addition to the nominal head of its subject (theme) argument. The difference is simply that whereas the preposition in idioms of the *fortune*...
smiled-type does not select a particular lexical item as head of its complement phrase, its counterparts in the full sentential idioms do. Both types of idioms are therefore consistent with the Hierarchy Constraint, since the underlying licensing relations involve both the theme and the locative complement and not just the theme argument.

More problematic, though, is the example in (45):

(45) The buck stops Loc

As Nunberg et al. (1994, p. 527n.) observe, this idiom has an obligatory locative argument, but that argument seems not to be part of the idiom, as shown by the fact that it permits more or less free substitution. The following examples from the New York Times were provided by an anonymous referee:

(46) The buck stops with the governor.
    “This is where the buck stops”, said Michael Resnick, the association’s assistant executive director for federal relations.
    “Wherever the buck stopped before, it will stop with me now”, Reacy promised.

I believe that this is a genuine counterexample to the Hierarchy Constraint. However, like the comparable problematic examples of agent-verb idioms considered earlier, patterns of this type are notable both for their infrequency and for their relative semantic transparency.

The infrequency and semantic transparency of idioms that violate the Hierarchy Constraint suggests that argument structure is relevant to idioms, albeit in a way that is not yet fully understood, and that there is a strong tendency for idioms built around dyadic verbs to include arguments from the lower part of the hierarchy. As we will see in the next section, idioms formed from triadic verbs exhibit similar properties.

2.3. Triadic Verbs

As noted earlier, the Hierarchy Constraint permits a triadic verb of the (ag,th,go/loc) type to form an idiom with its goal or location argument, but not with its theme argument. Two subtypes of triadic verbs must be considered: prepositional dative/locative constructions and ‘double object’ patterns. I will focus on the first option in this section and turn my attention to the second possibility in the section that follows.

Drawing on facts first observed by Emmonds (1972), Lasson (1988, pp. 340–41) notes that a verb and its goal argument can form an idiom:
(47)a. Lazorda sent his starting pitcher to the showers.
b. Marty took Felix to the cleaners.
c. Felix threw Oscar to the wolves.

Other examples of this type are given in (48):

(48) Some idioms consisting of a triadic verb and its goal argument

<table>
<thead>
<tr>
<th>carry x to extremes</th>
<th>bore x to tears</th>
<th>bring x to light</th>
</tr>
</thead>
<tbody>
<tr>
<td>cut x to the bone</td>
<td>run x into the ground</td>
<td>feed x to the lions</td>
</tr>
<tr>
<td>hold x to y’s promise</td>
<td>take x to heart</td>
<td>beat x into y’s head</td>
</tr>
<tr>
<td>nail x to the wall</td>
<td>push x to the edge</td>
<td></td>
</tr>
</tbody>
</table>

In a footnote, Larson (ibid., p. 341n.) observes that idioms consisting of a triadic verb and its locative argument also exist:

(49) Mary put John through the wringer.
     Mary took John in marriage.

Additional examples of this sort include the patterns in (50):

(50) Some idioms consisting of a triadic verb and its locative argument

<table>
<thead>
<tr>
<th>leave x in the lurch</th>
<th>rake x over the coals</th>
<th>take x at x’s word</th>
</tr>
</thead>
<tbody>
<tr>
<td>keep x under one’s hat</td>
<td>hit x between the eyes</td>
<td>lay x at y’s door</td>
</tr>
<tr>
<td>put x on the map</td>
<td>lay x on the line</td>
<td>put x in x’s place</td>
</tr>
<tr>
<td>sell x down the river</td>
<td>wrap x around one’s little finger</td>
<td></td>
</tr>
</tbody>
</table>

In addition to permitting idioms of these types, the Hierarchy Constraint predicts that there should be no idioms consisting of a triadic verb and its theme argument with an open goal or locative position. At first glance, this prediction seems to be incorrect since expressions of this sort are apparently quite common, as the following examples help illustrate:

