TOWARD A CONSTRUCTION-BASED THEORY OF LANGUAGE FUNCTION: THE CASE OF NOMINAL EXTRAPOSION

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Through a detailed examination of a particular sentence type, we outline a formal model in which grammatical description includes the description of use conditions on form-meaning pairs. The sentence type at issue is an exclamative construction we refer to as Nominal Extrapolation (NE). This construction, exemplified by the sentence It's AMAZING the DIFFERENCE, bears a superficial resemblance to Right Dislocation (RD). However, NE must be distinguished from RD on syntactic, semantic and discourse-pragmatic grounds. The postpredicate NP represents a TOPIC in the case of RD, a FOCUS in the case of NE; this NP receives a metonymic scalar interpretation in the case of NE, but not in RD. We employ the framework of Construction Grammar and seek to demonstrate that it is uniquely suited to grammatical description of the type required here: NE represents a gestaltlike interaction of formal, semantic and pragmatic constraints. We argue for a compatible formalism akin to that found in recent versions of Lexical-Functional Grammar in which argument structure and syntactic constituency parallel a level of representation incorporating categories of INFORMATION STRUCTURE. In addition, we seek to validate the notion—central to Construction Grammar—that sentence types are a crucial basis for syntactic description. In particular, we argue that NE is an instance of the exclamative sentence type and that basic formal and semantic properties of NE follow from this categorization. We suggest that the relationship between NE and like exlamatives can be represented in an INHERITANCE NETWORK.

1. INTRODUCTION. In this case study, we will provide a formal description of a sentence type defined in terms of properties of information structure and illocutionary force. This type is widely attested in spoken English but has received little attention in either generative or functionally oriented frameworks. Some attested examples, mostly from spontaneous oral productions, are given in 1. For heard examples, prosodic peaks are marked by small capitals.

(1) a. It's AMAZING the people you SEE here.
    b. By the end of last week, Shapiro said he was too tired to continue sparring with his former colleagues. 'It's immeasurable the toll it has taken on the people involved in any aspect of this case.'

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1 Jespersen (1933/1964: 154ff) mentions an instance of this construction among a number of examples involving what he calls a 'preparatory' followed by a group of words in 'extraposition'. A preliminary analysis of the NE construction is offered in Fillmore & Kay 1993 (chap. 10).
c. A: Where’s Buttsy? B: He’s slipped in to see Senator What’s-his-face.
   A: It’s amazing the access he’s got! [Doonesbury 3/13/93]
d. Announcer: Hear what denture wearers all over America are saying.
   Denture wearer: It’s AMAZING the difference! [Fixodent commercial]
e. ‘The cops? Are they friends of yours?’ ‘Hardly’, I said, but I sat there smiling. It was terrible, really, the joy I took at the notion of skunking Pigeyes. I already had a few ideas. [S. Turow, Pleading Guilty]
f. It’s ASTONISHING the age at which they become skilled LIARS. [comment on lie told by five-year-old child]
g. It’s STAGGERING the number of BOOKS that can pile up.
h. Just walking in the street [is difficult]. I mean, it’s UNBELIEVABLE the people who are verbally abusive to FAT people. [Obese interviewee, ‘The Famine Within’]
i. It’s AMAZING the extent to which you can turn around a DISFAVORABLE witness to your own FAVOR. [Gregg Jarrett, Court TV, 7/12/95]

On superficial inspection the sentence type illustrated in these examples appears to be a type of Right Dislocation (RD): that type which involves coreference between the postverbal NP and a pronominal subject. Like RD sentences of this type, the examples in 1 contain (a) a focused main verb and (b) a pronominal subject which apparently corefers with a postverbal definite NP. We will argue, however, that the sentences in 1 instantiate a sentence type that must be distinguished from RD on syntactic, semantic and pragmatic grounds. We will conclude that the only satisfactory account of these unique properties is one in which they are attributed to a distinct grammatical construction. We will call this construction NOMINAL EXTRAPOSITION (NE).

In this analysis, we will employ the framework of CONSTRUCTION GRAMMAR (CG), a monostratal, unification-based syntactic theory (Fillmore et al. 1988, Fillmore & Kay 1993, 1994, Goldberg 1992, 1995, Jurafsky 1992, Koenig 1993, Lambrecht 1994, Michaelis 1994a). In CG, the grammar represents an inventory of form-meaning-function complexes, in which words are distinguished from grammatical constructions only with regard to their internal complexity. The inventory of constructions is not unstructured; it is more like a map than a shopping list. Elements in this inventory are related through INHERITANCE HIERARCHIES, containing more and less general patterns.

Inheritance networks provide a way of representing formal and semantic correspondences among constructions (Fillmore & Kay 1993, Lakoff 1987, Goldberg 1995, Michaelis 1994a). These inheritance networks invoke the connectionist model of memory. This model, according to Pinker and Prince (1991: 232), is ‘both associative and superpositional: individual [linguistic] items are dissolved into sets of features, and similar items . . . overlap in their physical representations, sharing representational real estate’. In accordance with Lakoff (1987) and Goldberg (1995), we will describe overlap relations in terms of
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The mode of inheritance employed here is that referred to by Flickinger et al. (1985) as the **normal mode**. Normal-mode inheritance allows for over-rideres: a dominated construction may fail to inherit certain specifications of the dominating construction. Thus, information in a dominating node may conflict with that in a dominated node without causing ill-formedness.

A simple example of inheritance is found in Michaelis 1994a. There, it is argued that the Latin comparative conditional, exemplified by expressions like *Quo minus cupiditatis, eo plus auctoritatis* (‘The less ambition, the more authority’), inherits its syntactic and semantic structure from a general biclausal correlative construction, exemplified by expressions like *Quot homines adstubant tot sententiae erant* (‘There were as many opinions as there were people standing around’). The general correlative construction is composed of a subordinate clause introduced by a relative element (e.g. the quantifier quot), paired with a main clause containing a demonstrative element of the same lexical category (e.g., the quantifier tot). The pairing is interpreted as signaling equivalence of two values on a pair of pragmatic scales (e.g. those denoting number of persons and number of opinions).

The comparative conditional is related to the general correlative construction by means of an **instance link**; the former is a more fully specified instance of the latter. In particular, the comparative-conditional construction contains (a) a syntactic specification requiring that the scalar nominals, adjectives or adverbs appearing in the subordinate and main clauses represent comparative expressions, and (b) a semantic specification requiring that each of the two scalar values invoked (e.g. values for ambition and degree of authority) be interpreted as a variable value rather than as a constant. The comparative conditional also inherits formal and interpretive features from a particular degree-phrase construction: the so-called ablative of measure, by which a quantity noun in the ablative case modifies a compared expression. The ablative of measure is exemplified by phrases like *vir melior multo* (‘a better man by much’). The degree-ablative construction is related to the correlative conditional by means of a **subsumption link**: the latter is a subpart of the former. In Goldberg’s words, ‘The inheritance network lets us capture generalizations across constructions while at the same time accounting for subregularities and exceptions’ (1995:67).

Among the formal objects represented by constructions are linking constructions (e.g. the ditransitive), sentence-type constructions (e.g. topicalization), instantiation constructions (e.g. templates for null instantiation and coinstantiation of arguments), and constituency constructions (e.g. verb phrase). The CG view of grammar accords with that of Pullum & Zwicky (1991:252), who argue that ‘grammar . . . is simply a set of construction-particular rules (partly universal and partly parochial in their formulations)’. The presumption that constructions are, as Pullum and Zwicky put it, ‘the crucial basis for syntax’ conflicts with the view that language-particular grammatical constructions are taxonomic epiphenomena, and that the grammatical patterns in a given language can be attributed to the interaction of general principles of Universal Grammar with nonuniversal restrictions reflecting language-specific parameter settings (Chomsky 1995).
While few would doubt the validity of a universal framework for syntax, the existence of language-specific parameter settings, which Pullum and Zwicky refer to as parochial transconstructional constraints, has been called into question by recent work in construction-based syntax. Pullum and Zwicky argue convincingly that Ross's double-ing constraint is attached to a single constituency rule. Zwicky (1994) points out that while English appears to contain a transconstructional filter ruling out non-that-marked finite clauses and VPs in subject position (*We built an igloo astonished Terry, *Build an igloo tires me out), instances of the inverted wh-cleft construction show that this constraint is not absolute: We built an igloo is what we did, Build an igloo is what we did. Such findings suggest that the ungrammaticality of an expression follows from the lack of a construction that licenses the expression, not from any transconstructional filter. Since a parameter-based model cannot account for the cancellation, in well-defined instances, of otherwise applicable formal conditions, we have reason to prefer a construction-based model.2

The construction-based model also appears preferable to the Principles and Parameters approach when we consider the number and variety of structural patterns that one can represent by means of the model. Proponents of CG intend its mechanisms to provide analysis for all formal structures in a given language, including idiomatic or noncore constructions which have traditionally been relegated to an appendix to the grammar (Fillmore & Kay 1994). A construction grammar does recognize basic-level constructions like the subject-predicate construction, which are invoked by other constructions, impose the fewest formal restrictions on their subparts, and do not subsume other constructions of the same type (Zwicky 1994). Basic-level constructions play a role in the description of formal conflict resolution and in the description of inheritance hierarchies. Basic-level constructions, however, are not to be equated with an a priori set of structural patterns deemed relevant for the formulation of the grammar. As in examining categorization, one does not restrict one's purview to prototypical exemplars. Proponents of CG aim to capture the details of any given construction, and the sources of these specifications.

