

The Semantics of Nominal Exclamatives

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1 Introduction

In this contribution we consider a type of exclamative construction in English which shows an unusual pairing between syntactic form and semantic/pragmatic function. This is the nominal exclamative, illustrated in (1):

- (1) The strange things that he says!
- (2) What strange things he says!

(1) is a noun phrase, and thus contrasts syntactically with (2), which is a clause. Yet the two seem to be synonymous. We will argue that the noun phrase is not embedded in an elliptical structure; rather, the phrase we see is all there is. And furthermore we will argue that (1) is not just pragmatically equivalent to (2); the two are in fact semantically equivalent as well. This raises the question, of central concern to this volume, of how a noun phrase achieves such a clause-like function.

More specifically, we will argue that certain noun phrases containing a relative clause can have either “clause-like” or “noun phrase like” meanings. When the meaning is clause-like, it is parallel to that of the clausal exclamative in (2); that is, the noun phrase has the type of meaning of an interrogative clause (a set of propositions, as in Karttunen 1977). We refer to such cases with the term *nominal exclamative*. When the meaning is noun phrase like, it is that of an ordinary definite NP. The syntactic distribution of nominal exclamatives with a clausal meaning is intricate, and shows that an attempt to account for the two meanings in terms of ellipsis or pragmatic inference are inadequate. This leads us to address the question of how the clause-like meaning is compositionally derived. We note that only noun phrases that contain a relative clause may have the clause-like meaning, and based on this we propose an account of (1) which crucially builds on the fact that it contains a relative clause, in this case *that he says*. More precisely, we propose that the noun phrases with a clause-like meaning share an abstract morpheme, present in the relative clause, with the true clausal exclamatives like (2). In contrast, the noun phrase like meaning is not associated with such a morpheme.

2 The category of exclamatives

Natural language categorizes sentences into a small number of universal clause types (Sadock & Zwicky 1985). Clause types constitute a grammatically determined pairing between form and meaning. One of these is the “minor type” of exclamatives, and in labelling examples like (1) as nominal exclamatives we intend to include them within this class. Because the fact that they are

exclamatives will become relevant at various points in our discussion, we begin by making precise our reasons for considering them to be members of this type.

It is not always a straightforward matter to determine which sentences are to be classified as members of a given clause type. This is so because sentences may be used with a variety of illocutionary forces beyond that conventionally associated with their form. For example, a declarative like *It's cold in here* can be used, in the right context, with the illocutionary force conventionally associated with imperatives, i.e. command. Nevertheless, the notion of clause type takes it that a declarative is basically associated with asserting, and other illocutionary forces that it would receive are pragmatically determined, for example by implicature. When it comes to exclamatives, their conventional force is that of exclaiming. Certainly (1), like (2), can be used to exclaim. Our question is whether (1) is conventionally associated with exclaiming, or whether it is usable in this way through some indirect pragmatic mechanism.

In previous work (Zanuttini & Portner 2000, 2003; Portner & Zanuttini 2000), we have shown that exclamatives are associated with certain semantic and pragmatic properties that can be used to test for membership in the clause type of exclamatives. Here we will pick out a few of these which make the case that (1) is truly an exclamative in this sense; please see the works cited for more details.

All exclamatives are factive, and this leads to contrasts like the following:¹

- (3) a. I know what strange things he says.
b. *I don't know what strange things he says.

While (3)a is fine, with an exclamative clause embedded under the factive predicate *know*, (3)b is ungrammatical because negating *I know* conflicts with the exclamative's presupposition of factivity. We see the same pattern with nominal exclamatives:²

- (4) a. I certainly know the strange things he says.
b. *I don't know the strange things he says.

Thus nominal exclamatives pass the first test for exclamative status.

The second major property of exclamatives is that they generate a characteristic conventional scalar implicature to the effect that certain elements are at the extreme end of some contextually determined scale.³ This leads to contrasts like the following:

¹(3)b is acceptable on an irrelevant reading where the complement of *know* is a free relative. We can rule out the free relative interpretation by adding a modifier to the wh phrase: *I (*don't) know what incredibly strange things he says*.