(51) Apparent examples of idioms consisting of a triadic verb and its theme argument

<table>
<thead>
<tr>
<th>throw the book at x</th>
<th>pass the buck to x</th>
<th>give a wide berth to x</th>
</tr>
</thead>
<tbody>
<tr>
<td>give voice to x</td>
<td>hold a candle to x</td>
<td>set eyes on x</td>
</tr>
<tr>
<td>lower the boom on x</td>
<td>turn up one’s nose at x</td>
<td>poke fun at x</td>
</tr>
<tr>
<td>build a fire under x</td>
<td>turn a blind eye to x</td>
<td>shed light on x</td>
</tr>
<tr>
<td>lend color to x</td>
<td>put one’s heart into x</td>
<td>lend a hand to x</td>
</tr>
<tr>
<td>ride herd on x</td>
<td>sink one’s teeth into x</td>
<td>pull the rug out from under x</td>
</tr>
</tbody>
</table>
throw a punch at x  throw cold water on x  take off one's hat to x
lay hands on x  open one's heart to x  thumb one's nose at x
put the moves on x  throw a monkey wrench into x

However, these expressions only appear to be simple verb-theme idioms. In actual fact, the preposition heading the verb's location or goal argument is an integral part of the idiom. This can be seen most clearly by considering patterns such as the following:

(52) throw the book at x
    throw a monkey wrench into x
    throw cold water on x

As these examples show, _throw_ can appear with at least three different prepositions in idioms (four, if we count the verb-goal idiom _throw x to the wolves_). Crucially, however, the choice of preposition in each case is fixed: free substitution of other prepositions, even those that are pragmatically appropriate, is not permitted. Sentences such as the following are perfectly grammatical, but they do not have an idiomatic interpretation:

(53)a. The judge threw the book to Harry.
    b. The stranger threw a monkey wrench at John's plans.
    c. Parents always throw cold water into children's parties.

This suggests that the idioms in question include the preposition. That is, as depicted in (54), they involve a licensing relationship between the verb and the head of its theme argument and the head of its locative or goal argument, consistent with the Hierarchy Constraint.

(54) throw the book at x

A similar point can be made about the other examples in (51). In each case, the preposition is as much a part of the idiom as the theme is. That is why phrases such as _lower the boom near John, take off one's hat for Harry, and build a fire over Sue_, while syntactically well formed and pragmatically plausible, lack an idiomatic interpretation (cf. _lower the boom on John, take off one's hat to Harry, and build a fire under Sue_, respectively).\(^{13}\)

\(^{13}\)This is not to say that no substitution is possible: as observed earlier, the terms in the head-to-head relations underlying idioms can sometimes be lexical subclasses. The idiom _light a fire under x_ is a case in point, permitting substitution of other subcessive prepositions.
In sum, once it is recognized that the internal organization of idioms is to be understood in terms of a chain of head-to-head relations, the patterns exemplified in (51) fall in line with the Hierarchy Constraint, since each consists of the verb, its theme argument, and (the head of) its locative or goal argument. Such idioms thus differ only minimally from expressions such as hit the nail on the head, take candy from a baby, and put words into x’s mouth, in which the prepositional head of the locative or goal argument does select a particular complement.

Nothing in the proposed analysis rules out idioms that consist of a verb, a theme, and an optional goal or location argument. Thus, it is not surprising to find utterances like She agreed to lend a hand and Next time, I will really lower the boom, which lack any sign of a goal or location argument. There is no violation of the Hierarchy Constraint here, since the process of argument suppression, which is widely used for nonidiomatic phrases as well, results in the locative/goal position being eliminated rather than freely filled. The resulting idiom consists of a dyadic verb and its theme argument, an option that is fully compatible with the Hierarchy Constraint.