2 In addition to contrasting with the Principle and Parameters model, CG also contrasts with that view of Universal Grammar advanced by proponents of Optimality Theory (Legendre et al. 1993), in which universal constraints on syntactic well formedness (e.g. those concerning the assignment of abstract case) can receive different rankings in different languages. The distinct rankings represent typological differences. According to this view, a sentence is well formed if it represents the maximally harmonic output. The maximally harmonic output is that which violates the fewest high-ranking constraints. The constraint-satisfaction approach contrasts with the positive licensing approach of CG: ‘an expression is ungrammatical only because there is no combination of constructions that licenses it, not because there is some cross-constructional filter that rules it out’ (Zwicky 1994). Zwicky goes on to argue (p. 614) that

It is hard to see how the effect of syntactic constructions could be achieved via a set of universal constraints, however ranked. A universal-constraint approach is certainly plausible in phonology, but the fact that syntactic form is associated with semantic interpretation . . . in decidedly language- and dialect-particular ways stands in the way of a universal constraint approach to syntax.
CG appears particularly well suited for describing the properties of NE, because what defines this construction is an interaction of rule-particular constraints on form, meaning and use. This unique constellation of facts can be given a unified treatment only in a framework which, like CG, allows for simultaneous representation of syntactic, semantic and pragmatic properties. In invoking this kind of multidimensional grammatical architecture, CG resembles Lexical-Functional Grammar (LFG), as described by Bresnan & Kanerva (1989). In this version of LFG, 'the thematic, structural and functional levels of language are parallel information structures of very different formal character, linked by functional correspondences' (Bresnan 1994:73). The parallel levels of structure found in LFG—argument structure, functional structure, and categorial structure—are represented by means of attribute-value matrices (AVMs) in CG (Fillmore & Kay 1993). The analysis of NE in particular requires that these AVMs specify relations of information structure—specifically the indentifiability and activation properties of the denotata of sentence constituents and the topic and focus relations between these denotata and the propositions in which they occur.3 We will employ the theory of information structure presented in Lambrecht 1994. This theory targets the morphosyntactic and prosodic encoding of the focus, topic and activation status of denotata.4

The relevant properties of information structure could in principle be repre-

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3 Information-structure analysts do not routinely assume a distinction between, on the one hand, the pragmatic roles topic and focus and, on the other, distinctions pertaining to activation status. For example, Birner, in her 1994 analysis of English inversion constructions, utilizes only activation-status distinctions. Sentence topic is typically equated with evoked or inferable information, focus with previously inactive information. Lambrecht (1994) argues, however, that a distinction between, for example, focus status and activation status must be maintained. A focal referent, according to Lambrecht, is one which is treated as an unpredictable argument of the particular predication. While such referents tend strongly to be inactive (i.e. not previously evoked), they need not be. Notice the exchange in (i).

(i) A: Was he looking for Pat?
   B: I think he was looking for ME.

   It would seem uncontroversial to claim that the speaker and hearer are fully active referents, since their contextual accessibility is high. Nevertheless, the pronoun me receives the prosodic prominence characteristic of an 'inactive' referent in B’s response. In accordance with Lambrecht 1994, we analyze the prosodic peak not as indicating an inactive referent but as indicating a focal referent: an unpredictable argument of the propositional function He was looking for x.

4 R. Tomlin (p.c.) has identified an apparent circularity in the argumentation associated with the information-structure framework: pragmatic categories like topic are identified on the basis of their codings (e.g. lack of prosodic prominence), and formal features are analyzed in terms of the pragmatic categories with which they are associated. However, circularity would be a risk only if the pragmatic categories were in fact defined in terms of their formal manifestations. In the information-structure framework, the relevant codings are indexed to contexts. The empirical component involves, among other things, elicitation of speaker’s judgments about the possible contexts in which a given sentence, with a given set of morphosyntactic/prosodic properties, could or could not be used. The theory concerns the pragmatic categories involved in these judgments. In targeting the relationship of form to discourse-pragmatic context, and in invoking the coding of cognitive categories, the information-structure framework resembles experimental paradigms in which structural alternations are examined through the manipulation of discourse-pragmatic context (Tomlin 1995).
sented in the functional-structure level of the LFG formalism. The NE construc-
tion, however, cannot readily be represented in a lexically based linking
account. A lexically based linking account involves word-level templates that
contain thematic and other semantic information, and that are underspecified
with respect to the formal realization of the elements in the theta frame. General
rules linking thematic roles to grammatical functions determine a verb’s argu-
ment structure or structures. Crucial here is the idea that when a verb’s argu-
ment structure varies (as in the case of directional-adverb preposing), that
variability is to be attributed to the applicability of (at least) two sets of linking
rules; the argument repertoire itself is constant across the alternate argument
structures. NE cannot be described according to this model because it does
not represent an alternative linking pattern. Under the lexically based linking
account of NE, the ‘canonical’ version of 1a would be: The people you see
here are amazing. In this sentence, the property of being amazing is attributed
to the people in question; the people you see here qualifies as theme. In 1a,
however, the property of being amazing is attributed to a state of affairs involv-
ing the people in question. We will argue for a metonymic principle of construal
by which the NP the people you see here represents a proposition which bears
the thematic role content. In other words, NE is not the product of a linking
rule, but is instead a sentence type.5

Even leaving aside the issue of argument structure, we presume that a lexical-
projection model cannot account for the fact that an apparently open-ended
array of verbs can enter into the NE valence pattern, with concomitant modifi-
cation of their semantics. As an exclamative construction, NE licenses predicates denoting expectation violation, like be amazing. In 1e, be terrible
represents a predicate of expectation violation, as does be immeasurable in 1b,
although neither be terrible nor be immeasurable are intrinsically epistemic
predicates of this type. Such examples indicate that the syntactic pattern associ-
atied with NE has an inherent semantics, which triggers implicit conversion
operations where lexical specifications are in conflict (Talmy 1988, Goldberg

In fact, Bresnan, in her recent analysis of locative inversion (1994), recog-
nizes and seeks to account for instances of implicit conversion found in cases
like Through the window on the second story was shooting a sniper. In such
examples, she argues that a locative-theme argument structure imposed by the
pragmatic requirement of presentational focus is superimposed on the argument
structure associated with the unergative verb shoot. The agent role of shoot
will consequently be identified with the ‘overlay theme’ (p. 91). The problem
with this type of account, as we see it, is that it is not explicit. If the LFG
mapping theory is driven by the supposition that ‘argument roles are lexically
underspecified for the possible surface syntactic functions they can assume’

5 NE is not an argument-structure or linking construction in the sense of Goldberg 1995. As a
sentence-type construction, it does not unify with the subject-predicate or VP construction, as
does a linking construction. Further, the subject grammatical function of NE, unlike the ditransitive
linking construction, is lexically filled (by the pronoun it).
(p. 91), then argument structures are products of the linkings licensed by given verbs. If in fact argument structures are not independent form-meaning pairings, it is difficult to understand the source of the ‘overlay theme’. In CG, however, the lexicon is not the only source of semantic content. Instead, argument structures are linking templates with associated semantics (Goldberg 1995). The interpretation of a sentence arises from a top-down operation (invoking the semantics of the syntactic template) combined with a bottom-up operation (invoking the semantics of the verb).

In addition to providing a straightforward account of implicit conversion as seen in cases like 1e, a construction-based account also accords well with a theory of illocutionary force based on the notion of sentence type (Sadock & Zwicky 1985). Certain basic properties of NE are readily seen as a consequence of the fact that NE is an instance of the exclamative sentence type, as defined in Michaelis & Lambrecht 1994a. Thus, we recognize a correlation between form and speech-act force, as well as the relevance of such correlations for syntactic analysis.

In favoring a constructional account over one based on lexical projection, we embrace the notion that sentence types are among the formal patterns that play a part in defining linguistic competence. In the case of NE in particular, we will demonstrate that formal, semantic and pragmatic conditions interact in the manner of a gestalt. While NE counts as a templatic idiom in the sense of Fillmore, Kay, and O’Connor (1988), we will also argue that basic formal and semantic properties of NE follow from the fact that this construction is an instance of the exclamative sentence type. In accordance with Nunberg, Sag, and Wasow (1994:531), we presume that ‘idioms have identifiable parts’. Linguistic facts that do not fall out from other facts are not ipso facto completely arbitrary facts. We propose that the formal, pragmatic and semantic commonalities between NE and its congers within the exclamative category be represented via relations of inheritance. In the following three sections, we will look in turn at the structure, meaning and use of the NE sentence pattern. Our discussion of structure is divided into two parts. The first part sets out the formal constraints that distinguish NE from Right Dislocation. The second part outlines the CG formalism, and thereby provides the background necessary for interpreting the syntactic representations provided. In §5, we demonstrate that NE belongs to a natural class of exclamative constructions. We show that formal and semantic commonalities among the exclamative subtypes can be elegantly represented by means of an inheritance network like those described in Lakoff 1987 and Goldberg 1995. In the concluding section, we will address the status of sentence types in grammatical theory.

2. SYNTAX

2.1. NOMINAL EXTRAPOSITION vs. RIGHT DISLOCATION. The NE construction, unlike the relevant type of RD, does not involve coreference between the pronominal subject and the extraposed NP. This is shown by the fact that the extraposed NP and the subject pronoun need not agree in number. We see lack of number agreement in 1a and 1h. In 1h, for example, the subject is the singular
pronoun it while the postverbal constituent is the plural NP the people. By contrast, notice the anomaly of the RD construct 2b, as against 2a.6

(2) a. They’re red leathers, the shoes she’s wearing.
   b. *It’s red leathers, the shoes she’s wearing.