²As we noted in the introduction, the noun phrases which can function as a nominal exclamative can typically also be used as an ordinary referential definite. In our examples, the referential reading is difficult to get, and so they seem ungrammatical, but similar examples will be acceptable on the (irrelevant) referential reading: *I don't know the strange things he lectures about*.

³The implicature is conventional, rather than conversational, because it does not arise due to reasoning based on any sort of Gricean Cooperative Assumption. Rather, it is associated with this particular linguistic form. Note that one could not explain the pattern we see with embedded exclamatives by appealing to the conversational use of the corresponding non-embedded forms. When embedded, they do not have a conversational use of their own. Similarly, as pointed out by Rob Stainton, *Big guy!* can be used as an exclamative, but when it's part of a larger sentence, it has no such conversational use of its own: *I have met that big guy before*.

- (5) a. It's amazing what strange things he says.
 b. *It isn't amazing what strange things he says.
 c. *Is it amazing what strange things he says?

Although an exclamative can be embedded under the predicate *amazing*, negating or questioning this predicate gives rise to ungrammaticality. This is because negation denies the “amazingness”, or extreme scalar quality, of the proposition; similarly, interrogative form casts into doubt its truth. Since conventional implicatures are non-defeasible, the result is unacceptable. We find the same pattern with nominal exclamatives:⁴

- (6) a. It's amazing the strange things he says.
 b. *It isn't amazing the strange things he says.
 c. *Is it amazing the strange things he says?

Based on these tests, we conclude that the examples we are focusing on share the defining semantic and pragmatic properties of the exclamative clause type.

3 Properties of nominal exclamatives

The goal of this section is to go back to example (1) to show that it is indeed (a) a noun phrase and (b) an exclamative with the same type of meaning as a clausal exclamative like (2). Demonstrating the first point is straightforward: we will show that both the internal structure and the distribution of these phrases is that of an NP. As for the second point, subject agreement allows us to distinguish subjects which have a clause-like meaning from those which have a noun phrase like meaning. Thus in this section we argue that nominal exclamatives pattern with noun phrases in terms of their structure and with clausal exclamatives in terms of their semantic type. In the next section we will investigate how this unorthodox pairing of form and meaning can be compositionally derived.

1. A superficial inspection of (1) certainly suggests that it is a noun phrase: it contains a definite determiner, an adjective, a head noun and a relative clause. This string can certainly function as a noun phrase in examples like (7):

- (7) We discussed the strange things that he says.

However, one can imagine other analyses of (1) in its exclamatory function; perhaps *the strange things* has been topicalized from the object position of *says*. That is, it derives from a structure like *that he says the strange things* by fronting of the definite NP. In this case the presence of the complementizer would be unusual for English, but maybe this construction is different from other root clauses in the licensing of overt complementizers. We see a case roughly of this sort in embedded contexts in Italian. In the following, a hanging topic precedes an overt complementizer (Benincà & Poletto 2004):

- (8) Mi dispiace [questo libro [che non ne abbia parlato nessuno]].
 to-me displeases this book that neg of-it has spoken nobody

⁴Example (6)c is similar to the grammatical example *Are they amazing, the strange things he says?* However, in this case we have subject verb agreement, and this corresponds to the referential interpretation of the noun phrase; see section 3 for discussion.

‘It bothers me that, as for this book, nobody has said anything about it.’

The embedded clause *questo libro che ...* bears a passing similarity to example (1), and yet it is undoubtedly a clause, and so we should consider whether (1) might be clausal also.

One piece of evidence that (1) is nominal rather than clausal comes from the parallelism it shows with undisputed relative clauses:⁵

- (9) a. It’s amazing the strange things that/which/*who/∅ he says!
b. Two nice houses that/which/*who/∅ he would like to buy are on sale.
- (10) a. It’s amazing the strange people that/which/who/∅ he invited!
b. Two cute girls that/which/who/∅ he met stole the cookies.
- (11) a. It’s amazing the unbelievable trees that/which/*who/*∅ grow there!
b. Two of the small palms that/which/*who/*∅ grow there came from Australia.
- (12) a. It’s amazing the wierd friends that/?which/who/*∅ visit him all the time!
b. Two British friends that/?which/who/*∅ teach at Oxford asked questions.