There is, however, at least one true counterexample to the Hierarchy Constraint among idioms formed from triadic verbs, namely, set foot. As observed by Nunberg et al. (1994, p. 527n.), set takes an obligatory locative argument, but that argument seems not to be part of the idiom, as shown by the fact that it permits more or less free substitution. The first two examples in (55) are from A Dictionary of American Idioms and (cf. light a fire beneath/underneath/below x). Crucially, though, this sort of substitution is far more constrained than in the case of nonidioms involving the same verb (cf. light a fire on the roof in the foresinex to the house/over the grave).

14. The Hierarchy Constraint is also not challenged by the existence of patterns such as the following:

(i) I gave a piece of my mind to the cashier who overcharged me.
(ii) Harvey told a thing or two to the people who had criticized his theory.
(iii) Ray would give the shirt off his back to someone who needed it.

Because the lexical item to is an invariant part of the prepositional version of these idioms (cf. *I gave a piece of my mind for the cashier, etc.), the verb in the to-dative pattern licenses both the N head of its theme and the preposition to that heads its goal argument, as required by the Hierarchy Constraint:

![Diagram showing the pattern](image)

This pattern is thus parallel in the relevant respects to the constructions exemplified in (51).
the remainder from the *New York Times*, courtesy of an anonymous referee:

(55) She would not let him set foot across her threshold.
    She told the boy not to set foot out of the house until he had
    finished supper.
    And he never had to set foot in a store.
    ... it was the only time the offense set foot inside the New
    Orleans 34-yard line.
    From the moment we set foot here, I find I have become more
    than a witness.
    On his release in February 1989, he said, a restriction order
    forbade him to set foot on school premises.
    “People who refuse to go in, who are so afraid they can’t even
    set foot past the door, of course automatically qualify”.

Like the other counterexamples to the Hierarchy Constraint we have
considered, this pattern is notable both for its rarity among idioms formed
from triadic verbs and for its relative semantic transparency. We are thus
left with our earlier conclusion that the Hierarchy Constraint, while not
without exceptions, nonetheless captures a fundamental tendency in idiom
structure. I will return to this point in section 2.5, putting forward a
possible motivation for this tendency and assessing an alternative charac-
terization of the facts. First, though, it is necessary to consider the status
of idioms involving double object verbs.

2.4. Double Object Verbs

Thus far, I have deliberately avoided considering patterns in which a
triadic verb takes two NP complements (e.g., send Harry a letter and so
forth). If such verbs have a (ag,th,go) argument structure, the Hierarchy
Constraint predicts that there should be double object idioms consisting
of just the verb and its goal argument, but no verb-theme idioms that
exclude the goal:

(56) Predicted to exist: ditrans. verb+goal
    Predicted not to exist: ditrans. verb+theme

In fact, the opposite seems to be true. As the examples in (57) and (58)
demonstrate, there are numerous idioms consisting of a ditransitive verb
and its theme argument with an open goal position (Green 1974; Oehrle
(57/a) Mary showed Bob the door.
b. The committee gave Harry the green light.

<table>
<thead>
<tr>
<th>give x the cold shoulder</th>
<th>give x a hand</th>
<th>give x a piece of one’s mind</th>
</tr>
</thead>
<tbody>
<tr>
<td>give x the creeps</td>
<td>give x the slip</td>
<td>give x the shirt off one’s back</td>
</tr>
<tr>
<td>promise x the moon</td>
<td>teach x a lesson</td>
<td>throw x a curve</td>
</tr>
<tr>
<td>show x the light</td>
<td>read x the riot act</td>
<td>give x x's walking papers</td>
</tr>
<tr>
<td>tell x a thing or two</td>
<td>give x a wide berth</td>
<td>show x the ropes</td>
</tr>
<tr>
<td>lend x a hand</td>
<td>give x x's due</td>
<td>tell x where to get off</td>
</tr>
</tbody>
</table>

At the same time, there are apparently no idioms formed from a ditransitive verb and just its goal argument (a fact also noted by Hudson 1990, p. 262). Whereas we find verb-goal idioms such as *throw x to the wolves* and *feed x to the lions* in the to-dative pattern, their double object counterparts seem not to have an idiomatic reading, although a literal interpretation is at least marginally possible:

(59) We threw the wolves John and his collaborators.
We fed the lions Sue and her friends.