Furthermore, the pronominal subject in NE sentences must be it. Notice the anomaly of 3, which is a variant of 1a.

(3) *They’re amazing the things you see here.

As 2a shows, the RD construction is not restricted in this manner.

In the case of RD, an instance missing the dislocated constituent is always a syntactically well formed and potentially complete sentence. In NE this is not the case, although this is not always obvious from an exclusively structural point of view. Since the subject it in NE is nonreferential, a sentence like It’s amazing, obtained by omitting the extraposed NP, is at least semantically ill formed, since the predicator amazing requires a complement (whether an extraposed clause or a subject) which bears a theta role. The fact that such sentences do not give the impression of being grammatically ill formed is a coincidence of English morphology. Evidence from French bears on this issue. Notice the contrasts in 4:

(4) a. C’est EVIDENT, qu’elle a tort
   ‘It’s obvious, that she’s wrong’. (RD)
   b. C’est EVIDENT.
   ‘It’s obvious.’
   c. Il est EVIDENT qu’elle a tort.
   ‘It’s obvious that she’s wrong’. (clausal extraposition)
   d. *Il est EVIDENT.
   ‘It’s obvious’.
   e. *Il est EVIDENT, qu’elle a tort.
   It is obvious, that she’s wrong’. (RD)
   f. *It seems.
   g. *It seems, that she’s wrong.

The version containing ce, 4a, need not contain a que-clause, as shown by 4b. In the version with il, 4c, the main verb must be followed by a focal, extraposed que-clause. Sentence 4d shows that the extraposed clause must be present; sentence 4e shows that the postpredicate clause must be in focus. The pronominal element il, unlike ce, is nonreferential in the given context. Therefore, a postpredicate element must be present in 4d to receive that theta role assigned by the epistemic predicate. That element must be in focus, as required by the extraposition construction. Since the pronoun it in English is ambiguous between a referential and nonreferential interpretation, the English translations of 4d and 4e are acceptable; the pronominal subject receives a referential interpretation. Unlike be obvious, however, the English verb seem cannot assign a theta role to its subject. Sentences 4f and 4g fail because neither provides an

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6 The use of the comma in RD examples like 2a is a pretheoretical method of indicating that the postpredicate NP receives the intonation characteristic of an ‘afterthought’.
argument position for the theta role content. If we can regard NE as analogous to clausal extraposition, then 4f and 4g display an anomaly like that of the sequence *It is amazing.* This sequence is not licensed by the NE construction: the subject is nonreferential, and there is no postpredicate element to carry the theta role content.

Features of prosody support the view that the postpredicate NP in NE is indispensable. In RD, the postpredicate NP has a low and flat intonation contour, indicating that it follows the right boundary of the VP focus domain. In NE, by contrast, this NP is necessarily accented. A referential constituent that can lack prosodic prominence is ipso facto topical, insofar as the role of its referent in the proposition is treated as recoverable (to the point that in many languages such constituents may be phonologically null). Therefore, in the case of RD sentences, the version without the dislocated NP is also a complete sentence. In the case of NE, this argument cannot be made: the necessary presence of an accent on the rightward NP entails a focus relation of the NP denotatum to the proposition. A denotatum is said to have a focus relation to a proposition if its occurrence in the proposition is assumed by the speaker to be nonrecoverable for the addressee at the time the sentence is uttered. To say that a denotatum has a focus relation to a proposition is to say that it is the occurrence of this denotatum in the proposition that makes the utterance of the sentence informative. We will return to the issue of the pragmatic relation between the extraposed NP referent and the proposition in §4.

Another argument in favor of distinguishing NE from RD concerns the types of determiners that may occur in the two constructions. Fillmore and Kay (1993, ch. 10) observe the following contrasts.

(5) a. It's amazing the things children say. (NE)
    b. It's amazing what things children say.
    c. They're amazing, the things children say. (RD)
    d. *They're amazing, what things children say. (RD)

As 5b shows, the determiner what may occur in exclamative sentences that closely resemble NE, the NP *what things children say* being semantically equivalent to the NP *the things children say* in 5a. In RD, by contrast, this determiner may not occur, as shown by 5d. We will argue in §5 that the equivalence between 5a and 5b stems from the fact that NE is closely related formally and semantically to an extraposition construction that has an exclamative function and licenses a clausal complement having the form of an indirect question.

When we consider the appropriate syntactic representations for NE and RD, we find that these two constructions must be assigned distinct constituent structures. In the case of NE, as against RD, there is a constraint requiring adjacency of the predicator (the main V' constituent containing be and the AP) and the postverbal NP. Notice example 6.

(6) A: Did you notice the difference when you were in Germany?
B: It was AMAZING[+foc], in Germany [−foc], the difference[−foc]
(RD)
B': It was AMAZING[+foc], the difference[−foc], in Germany[−foc]
(RD)

In the case of RD, as shown in 6, the topic constituents appear after the focused VP, and they may appear in either order. This is consistent with the nature of extracausal, (i.e., nonargument) topic constituents noticed in Lambrecht 1981 for French, Bresnan and Mchombo 1987 for Chichewa, and Lambrecht 1990 for English. Note the lack of this flexibility in the case of 7.

(7) A: Apparently Grandma took her MEDICATION when she was in GERMANY.
B: *It was AMAZING in Germany the DIFFERENCE. (NE)
B': It was AMAZING the DIFFERENCE, in Germany. (NE)

This adjacency of V and NP in NE suggests a relation between the verb and the subject that is reminiscent of that normally found between the verb and its direct object. Notice the examples in 8 and 9.

(8) *I noticed, in Germany, the DIFFERENCE.
(9) ??I could see, yesterday, the JOY she took in her work.

One way of stating the adjacency condition exemplified in 7 is to say that the postverbal NP must lie within the V' focus domain, that is, no constituent representing a TOPIC (in terms of Lambrecht 1994) can intervene between this NP and the main verb. However, we have no evidence for the presence of a V' in the NE construction. In fact, anomalous coordinate structures like 10a indicate that the predicator and postpredicate NP of NE do not form a constituent.

(10) a. ??It's AMAZING the DIFFERENCE and was REMARKABLE the PRICE.
b. She's AMAZING in MATH and was REMARKABLE in PHYSICS.

The anomalous sentence 10a contrasts with 10b, in which the V' predicators form constituents with the following preposition phrases. We will state the adjacency condition evidenced in 7 in the following way: The inverted subject forms a FOCAL UNIT with the preceding predicator. In §4 we will argue that the entire NE sentence is in focus.

A prominent DISTRIBUTIONAL distinction between the RD and NE constructions involves restrictions on embedding. NE, unlike RD, appears to be a main-clause phenomenon. Notice the contrast in 11.

(11) a. Since it was so AMAZING, that difference, he changed his mind.
(RD)
b. *Since it was so amazing the DIFFERENCE, he changed his mind.
(NE)
c. Since it was so obvious that there was a DIFFERENCE, he changed his mind. (clausal extraposition)

This restriction of NE to main clauses, which it does not share with ordinary extraposition sentences (see 11c), accords with the speech-act function of this construction. In §5, we argue that NE is an instance of the exclamative sentence
type, and, in accordance with Hoeksema and Napoli (1993), we presume that exclamatives, like interjections, are main-clause phenomena.

NE fits the traditional definition of extraposition insofar as it licenses the empty subject *it and it does not necessarily license an allosentence containing the extraposed material in canonical subject position. So, in some sense, sentences 12a and 12b fail for the same reason.

(12) a. *That Irving is here seems.
    b. *The people you see here is amazing.

However, the similarity between ordinary extraposition and NE ends here. Although extraposition is obligatory with raising predicates like seem, most extraposition sentences do have a canonical subject-predicate counterpart (hence the term EXTRAPOSITION). Moreover, this counterpart always has the same logical meaning (although not the same information structure) as the extraposed sentence. In NE, by contrast, the lack of a synonymous canonical counterpart is systematic, and constitutes a defining property of the construction.

2.2. Construction Grammar Formalism and the Representation of NE. In CG, box diagrams are used to represent constituent structure. Boxes that are included within another box represent daughter nodes, while the including box represents a mother node. Syntactic (SYN) and semantic (SEM) features of constructions and their subparts are represented in tandem, by means of attribute-value matrices (AVMs). An AVM is a list of attributes with exactly one value assigned to each. Semantic attributes invoked in CG include the FRAME attribute, whose value is some specification of the scene encoded by the lexical item. Words that take arguments, verbs in particular, have, in addition to the syn and sem attributes, the valence attribute VAL, whose value is the set of arguments. Each element in this set has the attribute ROLE, which has as its values the attributes GRFN (grammatical function) and THETA (thematic role). Syntactic attributes include the category (CAT) attribute (the word-class membership of the constituent), the maximality (MAX) attribute—a maximal constituent is one which represents the maximal project of the lexical category.