In (9), we see that the nominal exclamative containing an inanimate head noun and an object gap allows *that*, *which*, and \emptyset ; these possibilities are exactly the same as those in the clear relative clause. Similar patterns can be seen with the animate noun/object gap, an inanimate noun/object gap, and animate noun/object gap cases in (10)–(12).

The possibility of wh words in examples like (10)a poses a significant problem for the view that this is actually a clausal structure. If *the strange people* has been moved from the object position, there is no source site for *which* or *who*. If, however, we take the wh word to have been moved from object position, this requires that we treat *the strange people* as unmoved left-dislocated element. Since left-dislocation in English always requires the presence of a resumptive pronoun, this analysis is ruled out.⁶ Thus, the obvious conclusion from the data in (9)–(12) is the right one: nominal exclamatives are simply noun phrases containing a relative clause.

This conclusion is further supported by examining the external distribution of nominal exclamatives. We must restrict our attention to those predicates which support the exclamative interpretation, but if we do we see that nominal exclamatives only occur as the complements of predicates which subcategorize for a noun phrase. Grimshaw shows that, among those predicates that embed exclamatives, some subcategorize for both noun phrases and clauses, whereas others only take clauses (data from Grimshaw 1979, section 4.1):

- (13) a. John couldn’t believe what a height the building was. (clausal complement)
b. John couldn’t believe the incredible height of the building. (nominal complement)
- (14) a. I don’t give a damn what an outrageous size his salary is. (clausal complement)
b. *I don’t give a damn the outrageous size of his salary. (nominal complement)

⁵We embed the (a) examples under *it’s amazing* to make sure they are read as exclamatives rather than ordinary definite NPs. Other exclamative-embedding contexts, like *I am amazed at*, allow both exclamative and ordinary NP complements. Thus, *I am amazed at the strange people that he invited* could have an embedded-exclamative meaning (= ‘I am amazed at what strange people he invited’) and a referential complement meaning (= ‘I am amazed at certain people, namely the strange people that he invited’; i.e., I’m amazed at some aspect of these people, though not necessarily at the fact that he invited them).

⁶One might consider the possibility that the wh word acts as the resumptive pronoun, but there would be no other instances of such a use in English. Moreover, the cases which lack a wh word would have no overt resumptive pronoun. This means we’d have to say that the initial material is a topic when there is no wh word and a left-dislocated element when there is, a complicated possibility for which there is no evidence.

Both *couldn't believe* and *give a damn* support the exclamative interpretation; that is, they 's-select' exclamatives in Grimshaw's terms. However, whereas *couldn't believe* subcategorizes for both clauses and noun phrases ('c-selects' these categories, in Grimshaw's terminology), *give a damn* only takes clauses. As would be predicted if they are noun phrases, nominal exclamatives are only possible with predicates of the first type:

- (15) John couldn't believe [the strange things she said].
 (16) *I don't give a damn [the strange things she said].

A potential problem with our view is the fact that the complement of (15) is very similar to what Grimshaw calls 'concealed exclamatives', following Elliott (1974) and ultimately Baker (1970). A concealed exclamative is a noun phrase which fulfills the s-selection requirements of a predicate that takes an exclamative complement (likewise there exist concealed questions, examples from Grimshaw 1979:299):

- (17) John asked the height of the building. (concealed question)
 (18) John couldn't believe the height of the building. (concealed exclamative)

Notice that these examples are synonymous with *John asked how high the building was* and *John couldn't believe how very high the building was*, respectively. Thus one might wonder whether we are justified in treating examples like (1) as a distinct class of 'nominal exclamatives' separate from concealed exclamatives.⁷ There is a crucial difference between the two constructions. The examples which are the focus of this paper, i.e. (1) and (15), can stand alone with exclamative sentential force, whereas the concealed exclamative in (18) cannot. So, although *#The height of the building!* can be used to exclaim, it is elliptical, in the sense that it feels like a sentence fragment. It refers to something to which we attribute a contextually provided property. In contrast, examples like *The strange things he says!* are not perceived as elliptical in the same way. As we will see in the discussion below, the nominal exclamatives have a full exclamative meaning on their own, and in this way contrast with ordinary noun phrases used as concealed exclamatives or with the indirect illocutionary force of exclaiming.