There are at least two possible explanations for these facts, both involving the idea that the argument structure of double object verbs is different from that of prepositional datives.

One possibility, put forward by Kiparsky (1987), is that double object verbs have the argument structure (agent, recipient, theme), compared to (agent, theme, goal) for prepositional datives.15

(60)a. prepositional dative pattern: (ag, th, go) (e.g., *give a book to Mary*)
b. double object pattern: (ag, recip, th) (e.g., *give Mary a book*)

Adopting Kiparsky’s assumption that the thematic hierarchy places themes lower than recipients but higher than goals (i.e., agent > recipient > theme > goal . . .), the Hierarchy Constraint will correctly license verb-

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15 In the analysis proposed by Jakobson (1990, p. 366), double object verbs have the argument structure (agent, beneficiary, theme); see also Rappaport and Levin (1988, p. 21n.) and Wilkins (1988, p. 209).
theme idioms in double object constructions and verb-goal idioms elsewhere.

A second possibility, put forward in different forms by Dowty (1982) and Hoekstra (1991), is that 'dative advancement' involves a reorganization of the verb's argument structure, parallel to what happens in the case of passivization. Thus, whereas the verb's least prominent argument corresponds to the goal in the prepositional dative pattern, the theme has this status in the double object construction:

(61)a. Argument structure of a to-dative verb: ⟨agent, theme, goal⟩
b. Argument structure of a double object verb: ⟨agent, goal, theme⟩

Given these argument structures, the Hierarchy Constraint correctly predicts that the to-dative pattern will permit verb-goal idioms and that the double object structure will manifest verb-theme idioms, but not vice versa.

Regardless of which view one adopts, there is independent evidence that the argument structure of double object verbs is different from that of their prepositional dative counterparts. As is well known, the two constructions differ in terms of the argument that is promoted to subject following passivization – the theme advances in prepositional dative patterns (A book was given to Mary) versus the other internal argument in double object constructions (Mary was given a book).

In sum, the study of idioms formed from triadic verbs offers support for the view that the dative alternation involves more than just a change in word order and suppression of a preposition. There is apparently also a fundamental difference in argument structure, with the goal-like argument more prominent than the theme in the double object pattern, due either to a shift in the relative prominence of the two arguments or to the reanalysis of the goal as a recipient or beneficiary. In either case, this change is directly reflected in the architecture of the relevant idioms: idioms built from a prepositional dative verb can include just the goal argument while idioms formed from a double object verb can include just the theme, but not vice versa.

2.5. A Semantic Alternative to the Hierarchy Constraint

The data considered thus far suggest that the Hierarchy Constraint, and therefore argument structure, has a role to play in regulating the creation of idioms. A quite different interpretation of the same facts is put forward by Nunberg et al. (1994), who propose that many of the asymmetries
predicted by the Hierarchy Constraint follow from a tendency for idiomatic NPs to have inanimate literal meanings (p. 527). Since agents and goals tend to be animate, they argue, the low proportion of idioms containing NPs bearing these roles is not surprising. On this account, then, no grammatical explanation is required for the rarity of idioms consisting of a dyadic verb and its agent argument or a ditransitive verb and its goal argument.

At first glance, Nunberg et al.'s generalization seems to be undermined by the existence of idioms such as the following, which include animate NPs:

(62)

\[
\begin{align*}
\text{pay the devil his due} & \quad \text{feed } x \text{ to the lions} \\
\text{throw } x \text{ to the wolves} & \quad \text{pay the piper} \\
\text{take candy from a baby} & \quad \text{cling to one's mother's apron strings} \\
\text{the early bird gets the worm} & \quad \text{rob Peter to pay Paul} \\
\text{back the wrong horse} & \quad \text{let sleeping dogs lie} \\
\text{hit a man when he's down} & \quad \text{separate the men from the boys} \\
\text{look a gift horse in the mouth} & \quad \text{throw the baby out with the bath water}
\end{align*}
\]

However, as Nunberg et al. note, the NPs in most of these expressions “tend overwhelmingly to have idiomatic meanings that apply either exclusively to inanimates or to both animates and inanimates” (p. 528). In the following examples, for instance, an originally animate NP takes an inanimate referent when used idiomatically.