The topmost AVM of a construction represents the external syntax, semantics, and valence of the construction. In the case of the verb-phrase construction, for example, the values for these attributes necessarily unify with those of the head daughter, the lexical verb. The requirement of unification of two values is symbolized in CG by the use of paired pound signs (#), each of which is assigned the same number. A crucial aspect of CG mechanics is that the values assigned for the cat and sem attributes in the external AVM can differ from those of the construction’s head daughter. CG allows for violations of STRICTLY CATEGORIAL DETERMINATION, a principle central to X’ models of syntax (Zwicky 1995). Under strictly categorial determination, the category of an expression is entirely determined by its internal syntax. There are many exceptions to this principle. Consider, for example, the distribution of that adjective phrase whose head is an adjective preceded by the degree marker as and whose complement is a clause introduced by as (e.g. He was as confident as he ap-
peared to be). This AP can function not as an AP but as a concessive clause: *As confident as he appeared to be, he was extremely nervous.* A mismatch between internal and external categories may also be semantic in nature. Such mismatches are characteristic of idiomatic constructions. As Fillmore and Kay (1994) point out, expressions like Watch me drop it do not count as commands, but as ironic comments on the likelihood of undesired outcomes. Such expressions instantiate a construction headed by the bare-stem infinitive watch and containing an NP and nonfinite predicate as internal arguments; the semantically-pragmatic force of this construction is that of an ironic remark. While syntax has traditionally been restricted to the role of providing the instructions by which the lexical contents are assembled, syntax in the CG paradigm is capable of contributing conceptual content on its own (see Goldberg 1995, ch. 2). In the case of the NE construction in particular, the external semantics of the construction does not merely represent the projection of the semantics of the main predicator (*be amazing*, etc.), but also the fact that this construction is interpreted as a degree exclamation. The fact that sentences like *It's amazing the people he knows* receive a scalar interpretation is not a fact about the predicator *be amazing*, but about the formal configuration at issue.

We propose that the NE construction represents a flat structure, in which the main predicator licenses two valence elements: the empty subject it and the postverbal definite NP, which is assigned the theta role CONTENT. In the case of RD, we propose only the independently motivated subject-predicate syntax and semantics, augmented by the requirement of semantic unification between a referential pronominal element and a postverbal, postclausal definite NP. In Figures 1 and 2, respectively, we give CG diagrams of the NE construct *It's amazing the difference* and the RD construct *It's amazing, the difference*. We simplify the representation of the internal syntax of the sequence *is amazing*. We assume that *be* is a raising predicate, that is, its subject instantiates the understood subject of the predicate which serves as its complement (here the predicate *amazing*). The valence description for the predicate *amazing* is also simplified, in that we have ignored the EXPERIENCER argument of this predicate, which is null-instantiated in the NE construction, but which is necessarily present at the conceptual level (see §5).

The description of NE requires that we add two pragmatic attributes to the syn, sem, role, and val attributes currently employed in the CG formalism; these are ACT (activation) and PRAG (pragmatic role). The attribute act in those boxes which represent referential arguments denotes the ACTIVATION STATUS of the NP referent, that is, the assumed status of this referent in the consciousness of the addressee at the time of the utterance (Chafe 1987, Lambrecht 1994: chap. 3). The act attribute has as its values two other attributes: ACTIVE and ACCESSIBLE. Accessible referents are those identifiable referents that are not fully active, and yet are recoverable from context. An active referent, which

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8 The information-structure representations in Figs. 1 and 2 contain no indication of the identifiability value of the NP referent, since identifiability (hence, generally, definiteness of the NP) is entailed by activeness and accessibility (Lambrecht 1994, chap. 3).
is also necessarily an accessible referent, is one that is currently 'lit up' in the shared consciousness of speaker and addressee. As indicated in Fig. 1, the postpredicate NP in NE denotes a referent which is [active−] but [accessible +]. This analysis will be motivated in §4 below.

The activation attribute is to be distinguished from the PRAGMATIC ROLE attribute, prag. The prag attribute has two possible terminal values: topic and focus. We are using the definitions of these terms supplied by Lambrecht 1994. When
the element that bears focus is an argument, the prag attribute appears as a value of the role attribute, whose other values, the attributes grfn and theta, refer, respectively, to the grammatical function and thematic role of the element. When the element that bears focus is a predicate or sentence, the prag attribute does not represent the value of another attribute. In Figure 2, the prag value [focus] in the box for amazing, along with the prag value [topic] in the boxes for it and the difference, indicate that this construct is an instance of the predicate-focus (or topic-comment) articulation. The prag value [focus] in the external AVM of Fig. 1 indicates that this construct is an instance of the sentence-focus articulation (see §3 below).

3. SEMANTICS. The NE construction has an exclamative function, and its scalar properties follow from this function. As a prelude to a more elaborate analysis in §5, let us define exclamative utterances as those in which the speaker presupposes that some entity is located at some point on a property scale, and asserts that the entity manifests a remarkably high degree of this property.9

The affective stance involved is generally expressed by a subordinating main predicator. These predicators evoke expectation contravention; they contain AP complements like astonishing, incredible and unbelievable. The paraphrase set in 13–16 shows that NE can be identified with more familiar exclamative constructions.

(13) It’s AMAZING the odd people my SISTER knows.
(14) My sister knows so many odd PEOPLE!
(15) It’s AMAZING how many odd people my SISTER knows.
(16) I’m AMAZED at how many odd PEOPLE my SISTER knows.

Each of these sentences asserts that the set of odd people known by my sister ranks high on a numerical scale. The paraphrase relationships among 13–16 will be further explored in §5. What is crucial here is that 13 is vague in a way that 14–16 are not. In the case of 13, the interpreter must infer the

9 While the vast majority of NE sentences that we have collected require a scalar interpretation, we have found certain exceptions. One of us spontaneously uttered the following NE sentences, in which the predicates are not of the epistemic type described, and the extraposed NP does not apparently receive a scalar interpretation. Sentence (i) was uttered in reference to the presence of twelve jurors’ chairs next to the speaker’s table in a conference room, and (ii) referred to the messy window sill outside a classroom.

(i) It’s WEIRD the set-up of that ROOM!
(ii) It’s GROSS all those PIGEONS out there!

What links these examples to those in (i) is that they involve the speaker’s belief that the situation denoted (e.g. the presence of some number of pigeons) is NONCANONICAL. In §4, we argue that an exclamative sentence represents an assertion that a certain situation is remarkable. That is, exclamative sentences count as NONCANONICITY JUDGMENTS (cf. Fillmore & Kay 1994, Michaelis 1994b). A salient type of noncanonicity is that involving a higher than expected degree of some scalar property. The examples in (i–ii) can be viewed as involving an extension (in terms of Lakoff 1987) of the core semantics of NE: while (i–ii) do not represent degree exclamations, they nevertheless count as noncanonicity judgments. Slobin and Aksu (1982) discuss the manner in which degree exclamatives are related to the general function of flagging a situation as surprising.
relevant scalar parameter, as well as the corresponding property scale. It is not
the odd people themselves but their number that is placed at the extreme end
of a number scale. The vagueness inherent in 13 becomes evident when we
note that the relevant scalar parameter could in fact be the variety rather than
the number of strange acquaintances. Therefore, sentence 13 has either of two
paraphrases, given in 17.

(17) a. It’s amazing the variety of odd people my sister knows
    b. It’s amazing the number of odd people my sister knows.

The examples in 13 and 17 show that the NE construction is compatible with
postpredicate NPs denoting scalable properties (the number, the variety) and
with postpredicate NPs like the odd people my sister knows, which do not
intrinsically denote scalar parameters. In the case of 13, we can say that the
postpredicate definite NP refers METONYMICALLY. Reference to an entity is used
to evoke a relevant scalar property of that entity. Further examples may help
to clarify this point. Let us examine examples If and Ig, repeated here as 18a
and 18b.

(18) a. It’s ASTONISHING the age at which they become skilled LIARS. [com-
    ment on lie told by five-year-old child]
    b. Just walking in the street [is difficult]. I mean, it’s UNBELIEVABLE
       the people who are verbally abusive to FAT people. [Obese inter-
       viewer, ‘The Famine Within’]

In 18a, the property of being astonishing is not attributed to the particular
life stage invoked, which in this case is the age of five. Instead, what is deemed
astonishing is the early age at which skilled lying is possible. The point of
eventuation of this stage ranks high on a scale of prematurity in child develop-
ment. In the case of 18b, we can say that the NP the people who are verbally
abusive to fat people ‘stands for’ the number of such people. In accordance
with Fillmore and Kay (1993), who make a similar observation, we can note
that it is not these people in themselves who are amazing, but the cardinality
of the set to which they belong. It might be said that the lack of number agreement
between the main predicator and the postpredicate NP in examples like 13
and 18b reflects the metonymic mode of interpretation: the amazement, etc.
is predicated of a DEGREE, and therefore the main predicate reflects singular
agreement whatever the number of the postpredicate NP.

The metonymic mode of interpretation we have discussed is not unique to
the NE construction. There are several other constructions that license this
type of metonymic reference. They are exemplified in 19.

(19) a. I’m AMAZED at the odd people you KNOW.
    b. The odd people you KNOW!
    c. A: Audrey’s got some strange friends, doesn’t she?
       B: It’s AMAZING, the odd people she knows.

In both 19a and 19b, a definite NP whose lexical head is not a quantity word
serves to evoke a point on a scale. Like NE sentences, these forms express
the speaker’s affective reaction to the achievement of this value. In §5, we will
argue that metonymic reference of the sort described here is characteristic of a limited number of exclamative constructions including NE.