2. We have just shown that nominal exclamatives really are nominal: they have the syntax of noun phrases. The other side of our claim is that they have the sort of meaning which is typically associated with a clause, and are essentially synonymous with clausal exclamatives. Intuitively, as already mentioned, this way of looking at nominal exclamatives is supported by the fact that they do not feel elliptical when uttered out of the blue. In this respect, they contrast with ordinary noun phrases used with the function of exclaiming:⁸

- (19) The silly questions these students ask!
 (20) Those silly questions!

One might wonder if the reason the noun phrase in (20) feels elliptical is that it lacks sufficient informational content. However, there are cases in which an ordinary noun phrase (lacking a relative clause) has the same content as a nominal exclamative, but it still feels incomplete:⁹

⁷In fact, Elliott (1974) calls examples like (15) concealed exclamatives. Against this, we are arguing that the two kinds of examples need to be distinguished, even though they are both syntactically noun phrases.

⁸Bare wh phrases like *What silly questions!* are more able to stand on their own than definites lacking a relative clause. Perhaps they are elliptical for clausal wh exclamatives (which, in that case, would be seen as tolerating ellipsis better than nominal exclamatives and declarative clauses).

⁹It's interesting to note that (22) is much worse with *the* than with *those*. We are not sure why this would be the

- (21) The strange people who come from Italy!
 (22) The/those strange Italians!

Data of the kind above suggest that only definite NPs which contain a relative clause can be true nominal exclamatives; that is, only they can have exclamative sentential force. But while it is certainly important that speakers' semantic intuitions support a difference of this sort, we would like to have some corroborating grammatical data. We find such data in agreement facts with predicates like *be amazing*. To begin, ordinary noun phrases trigger agreement with *be amazing* when they are in subject position. When they are in post-predicate position, they act as right-dislocated arguments, and agree with the predicate via a pronoun in subject position:

- (23) Those Italians are amazing.
 (24) a. They're amazing, those Italians.
 b. *It's amazing, those Italians.

Nominal exclamatives behave like ordinary noun phrases when in subject position, but in post-predicate position, they are pronominalized by *it* and do not trigger agreement:

- (25) The strange people who come from Italy are amazing.
 (26) It's amazing the strange people who come from Italy.

It is possible to have an agreeing pronoun and copula with *the strange people who come from Italy* in post-predicate position, but the meaning is different from (26):

- (27) They're amazing, the strange people who come from Italy.

(27) says that the people themselves are amazing. In contrast, (26) does not imply that the people themselves are amazing. Rather, it is some aspect of the information that there are such people who come from Italy which is amazing; for example, one might be amazed that they are strange to such a high degree or that so many of them are strange. As these paraphrases make clear, the contribution of *the strange people who come from Italy* is a group of individuals in (27) and some sort of propositional meaning in (26). That is, (27) (like (25)) contains an ordinary noun phrase followed by a relative clause whereas (26) contains a nominal exclamative.

The lack of agreement in (26) is reminiscent of the behavior of clauses linked to the subject argument:

- (28) a. It's amazing what strange things he says.
 b. *They are amazing what strange things he says.
 (29) It's surprising that they won.
 (30) It's a good question whether they came to the party.