(63)a. If you don't exercise and don't eat right, you'll have to pay the piper.

b. If you think behaviorism can account for those facts, you're backing the wrong horse.

c. If you take money from this account to pay that bill, you'll just be robbing Peter to pay Paul.

d. In rejecting the entire proposal, you're throwing the baby out with the bath water.

Nonetheless, an important asymmetry remains unexplained. In particular, we must ask why the originally animate NPs that do occur in idioms (with or without animate referents) show up so rarely in subject position, even in contexts where they could have inanimate referents. Take, for example, the NP the wrong horse, which can be used to refer idiomatically “to someone or something in competition with other things or persons” (Nunberg et al. 1994, p. 530). This NP occurs in a verb-object idiom (back the
wrong horse), but there is no subject verb idiom such as the wrong horse impressed x even though impress allows a subject with an inanimate referent. Similarly, the NP the piper can be used (with an animate or inanimate referent) in the verb-object idiom pay the piper, but we have no subject-verb idiom of the type the piper made x pay even though make in general permits its subject to have an inanimate referent. These facts follow straightfromly from the Hierarchy Constraint, which rules out idioms consisting of a transitive verb and only its external argument, but it is not clear how they can be explained on the animacy-based account.

A second challenge for Nunberg et al.’s proposal involves the apparent existence of asymmetries involving theme and location arguments, neither of which is characteristically animate. In particular, as noted by Kiparsky (cited by Nunberg et al. 1994, p. 527n.), the animacy-based account offers no explanation for the frequency of verb-location idioms with an open theme position:

(39) Some idioms consisting of dyadic verb and a location argument
be in hot water be up the creek without a paddle
come down to earth be in the dumps
fall off the wagon come to one’s senses
wither on the vine go by the board
fall in line fall by the wayside
fall through x’s fingers go down in history

(50) Some idioms consisting of a triadic verb and its locative argument
leave x in the
lurch rake x over the coals take x at x’s word
keep x under the one’s hat hit x between the eyes lay x at y’s door
put x on the map lay x on the line wrap x around put x in x’s place
sell x down the river one’s little finger

Nunberg et al. (1994, p. 527n.) do not dispute the frequency of these patterns, but they claim that there are also many verb-theme idioms with an open locative position. The latter sort of idiom, they note, should be impossible if the Hierarchy Constraint is correct. However, the instances of this pattern they cite (e.g., light a fire under x, put money on x, lay hands on x, and take part in x) are identical to the many examples noted in (51) above; they are fully consistent with the Hierarchy Constraint once
we take into account their internal organization. As observed earlier, these idioms include the head of the locative PP, as Nunberg et al. (1994) also acknowledge.

\[(64) \quad \text{put money on } x\]

These expressions are thus verb-theme-location idioms. They are not verb-theme idioms with an open locative position and they therefore do not constitute counterexamples to the Hierarchy Constraint.

As far as I know, there are only two bona fide examples of verb-theme idioms with an obligatory open locative position: the back stops Loc and set foot Loc, both discussed earlier. Nunberg et al. attribute the rarity of such examples to the general rarity of verbs that require an obligatory locative, even in non idiomatic patterns (1994, p. 527, note 41). However, this point leaves unexplained certain facts concerning the types of idioms in which verbs that do take obligatory locative arguments occur. As illustrated in (65), for example, the verb put appears in several verb-location idioms:

\[(65) \quad \text{put } x \text{ through the wringer} \quad \text{put } x \text{ through } x \text{'s paces} \]
\[
\text{put } x \text{ on the map} \quad \text{put } x \text{ out to pasture} \\
\text{put } x \text{ in } x \text{'s place} \quad \text{put } x \text{ on the back burner} \\
\text{put } x \text{ on a pedestal}
\]

Crucially, though, put seems not to occur in verb-theme idioms with an open locative position. However, it can occur in verb-theme-preposition idioms such as put a stop to and put one finger's on, in which the choice of preposition is fixed according to A Dictionary of American Idioms and The American Idioms Dictionary.