The exclamative response in 19c is an instance of RD, although not an unproblematic one. This example counts as an instance of RD insofar as the postpredicative NP has the lack of prosodic prominence associated with right-dislocated NPs. The deaccentuation of the postpredicate NP accords with the analysis of its denotatum as an active discourse referent—an analysis that is appropriate insofar as Audrey’s strange friends have already been invoked by A. However, this example displays a syntactic property that we previously analyzed as a distinguishing characteristic of NE: there is no number agreement between the pronominal subject and the postpredicate NP. Furthermore, this example appears to lack an allosentence featuring canonical subject-predicate syntax—a property that again makes this example look more like NE than RD. Given the lack of an accent on the postpredicate NP, however, we choose to regard this example as an instance of RD rather than NE. In this case, we analyze the pronominal subject as referential, in accordance with the rule for subject interpretation in RD sentences: it refers to the metonymic target: the number or variety of odd people that Audrey knows.10

In general, the metonymic degree interpretation of a definite NP is possible only when that NP appears in a position other than canonical subject position. As a consequence, the inferred scalar meaning of the extraposed NP referent is normally absent in the canonical versions of NE sentences, in which the subject NP appears in initial position and triggers number agreement on the verb. Notice, for example, the sentences in 20, in which subject-predicate sentences are contrasted with their apparent NE counterparts.

(20) a. The odd people my sister knows are amazing.
   a'. It’s amazing the odd people my sister knows.
   b. The people who are verbally abusive to fat people are unbelievable.
   b'. It’s unbelievable the people who are verbally abusive to fat people.
   c. The age at which they become skilled liars is astonishing.
   c'. It’s astonishing the age at which they become skilled liars.

In 20a the property of being amazing is predicated of the set of people known by my sister, not of the variety or number of such people, as in 20a’. In 20b it is the people who are verbally abusive to obese people that are characterized as being unbelievable, not the high number of such people, as in 20b’. Similar remarks can be made about the difference between 20c and its NE counterpart, 20c’. Sentence 20c attributes the property of being astonishing to a particular life stage, or perhaps to the behavior of children at that life stage. By contrast, 20c’ is a comment on the early attainment of a life stage; the NP the age at which they become skilled liars is interpreted as encoding a particular point

10 The lack of a canonical version of B’s response can be attributed to two morphological restrictions. First, the verb must receive singular morphology in concord with the number feature of the metonymic target. This number feature is necessarily singular, because the metonymic target is a single scalar degree. Second, the verb must agree in number with its subject in a subject-predicate sentence. Thus, we rule out *The people she knows is amazing.
on a scale that ranks stages of development according to how early they are manifested. What the canonical sentences (20a–20c) have in common is that they are topic-comment sentences rather than degree exclamations.¹¹

Our observations about the meaning difference between NE sentences and their nonextraposed counterparts suggest that one could not describe the interpretive properties of NE by attributing those properties to a more general extrapolation construction instantiated by NE. In the case of clausal extrapolation, in particular, we expect a paraphrase relation between canonical and extrapolated versions of a given proposition. For example, That he lied is obvious is synonymous with the extrapolated sentence It’s obvious that he lied. In the case of NE, as we have seen, this paraphrase relationship does not exist.

Thus far, we have used formal properties of NE to demonstrate that NE is not an instance of RD, and semantic properties of NE to show that NE is not simply a subcase of clausal extrapolation. In the next section, we will examine discourse-pragmatic properties that provide further evidence in favor of treating NE as a formal idiom (Fillmore et al. 1988).

4. PRAGMATICS. RD and NE share a salient discourse-pragmatic constraint: both are appropriately used only when the referent of the rightward NP is not only identifiable (justifying use of the definite article) but also somehow recoverable from context. In the case of RD, pragmatic recoverability of the NP referent follows from its status as a topic—topical referents are recoverable by definition, in the sense that such referents are under discussion at the time the sentence is uttered. A topical element is a predictable locus of predication (cf. Lambrecht 1994: chap 4). In RD (as opposed to left dislocation), the topic referent is also relatively high on the accessibility scale—typically to the point of being discourse active. In the case of NE, the postpredicate NP denotes a referent that is not currently active. Hence, examples of NE necessarily contain an activation accent falling at some point within the postpredicate NP.¹² Re-

¹¹ We do find topic-comment degree exclamations in which an NP in subject position appears to receive a metonymic construal.

(i) The welcome we received by the Belgians was unbelievable. (Writer, Dear Abby 7/4/95)
(ii) The snow was just unbelievable.

One could argue that the definite NPs the welcome we received by the Belgians and the snow stand for the magnitude of the welcome and the amount of snow, respectively. This analysis raises the question of why the nonextraposed sentences in 20 do not also welcome a metonymic reading of their definite-NP subjects. It is possible, however, that (i–ii) are not in fact degree exclamations; one could analyze their subjects not as standing for scalar degrees but as standing for events (a welcoming event or a snow storm). The force of the construction on this analysis would be a remark upon the unusual nature of an event.

¹² We have provided two apparently distinct explanations for the presence of that accent which falls at some point within the postpredicate NP in the NE construction: (a) this accent is an activation accent, indicating that the referent of that NP has not been active to this point; (b) this accent is a focus accent, indicating that the postpredicate NP bears a focus relation to the proposition. The question is whether these explanations are compatible. We maintain that they are, since the status of a referent as topic or focus is distinct in principle from its activation status. For example, an active referent may be a focus, just as a topical element may lack active status (cf. Lambrecht 1994). In the case of NE, focal accent and activation accent happen to coalesce: the postpredicate NP represents both a focus and an element which, while accessible, is not currently active.
move the accent from the postpredicate NP in examples like 1, and one necessarily removes the possibility of that exclamative interpretation we have ascribed to the NE construction. The following minimal pair shows that the NE and RD constructions differ with respect to the activation status of the denotatum of the postpredicate NP.

(21) Announcer: Hear what denture wearers all over America are saying about the difference Fixodent has made in their lives.
   a. Denture wearer: It’s amazing, the difference. (RD)
   b. Denture wearer: ?? It’s amazing the difference. (NE)

The anomaly of 21b in the context specified follows from the constraint preventing the postpredicate NP in NE from representing an active discourse referent. While it cannot be discourse active, however, the NP referent in NE must be pragmatically accessible. Accessible referents are those identifiable referents which are not currently under discussion but which are recoverable from the linguistic or extralinguistic context (Chafe 1987, Lambrecht 1994: chap. 3).

Notice examples 22–26, three of which have appeared before.

(22) A: Where’s Buttsy? B: He’s slipped in to see Senator What’s-His-Face.
   A: It’s amazing the access he’s got! (= 1c)
(23) A: With saffron, a little goes a long way, right?
   B: It’s amazing the power of the yellow.
(24) Announcer: Hear what denture wearers all over America are saying.
   Denture wearer: Its amazing the difference! (= 1d)
(25) Just walking in the street [is difficult]. I mean, its unbelievable the people who are verbally abusive to fat people (= 1h).
(26) Garbo could turn almost every sentence into a joke on the one before.
   It was fascinating the way she wove her verbal tapestry. [Vanity Fair 2/94]

The accessibility of the referents of the extraposed NP follows from the fact that each represents an aspect of the superordinate discourse topic (van Oosten 1984). Thus, for example, meeting with senators involves access to those senators (22). A salient property of saffron is its yellow color (23). An improvement involves a difference between a previous state of affairs and a subsequent one (24). For an obese person, walking in public may involve encountering various hostile people (25). Finally, the action of weaving a tapestry is a readily available metaphorical envisionment of Garbo’s verbal dexterity, to which the reader has previously been introduced (26).

In sum, there is a constraint particular to NE which requires that the postpredicate NP denote a referent which is (a) not yet active but (b) accessible from the discourse topic. This constraint is applicable whether the postpredicate NP directly refers to a scalar property like variety or number, as in 17, or metonymically refers to that property, as in 13. When the metonymic trigger (e.g. the odd people she knows) has not previously been invoked, the metonymic target (e.g. the number of odd people she knows) cannot represent an active discourse referent.
The discourse status of the entity denoted by the postpredicate NP in NE is manifested not only in prosody but also in a constraint on grammatical definiteness. We assume that grammatical definiteness reflects the cognitive status IDENTIFIABLE. Identifiable referents are those the speaker assumes have a representation shared by the hearer (Lambrecht 1994: chap. 3). We further assume that identifiability constraints on nominal reference may be imposed by a given construction. Notice the contrasts in 27. The presentational sentence 27c is to be taken in the existential rather than the deictic reading.

(27) a. It's amazing, \{\*a the \that\} difference. (RD)
b. It's amazing \{\*a the \*that\} DIFFERENCE. (NE)
c. There's \{an \*the \*that\} amazing DIFFERENCE.\textsuperscript{13}

In some sense, NE represents a discourse-pragmatic compromise between RD and the existential assertion of 27c. Sentence 27b differs from 27a and resembles 27c in that the referent of the NP is not active and not topical. Unlike 27a, 27b cannot contain anaphoric reference to some recently introduced discourse entity, nor can 27b contain deictic reference to some entity in the text-external world. This fact explains the inappropriateness of the determiner \that\ in 27b. But 27b resembles 27a, and differs from 27c, in that the postpredicate NP-referent cannot receive the coding appropriate for an UNIDENTIFIABLE referent, as it does in the acceptable version of 27c. Thus, the indefinite article is inappropriate in both 27a and 27b. As we argued above, the NE construction requires that the postpredicate NP refer to an aspect of the current superordinate discourse topic. The definiteness constraint on the postpredicate NP in NE and RD is illustrated in 27a and 27b. In the case of RD, the identifiability requirement stems from the topic function of the dislocated NP. As argued in Lambrecht 1994 (chap. 4), topic referents must be identifiable because of a basic cognitive constraint on property attribution: the entity to which a property is attributed must be familiar to the interlocutors. Note the peculiarity of the sentences in 28.

(28) a. *A car is a VOLVO.
b. ??What a nice PERSON someone is.