We attribute the fact that clauses do not trigger agreement to the fact that their meaning is propositional rather than noun phrase-like (referential or quantificational). More specifically, when in subject position they cannot trigger agreement because they lack agreement features (person and number); in post-predicate position, they are pronominalized by *it* and therefore are associated with a third person singular verbal form. Based on this, we can provide an

case, but it does show that there is something special about the nominal exclamative. Moreover, *those strange people who come from Italy* seems incomplete, and no longer has the feel of a nominal exclamative

explanation of the data in (25)–(27). On our view, the string *the strange people who come from Italy* has a single structural analysis, but can have either a propositional or a nominal-type interpretation. In example (26) the phrase in post-predicate position has a clause-like meaning, and hence does not trigger agreement. More specifically, we assume that because it is propositional, it is pronominalized by *it* and hence is associated with the third singular form of *be*. In (27) it has a nominal meaning, and so is pronominalized by *they*, yielding plural agreement.

In contrast to the post-predicate cases, as seen in (25) the preverbal NP always triggers agreement. This is simply because it has person and number features and is in the right syntactic configuration for agreement to occur. Note that, in the presence of agreement, the clausal interpretation is ruled out; this leaves us with only the nominal one. The question is why there should be such a connection between agreement and interpretation. Of course this question goes beyond the present case. It involves asking why in general constituents which have a propositional interpretation (canonically, clauses) always cooccur with third person singular verb and pronoun forms, plausibly the default forms. We do not seek to address this question here.

Note that the pattern just described cannot be accounted for under an analysis which treats *the strange people who come from Italy* as syntactically ambiguous between an agreement-triggering phrase (that is, a noun phrase) and a non-agreement-triggering one (e.g. a clause). Under such a proposal, one could not explain why agreement is required in (25), since we would have the option of having the non-agreement-triggering form in subject position. This point also argues against an ellipsis account of nominal exclamatives. One would have to propose that ellipsis is impossible in subject position, given that we always get agreement and a non-propositional interpretation, but as far as we can see this restriction would have to be simply stipulated. Of course the present approach is incomplete as well, since we don't fully understand the connection between agreement and semantic type, but at least the generalizations we appeal to are independently motivated. In general, a noun phrase in subject position triggers agreement, while phrases with propositional meaning never trigger agreement. These requirements cannot both be met in a sentence containing a nominal exclamative in subject position, and so the grammar rules out this possibility.

4 Compositional interpretation of nominal exclamatives

Having shown that nominal exclamatives are structurally noun phrases but semantically clause-like, we now turn to the question of how this unusual pairing of form and meaning can arise. Given their syntactic parallelism with interrogatives, we assume that exclamatives have meanings of the same type as questions (cf. Portner & Zanuttini 2000, Section 5). That is, they denote sets of propositions (Hamblin 1973, Karttunen 1977, etc.) Of course there are differences between interrogative and exclamative denotations, but this won't be our focus here. These differences are of a pragmatic nature; in particular, exclamatives and interrogatives have different sentential forces.

The simplest option is perhaps to postulate an empty operator of some sort which converts an ordinary definite NP meaning into the appropriate question-like meaning. A traditional syntactic analysis of (31)a would be something like (31)b:

- (31) a. The things that are in this bag!

- b. $[_{DP} \text{ the } [_{NP} \text{ things } [_{CP} \text{ which}_i \text{ C } [_{IP} \text{ t}_i \text{ are in this bag}]]]]]$

Assuming that this noun phrase is referential, an operator with the meaning in (32)a would convert this into the appropriate set of propositions in (32)b:¹⁰

- (32) a. $[\lambda f . \{p : w_0 \in p \ \& \ \exists y[p = \{w : y \leq f(w)\}]\}]$
 b. $\{p : \exists y[p \text{ is true and } p = \text{'y is one of the things in this bag'}]\}$

However, such an analysis does not explain why the relative clause is required in true nominal exclamatives. A better strategy would be to build the semantic analysis somehow on the presence of the relative clause.

We will pursue an alternative based on Kayne's (1994) analysis of relative clauses. Kayne's approach is promising because it takes noun+relative clause sequences to actually be full clauses (CPs) which are the complement of the determiner. A wh phrase containing the "head noun" begins within the IP and raises to the specifier of CP. The key difference from the traditional account is the idea that the noun which the relative clause modifies originates internal to it.¹¹

- (33) $[_{DP} \text{ the } [_{CP} [\text{things which}]_i \text{ C } [_{IP} \text{ t}_i \text{ are in this bag}]]]]]$

We would like to exploit the basically clausal nature of this analysis to derive the propositional meaning of nominal exclamatives. This would also allow us to explain why nominal exclamatives must contain a relative clause, since noun phrases lacking relative clauses don't have this kind of structure.