Something similar happens with verbs such as lay, keep, set, and wrap, all of which have senses that require a locative complement. As illustrated in (66), these verbs can occur with these senses in verb location idioms.

\[(66a) \quad \text{lay } x \text{ at } y \text{'s door} \quad \text{lay } x \text{ on the line} \]
\[
\text{b. keep } x \text{ under one's hat} \\
\text{c. set } x \text{ back on } x \text{'s heels} \\
\text{set } x \text{ down to } y \\
\text{set } x \text{ on fire} \\
\text{d. wrap } x \text{ around one's little finger} \]
However, like *put*, these verbs do not occur in verb-theme idioms with open locative positions. Rather (with the exception of *set foot*), any idiom that includes the theme seems also to include a specific preposition as well (*lay hands/a finger on, lay hold of, lay the blame on, keep an eye on, set fire to, set one's sights on*).

In sum, there are argument structure asymmetries within idioms that apparently fall beyond the scope of explanations based on factors such as animacy and idiosyncracies in lexical selection. Although these asymmetries are perhaps only strong tendencies, at least for now I interpret them as evidence for the relevance of the thematic hierarchy to idiom creation, as posited by the Hierarchy Constraint.

Assuming that argument asymmetries in general are real and that they play a central role in defining the organization of sentence structure (see note 9), it is not surprising that their effects should be seen in the organization of idioms too. According to the view put forward earlier in this paper, idioms are created by ‘freezing’ all or some of the items in a chain of heads. Assuming that verbal idioms have as their starting point a verb, the relevance of the argument hierarchy to idiom structure can perhaps be traced to the fact that it provides a path through a subpart of the chain that extends outward from the verb. Given that this path begins with the verb’s least prominent dependents, it is plausible to think that they have the first and greatest chance of being incorporated into an idiom in cases where the semantic and pragmatic conditions for idiom creation are also met.

3. **Concluding Remarks**

If the ideas put forward in this paper are correct, idioms are very reliably subject to at least one grammatical principle, the Continuity Constraint, which requires that they consist of a chain of head-to-head relations. In the prototypical idiom, the terms in these relations are particular words, although small subclasses of lexical items are involved in some cases.

Independent motivation for the Continuity Constraint comes from its ability to accurately delineate the set of possible idioms. In particular, it can account for the existence of ‘non-constituent idioms’ while at the same time predicting the non-existence of various other idiom patterns, such as verb plus genitive, subject plus object, and verb plus object of a preposition.

An important consequence of the Continuity Constraint and its focus on head-to-head relations is that it makes evident the effects of a second, but weaker, constraint on idioms. First proposed by Kiparsky, the Hierar-
chy Constraint requires that verbal idioms include a continuous portion of the verb's argument structure, beginning with the least prominent argument. Most apparent counterexamples to this constraint disappear once it is recognized that the internal organization of idioms is sensitive to relations between heads rather than between heads and phrases.

It is possible that the Continuity Constraint does more than simply regulate idioms. Idioms may well be part of a continuum that extends from completely frozen expressions at one extreme to ordinary constructions, such as the passive or the double object pattern, at the other. These various constructions differ from each other (in degree) in terms of semantic transparency and the potential for lexical substitution, but they can perhaps all be reduced to a chain of head-to-head relations. If this is right, then the Continuity Constraint may play a central role in the syntax of human language, revealing the organizational blueprint not only of idioms but of constructions in general.

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