\textsuperscript{13}The versions of 27c in which the postpredicate NP is grammatically definite are acceptable under that construal in which the postpredicate NP is nontopical. The typical context for this construal is that of a list (\textit{There's the price, there's that amazing difference}, and so on), in which the existence of a field of competitors ensures that the relation of the postpredicate NP to the (existential) predicate is unpredictable, as required of focal referents. Since the property of being an unexpected locus of predication is a necessary characteristic only of inactive referents, there is a strong tendency for focal referents to also be inactive referents.
The definiteness constraint associated with NE is based on a similar cognitive principle. One cannot communicate to an interlocutor one’s amazement at something unless the interlocutor has prior knowledge of that thing. If no such prior knowledge obtains, use of a presentational construction is required (see 27c above).

In another respect, however, RD and NE are not comparable pragmatically. The pragmatic relation between the NP referent and the proposition is that of a topic in the former case, a focus in the latter case. RD is akin to ordinary predication types, and the dislocated NP is a straightforward instance of a topic: a referent that represents a predictable argument of the predicate in question. The relation between the NP referent and the proposition is treated as pragmatically recoverable, and the proposition is interpreted as conveying information about this referent. NE is a degree exclamation. Accordingly, it is not the cognitive status of the postpredicate NP referent as a potential topic that is exploited in NE but the ability of this NP to invoke a position on a property scale. This scalar locus is a referent whose status as a predication site is not predictable from the discourse context; hence, the NP referent has a focus relation to the proposition. In RD, the predicate alone is in focus. In NE, both the predicate and the argument are focal. The focus role of the NP referent within the proposition motivates the noncanonical (‘inverted’) position of the subject argument in the sentence.

In 29, we see a representation of the information structure of an NE construct, sentence 1c. The format chosen for this representation is that adopted in Lambrecht 1994.

(29) Sentence (1c): It’s amazing the access he’s got.

Presupposition:
A. Of Knowledge: Referent designated by he [Buttsy] has some access in Washington
B. Of Consciousness:
   i. Presupposition (A) is accessible to hearer at time of utterance of 1c.
   ii. Referent denoted by he is active at the time of the utterance of 1c.
   iii. Referent of the extraposed NP (the access he’s got) is accessible as an aspect of the superordinate discourse topic (the Washington lobbyist frame).
C. Of relevance: Referent Buttsy is topical in the discourse

Assertion: The ranking of Buttsy on the access scale is remarkably high

Focus: The ranking of Buttsy on the access scale is remarkably high

Focus domain: S

In NE instances like 1c, the focus spans the entire proposition; the focus is identical to what is asserted. In other words, the syntactic focus-domain is the entire sentence. The NE construction therefore represents an instantiation of a focus-articulation type referred to in Lambrecht 1994 as the SENTENCE-FOCUS...
CONSTRUCTION. Properties intrinsic to the focus-articulation type are distributed over constituents of the construction, resulting in those pragmatic-role specifications represented in AVMs in figures 1 and 2.

Owing to the third consciousness presupposition, NE constructs provide a rhetorical effect unavailable in the case of RD. The postpredicate NP found in an NE sentence refers to some aspect of a superordinate discourse topic. By contrast, the postpredicate NP found in a case of RD simply resumes a basic-level discourse topic. Notice the NE example in 30.15

(30) The mere sight of Henry . . . lifted her spirits. It was frightening the way her adoration seemed to flow out of her like ink into water, staining everything, hiding everything. [J. Smiley, Duplicate Keys]

The first sentence establishes as a superordinate topic the protagonist's strong affection for Henry. The NE construct following this sentence directs the reader to regard this affection as a particularly intense profusion of feelings. By convention, the postverbal NP represents an accessible referent. Thus, a metaphorical reenvisionment of the superordinate topic can be packaged as the postverbal NP. A worthwhile pragmatic generalization concerning such phenomena is this: postverbal position is conducive to further development, while preverbal position is constrained to already available material.

5. NE AS AN INSTANCE OF THE EXCLAMATIVE SENTENCE TYPE. In this section, we will consider those properties of NE that are strongly motivated on the basis of its taxonomic relationships to other exclamative constructions. We propose that these relationships be represented in an inheritance network like those described by Lakoff 1987, Fillmore & Kay 1993 and Goldberg 1995. This type of analysis has intuitive appeal in that it exploits the pretheoretical conception of an exclamative sentence type or types. At the same time, such an analysis requires us to be precise when we invoke the relationship of form to illocutionary force: we cannot be satisfied simply to state that NE is an instance of the exclamative sentence type, we must also specify just what formal and semantic properties follow from this fact.

We say that a sentence type exists when a certain communicative function is conventionally associated with a particular grammatical structure. Traditionally

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14 This type of sentence-focus construction differs from other instantiations of this focus articulation, in that it has neither a presentational nor an event-reporting function (Lambrecht 1994).

15 Formal features suggest that it is appropriate to treat 30 as an instance of NE. It might, however, be equally appropriate to categorize 30 as an indirect exclamative, since the way could be said to function as a subordinator akin to how in sentences like It was frightening how her adoration flowed out of her. Certain NE examples containing the postpredicate NP the way bring up the problem mentioned in n. 9. Many of these examples do not represent degree exclamations, but instead comments on the remarkable nature of some situation. Note the following example (From the Wall Street Journal corpus).

(i) Meanwhile, Larry Thornton, Iowa's deputy treasurer, said he thought it was 'kind of cute the way investment banks will always try to be the first to do something'. Here, the quoted speaker signals that certain proclivities of investment banks are exceptional in their capacity to merit his bemusement.
recognized sentence types include declaratives, imperatives, and questions. The notion that various illocutionary forces receive distinct formal coding is referred to by Levinson (1983) as the Literal Force Hypothesis (LFH). Levinson casts doubt on the tenability of the LFH. In particular, he shows that it is manifestly inadequate when we attempt to account for indirect speech acts. He looks at findings in conversational analysis that indicate that 'the functions that utterances perform are in large part due to the place they occupy within specific conversational (or interactional) sequences' (p. 279).

Konig (1986) raises further questions about the reliability of the form-function fit. He looks at examples of formal overlap involving the adverbial constructions concessive, concessive conditional, and conditional. He points out that although these three categories are typically associated with distinct formal properties, they may also be formally indistinguishable. For example, he observes that in interrogative contexts like 31a, conditionals are interpreted as concessive conditionals. He also shows that in contexts like 31b, a concessive conditional may be interpreted as a concessive.

(31) a. Will you take the car if it is snowing? (= even if it is snowing)
   b. He looked at me kindly if somewhat skeptically. (= although somewhat . . .)

The issue that concerns us here is whether we can identify an exclamative sentence type for English once we confront the great variety of forms to which someone could intuitively assign an exclamative function. The expressions in 32 show the heterogeneous character of the class of exclamative sentences; 32i is the subject of this case study.

(32) a. I'm amazed at how much time it took.
   b. Allen served just two years there [in prison] and it was a transforming experience. 'It was frightening, that whole time, how much anger I had.' [Time 12/12/94]
   c. You wouldn't believe the bickering that goes on. [For Better or for Worse, 8/15/94]
   d. In The Mask, Carrey plays Stanley Ipkiss, a bank clerk whose timidity is quickly demonstrated in a series of opening sketches. Poor Ipkiss! The indignities that the world heaps on him! [Michael Covino, East Bay Express, 8/15/94]
   e. God my feet hurt.
   f. What a day (I had).
   g. Are you in for it!
   h. He's so uncooperative!
   i. It's pretty remarkable the people they get there.

At the very least, it seems to be a misnomer to speak of a unitary exclamative sentence type in English. The data in 32 illustrate a further difficulty inherent in presuming a form-function fit in the realm of exclamatives: sometimes there is simply not much form to pin a function on. In the case of 32d, for example, we find only an NP, pronounced emphatically. How can this form be related to the far more elaborate form in 32a? It is difficult to decide what an exclama-
tive should look like. According to Sadock and Zwicky (1985), exclamatives are closely related to declaratives, and therefore closely resemble declaratives in form. However, 32d, for example, owes nothing to declarative syntax.

In Michaelis & Lambrecht 1994a, we argued in favor of preserving the LFH in the case of exclamatives, maintaining that all of the constructions in 32 represent grammaticized means of performing an exclamative speech act. In that study, we postulated that the form-meaning pairs exemplified in 32 are motivated through relations of inheritance. In accordance with Goldberg 1995, we equate motivation with after-the-fact inference. Linguistic facts that are motivated are neither arbitrary nor predictable. Learners make sense of input forms to the extent that they can identify formal and semantic correspondences among those forms. In this section, we will seek to motivate certain formal and semantic properties of NE by situating NE in the inheritance network described in the earlier study. Exclamative types directly relevant to this enterprise are shown in 32a–32d). We refer the reader to our previous paper for discussion of the exclamative types shown in 32e–h.

As in our earlier study, we assume that each of the exclamative subtypes inherits its semantic and pragmatic properties from an abstract superconstruction: the Abstract Exclamative Construction (AEC). In the case of 32a–e in particular, the AEC interacts with two templates independently licensed by the grammar: extraposition and the Bare Complement Question Construction. Our analysis of these two constructions is taken from Fillmore and Kay 1993. The extraposition construction licenses sentences like 33, in which a predicate adjective that assigns a theta role to a single clausal complement licenses two complements: a nonreferential subject it and a clausal sister in focus. The Bare Complement Question construction licenses indirect questions, as in the italicized portion of 34.

(33) It’s obvious that she’s not interested.
(34) I wonder who saw me there.

The network of exclamative constructions contains instances of multiple inheritance. As Goldberg points out, multiple inheritance ‘allows us to capture the fact that instances of some construction types seem to resist being uniquely categorized in a natural way’ (1995:97). Notice for example sentence 32b: It was frightening . . . how much anger I had. This sentence appears to instantiate two constructions: the extraposition construction and a construction Milner (1978) refers to as an indirect exclamative. This label suggests an analogy with indirect questions like 34: the Indirect Exclamative construction contains a matrix predicate which governs a clausal complement introduced by a wh-word. In fact, we will claim that the Indirect Exclamative subsumes the Bare Complement Question construction instantiated in 34.

Another instance of multiple inheritance relevant to NE involves a construction that appears to be uniquely dedicated to the expression of exclamative semantics: the Metonymic NP Construction. This construction licenses a reading of a definite NP in which a definite NP ‘stands for’ a proposition that invokes some degree of a scalar property. The Metonymic NP construction is
instantiated by several of our exclamative examples. By invoking this construction, we account for the paraphrase relationship shown in 35.

(35) a. I can’t believe the money I spent on clothes last summer.
    b. I can’t believe how much money I spent on clothes last summer.

We will now look at the semantic and pragmatic components of the AEC. Following this discussion, we will examine four related exclamative sentence types, in order to describe the formal and semantic properties of NE which are motivated by its similarity to other exclamatives.

The AEC, as we see it, has a grammatical status like that of the Left Isolate (LI) construction discussed by Fillmore and Kay (1993). LI is a clausal construction which licenses long-distance dependencies like wh-questions and topicalization. Fillmore and Kay say that the LI construction ‘is really a family of constructions, or better an abstract construction whose properties are inherited by a number of more detailed constructions’ (p. 11.4). The LI construction contains only very general syntactic and semantic constraints. A complement is instantiated to the left of a maximal verb, which may or may not have a subject. The valence slot that the ‘extracted’ complement fills is embedded at an undefined depth within the maximal verb. Any structure formed in accordance with the LI template must satisfy the general constraints associated with the abstract construction. The idea underlying the AEC is much the same. However, in the case of the AEC we find no formal constraints other than a general requirement that all components of the semantico-pragmatic frame receive expression. Some of these components are realized through metonymic construal; others through a type of pragmatic construal like that found in instances of null complementation (Fillmore 1986).

Importantly, the AEC is not intended to subsume all expressions of English that could conceivably be labeled exclamations. We have semantic grounds for excluding constructions like those exemplified in 36 from the class of exclamatives as narrowly defined.

(36) a. Damn!
    b. It’s a beech tree!
    c. There we were in some remote part of Bali and who did we see but Joel and Dina.

Example 36a represents an interjection rather than an exclamation. An interjection is like an exclamation in that it expresses the speaker’s emotional stance toward some situation. An interjection is unlike an exclamation in that it has no recoverable propositional content. Sentences 36b and 36c are exclamatory in that they express an affective stance toward some propositional content. Further, the stance is one of surprise or disbelief, as in our original examples in 32. Exclamations like 36b and c, however, do not belong to the natural class at issue because the object of disbelief is not the DEGREE of a property. On our definition, an exclamative utterance counts as an assertion that something manifests a property to an unusually high extent. The semantic and pragmatic properties shared by the exclamative examples in 32 are listed in 37.
(37) **SEMANTECIC-PRAGMATIC PROPERTIES OF THE ABSTRACT EXCLAMATIVE CONSTRUCTION**

a. presupposed open proposition  
b. scalar extent  
c. assertion of affective stance: expectation contravention  
d. identifiability of described referent  
e. deixis

We will examine properties a–c together, taking sentence 38 as our test case.

(38) I can’t believe how much he’s grown!

The presupposed open proposition contains a variable in place of a particular degree specification: *He has grown to X extent.* The person uttering 38 presupposes that the person referred to has grown to some extent. The quantity expression *much* invokes a scale whose origin is some minimal amount. The open proposition places the individual at some point on the scale of ascending quantity for growth. The entire utterance expresses the speaker’s judgment that the degree in question is higher than the speaker had expected. In ex. 38, the main clause *I can’t believe* expresses the speaker’s affective stance. A property related to presupposition of the open proposition is that of referent identifiability (37d): the entity of whom the scalar property is predicated must be identifiable. As mentioned in §4, the identifiability constraint can be said to stem from a basic constraint on property attribution, exemplified in 38.

Thus far, our analysis resembles that in Sadock & Zwicky 1985:

. . . exclamations are intended to be expressive whereas declaratives are intended to be informative. Both represent a proposition as being true, but in an exclamation, the speaker emphasizes his strong emotional reaction to what he takes to be a fact, whereas in a declarative, the speaker emphasizes his intellectual appraisal that the proposition is true. (P. 162)

We depart from Sadock and Zwicky in emphasizing the importance of scalability and another crucial property, DEICTIC ANCHORING. Exclamatives involve both personal and temporal deixis. The notion of affective stance entails the presence of someone making a judgment, and the speaker is the judge by default. The speaker’s status as judge may be explicit, as in 38, where the main-clause predicator has a first-person subject or it may be implicit, as in 39.

(39) It’s amazing how fast the weather can change.

Sentence 39 can be paraphrased as ‘I find it amazing how fast the weather can change.’ In some cases, however, the speaker invites the hearer to do the judging, as in 40.

(40) a. You wouldn’t believe how much he’s grown.  
b. You won’t believe how much he’s grown.

Exclamatives in which the hearer is the judge have a marked status. This is shown by the fact that sentences like 40 require a subjunctive or futurate main verb. The sentences in 40 have a conditional flavor; they convey the message: ‘You would find the situation remarkable if you were in the position to judge’. This conditional flavor seems to be crucial; sentence 41 does not count as an exclamative.
(41) You (apparently) can’t believe how much he’s grown.

The sentences in 42 don’t count as exclamatives either, because the judgment predicates are not deictically anchored.

(42) a. They wouldn’t **believe** how much he’s **grown**.

b. My mom can’t **believe** how much he’s **grown**.

With respect to temporal deixis, it appears that the affect evoked by the main-clause predicator must hold at speech time, whether or not the state of affairs remarked upon also holds at speech time. In cases like 40, in which there is a futurate or subjunctive epistemic verb, we presume that the speaker currently holds the feelings of amazement which s/he asserts are potentially shared by the hearer. Sentence 43a is exclamative, but 43b is merely a recollection.

(43) a. I can’t **believe** how much we **spent**.

b. I couldn’t **believe** how much we **spent**.

According to our analysis as it stands, neither the sentences in 42 nor sentence 43b count as instances of the exclamative sentence type, as represented by the AEC. This analysis is less than fully satisfactory, because the sentences in question have a formal feature that is unique to exclamatives. Only the AEC licenses a valence frame in which the main predicator **believe** takes a complement introduced by a wh-word. When **believe** has this valence structure, it must be negated. Notice the anomaly of (44).

(44) a. *I believe how much money you spent.

b. *I believe what a jerk he is.

The negation requirement is motivated by the fact that asserting lack of belief counts as the expression of a judgment of expectation contravention, as required by the AEC. Therefore, it is apparent that sentences like My mom **couldn’t believe how much money we spent** are formed in accordance with the general exclamative template, although they lack the characteristic deictic anchors. We can preserve the deictic analysis of the AEC by analyzing sentences like this as instances of **perspectival shift** (Fillmore 1982). Sentences like 42 and 43b move the identity of the judge and/or the time of the judgment away from the speech scene. This type of transfer invites the hearer to empathize with the response of a third-person judge or the speaker at some point in the past or future.

Thus, while deictic anchoring is a property of the AEC that can be overridden, an affective judgment is crucial to the exclamative assertion. This claim might seem controversial, since there are exclamative types that do not require a predicate evoking expectation contravention. Compare 45a to 45b.

(45) a. What an **idiot** he is.

b. I can’t believe what an **idiot** he is.

According to our analysis, sentences like 45a require the interpreter to infer the presence of an affective judgment. If such a judgment were lacking, the sentence would not count as an exclamative. To see this, notice that the **what**
a complement is licensed by predicates that do not code an affective stance toward the proposition expressed by that complement. In particular, we find examples like 46, in which the what a clause is the complement of a factive verb.

(46) a. They don’t realize what an IDIOT he is.
   b. We all know what an IDIOT he is.

Like 45b, the sentences in 46 signal that the referent of the pronoun has achieved some value on the idiocy scale, and that this value is above the norm. Intuitively, however, the sentences in 46 do not count as exclamations. This is because they do not encode the speaker’s judgment that the scalar degree exceeds expectation. Therefore, the affective judgment is a necessary ingredient in an exclamative utterance. Where this judgment is not explicitly encoded, as in 45a, the interpreter must reconstruct it. Where this reconstruction is preempted by the presence of a factive verb like realize, the sentence does not represent an exclamation.

It is worth noting at this point that only one property of information structure—that of presupposition—has been invoked in our description of the AEC. We have not made reference to the pragmatic relations topic and focus. The reason for this omission is that exclamative sentence types appear to instantiate various FOCUS ARTICULATIONS, in terms of Lambrecht (1994). Exclamatives containing the degree words so and such (e.g. 32h, He’s so UNCOOPERATIVE) represent PREDICATE-FOCUS (equivalently, TOPIC-COMMENT sentences), insofar as the predicate bears an accent. Extraposited exclamatives like 32b (It was frightening . . . how much anger I had) feature prosodic peaks both on the main predicate and within the clausal complement, and thereby qualify as SENTENCE-FOCUS sentences according to Lambrecht’s prosodic diagnostic. Formally, sentence-final elements which bear accent represent focal elements. Therefore, we say that both the predicate and the presupposed open proposition are in focus, and 32b counts as a sentence-focus sentence. As noted above, NE also qualifies
as an instance of the sentence-focus articulation type. In sum, the AEC is neutral with respect to focus articulation—a pragmatic property specified only by the instances of that construction.

Let us now examine the five relevant exclamative types, 32a–d and 32i (NE), in turn. We will focus on those properties motivated through relations of inheritance. We will invoke the two types of inheritance links described in the introduction and exemplified by the Latin correlative conditional: instance links and subsumption links. Here, we will briefly rehearse the definitions of the relevant link types and provide an additional example of each. An instance link represents the formal and semantic overlap between a construction A and a construction B, which represents a more fully specified version of A. Thus, for example, one might propose that the Topicalization construction is linked to the LI construction by means of an instance link, or, equivalently, that Topicalization is an instance of LI. A subsumption link represents the formal and semantic overlap between a construction A and a construction B that includes all specifications of A among its specifications. Thus, for example, we could say that the English Clausal Extraposition construction is linked to the finite that-clause construction by means of a subsumption link, or, equivalently, that Extraposition subsumes the finite that-clause construction.

The Indirect Exclamative, the Extraposed Indirect Exclamative, the NP Complement Exclamative, the Bare NP Exclamative and, of course, NE are the relevant exclamative constructions here. NE will be analyzed as an instance of the Extraposition construction which also subsumes the Metonymic NP construction. It is through the latter construction that the postpredicate NP in NE receives the same interpretation as the clausal complement associated with exclamative types like the Indirect Exclamative.

The Indirect Exclamative construction, instantiated in 32a, is further exemplified by 47.

(47) I’m amazed at how much I spent.

The Indirect Exclamative construction represents an instance of the AEC. It is also linked to the Bare Complement Question construction by a subsumption link. As we mentioned, the Bare Complement Question construction licenses indirect questions, as in 48.

(48) I wonder how much I spent.

Indirect questions, like direct questions, can be represented as open propositions: I spent X amount, they hired X. The open proposition, minus the unbound variable, represents the presupposed material. In 48, for example, the speaker presupposes that she spent some amount. The main clause signals that the in which the postpredicate clause has the prosody characteristic of an antitopic (Lambrecht 1994), is an instance not of the Extraposed Exclamative but of RD.

(i) A: You can fit a lot in the trunk.
   B: It’s amazing how much you can fit in the trunk.

The analysis here is similar to that invoked in the case of sentence 19c, in which a postpredicate nominal receives antitopic prosody. This sentence was analyzed as an instance of RD rather than NE.
speaker wishes to determine this amount. The wh-complement in the case of
the indirect exclamative 47 can be given much the same analysis. Again, the
complement evokes the presupposition I spent X amount. The difference be-
tween 47 and 48 lies in the contribution of the main predicator. Sentence 47,
which contains a predicate denoting expectation contravention, asserts that this
amount is remarkably high. Therefore, 47 instantiates all components of the
AEC: it evokes a scale (of amount), it contains a predicate expressing the
speaker’s epistemic stance, and it contains a presupposed open proposition.

The Extraposed Indirect Exclamative is exemplified in 49.

(49) It’s amazing how much he’s grown.

This construction subsumes the Bare Complement Question construction. It is
an instance of the AEC and the Extraposition construction.

The NP Complement Exclamative is exemplified in 32c. Further examples
are given in 50:

(50) a. I can’t believe the time I spent on this.
   b. I’m amazed at the people you know.
   c. I can’t believe the nerve of some people.

In this construction, a predicate denoting the effective stance takes a definite-
NP complement. This NP can be paraphrased by a wh-exclamative clause; 50a,
for example is synonymous with 51.

(51) I can’t believe how much time I spent on this.

We propose that the NP Complement Exclamative, in addition to being an
instance of the AEC, also subsumes the Metonymic NP Construction. The
Metonymic NP construction licenses a reading of a definite NP in which the
NP evokes a particular scalar extent. Notice that the NP itself need not explicit-
ly evoke a scalar amount or degree (as it does, for example, in I am amazed
at the degree of progress). Definite NPs like the nerve do not explicitly encode
an amount or degree. By positing the Metonymic NP construction, we account
for the paraphrase relation between 50a and the indirect exclamative 51.

We have claimed that the Metonymic NP Construction is uniquely devoted to
the expression of exclamative meaning. This claim requires some justification,
particularly in light of examples like 52.

(52) a. Do you realize the pressure I’m under?
   b. I know the magnitude of that catastrophe.

The definite NPs in 52 can be paraphrased as, respectively, how much pres-
sure I’m under and how great the catastrophe was. Thus, it seems clear that
a definite NP can invoke a scalar extent whether it appears in an exclamative
construction or complements a factive verb like realize or understand. Notice,
however, that NP complements of factive verbs are constrained in a way that
the NP complements in 50 are not.

(53) a. ??Do you realize the people who will object to this?
   b. ??I know the money you spent

The examples in 53 suggest that the factive verbs know and realize do not
welcome NP complements that do not intrinsically invoke a scale. By contrast,
as shown in 50, such NP complements are found in the exclamative context. This suggests that the principle of nominal interpretation involved in 50 is unique to a limited set of exclamative constructions. We express this interpretive principle by means of an inheritance relation linking the particular exclamative construction to the Metonymic NP Construction.

Another exclamative construction we analyze as inheriting the Metonymic NP Construction is the Bare NP Exclamative, exemplified in 54.

(54) a. The things I put up with around here.
   b. The nerve of that man!

(55) a. I can’t believe the nerve of that man!
   b. It’s incredible the nerve of that man!

It is tempting to regard 54b as an elliptical instance of either 55a or 55b, but we then have two potential sources of 54b. A simpler option, one that does not suggest a deletion transformation, is to regard 54b as an instance of an elliptical construction in which the affective judgment is pragmatically inferred.

The four exclamative constructions in 32a–d demonstrate that a limited number of formal, pragmatic, and semantic parameters combine to produce a variety of exclamative subtypes. Recognition of these parameters provides the basis for an analysis that respects intuitions about which constructions are instances of the exclamative sentence type. As Zwicky (1994:617) points out, ‘there is a very great latitude in the way in which formal conditions are associated with semantics’. To this we add pragmatics: different constructions, with different formal conditions and different information-structure articulations, can be associated with the same complex of semantic and illocutionary properties. Given this analysis, we are in a position to locate NE within the inheritance network posited for exclamative constructions. NE is an instance of the AEC, it is an instance of Extraposition, and it subsumes the Metonymic NP construction. Table 1 shows the inheritance relations that link constructions within the network of exclamatives described.

<table>
<thead>
<tr>
<th>Exclamative Type</th>
<th>Instantiates</th>
<th>Subsumes</th>
<th>Exemplified by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Exclamative</td>
<td>AEC</td>
<td>Bare-Complement</td>
<td>I can’t believe how much I spent</td>
</tr>
<tr>
<td>Indirect Extraposed Exclamative</td>
<td>AEC, Extraposition</td>
<td>Bare-Complement</td>
<td>It’s incredible how much I spent</td>
</tr>
<tr>
<td>NP-Complement Exclamative</td>
<td>AEC</td>
<td>Metonymic NP</td>
<td>I can’t believe the amount I spent</td>
</tr>
<tr>
<td>Bare-NP Exclamative</td>
<td>AEC, Metonymic NP</td>
<td></td>
<td>The amount I spent!</td>
</tr>
<tr>
<td>Nominal Extraposition</td>
<td>AEC, Extraposition</td>
<td>Metonymic NP</td>
<td>It’s amazing the amount I spent</td>
</tr>
</tbody>
</table>

Table 1.
6. CONCLUSION. We have argued that a satisfactory account of the structure, meaning, and use of sentences like those in 1 requires recourse to construction-particular semantic, pragmatic, and syntactic properties. We have emphasized that it is necessary to integrate categories of information structure into grammatical description, as the discourse-pragmatic properties of the NE construction are inextricably intertwined with its semantic, syntactic, and intonational properties. We have presumed that constructions represent focus-articulation types (in terms of Lambrecht 1994), and that the particular focus articulation a construction represents is manifested in properties of its constituents—properties which can be represented in the AVMs of the CG formalism. We conclude that the data validate the CG approach, in which the grammar includes as minimal symbolic units syntactically complex forms having idiosyncratic meanings and highly specialized communicative functions. We have also argued that the constructional approach is compatible with an enriched conception of memory, in which formal and semantic correspondences among constructions are represented by means of inheritance relations.

While constructions are repositories of idiomatic information, a constructional analysis of the sort provided above acknowledges a great deal of regularity: constructions of the type described are highly productive, and their formal and semantic properties are strongly motivated. In accordance with Goldberg 1995 and Birner 1994, we presume that a constructional account is indicated in situations where gestaltlike properties attributable to sentence structures obviate reductionist accounts based on the possible realizations of underspecified verbal subcategorization frames. Among these gestaltlike properties are conditions on use. NE, for example, is an instance of the exclamative sentence type, and much follows from this categorization. Yet the relationship between sentence form and illocutionary force is perforce irrelevant in any syntactic model in which constructions do not play a role. In sum, it would appear that constructions, and in particular sentence types, are an irreplaceable component of grammatical organization.

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