Before tackling the exclamative interpretation of (33), perhaps it would be helpful to consider how an ordinary referential interpretation could be derived for such a structure. Within the CP, we have two set-denoting expressions: *things* and *t_i are in the bag*.¹² These two sets are intersected, either by virtue of the meaning of *which*, which would then simply be predicate conjunction, or through a default rule of predicate conjunction (cf. for example, Heim & Kratzer 1998). In the latter case, *which* would be treated as semantically vacuous. The whole CP would then denote a set of individuals, here the things which are in the bag, and the determiner would take this set as argument in the ordinary fashion.

The interpretation of nominal exclamatives can be attributed to an additional morpheme E somewhere in the structure. Though various are conceivable (E in D, adjoined to CP, or adjoined to DP, among others), we will pursue the idea that E is part of the wh phrase. The motivation for this is the fact that wh phrases in clausal exclamatives often have a unique form, different from their interrogative counterparts. For instance, the *a* in *what a dog* and *very* in *how very tall* are markers of exclamative status and could be identified with a similar E morpheme. A wh word with

¹⁰This operator gives the set of true propositions of the appropriate form. Alternative meanings for questions could be handled with appropriate changes to our operator. What we have to say could work as well if definite NPs are quantificational, though we will consider only the referential analysis for simplicity. Note that we assume that the operator combines with the intension of the NP meaning, corresponding to the variable *f*.

¹¹Assuming that we start out with *which things* as a constituent, Kayne derives the order *things which* by moving *things* from the complement to the specifier position of a QP headed by *which*: $[_{QP} \text{ things}_i \text{ } [_{Q} \text{ which } \text{t}_i]]$. We omit this detail for simplicity. An unresolved issue is how the precise form of the wh phrase is chosen, though this is a problem that afflicts traditional accounts of relative clauses as well. For instance, why is a null operator available in object relatives but not object interrogatives?

¹²Various techniques could be used to create a set out of the IP *t_i are in the bag*. In terms of Heim & Kratzer's system, the index *i* from the wh phrase would be adjoined to C', and this would trigger a rule of Predicate Abstraction.

the following interpretation achieves the correct result:

- (34) a. $\llbracket \text{which}_{EXCL} \rrbracket = [\lambda P \lambda Q . \{p : w_0 \in p \ \& \ \exists x [p = \{w : P(w)(x)=1 \ \text{and} \ Q(w)(x)=1\}]\}]$
 b. $\{p : w_0 \in p \ \& \ \exists x [p = \{w : x \text{ is a thing in } w \ \text{and} \ x \text{ is in the bag in } w\}]\}$

If we take the *wh* words in ordinary relative clauses to be meaningless, (34)a would simply be the interpretation of *E*. If, on the other hand, they contribute predicate conjunction, we can still give a compositional interpretation, though *E*'s meaning would be slightly more abstract.¹³ In either case, the *wh* word denotes a function which combines with two properties: that denoted by the noun (represented by *P*) and that denoted by the IP (represented by *Q*). The value of this function is then the set of true propositions of the form '*x* is a *P* and *x* is a *Q*'.

The analysis that we have given provides a clausal meaning to the nominal exclamative. Moreover, by adopting Kayne's view of relative clauses, the mapping between syntactic categories and semantic types is better motivated than under the alternative. The relative clause CP denotes a set of propositions, and the *wh* word denotes a function from common noun meanings and predicates to such a set of propositions. These are completely normal meanings for CPs and *wh* words to have. In particular, we provide the relative *wh* word with the type of meaning normally associated with interrogative *wh* words in this case, and this explains the synonymy between clausal and nominal exclamatives. In contrast, a traditional structural analysis of relative clauses could make use of an operator like that in (34)a. However, this would result in the relative clause CP denoting a function from common noun meanings to sets of propositions—an unprecedented semantic type for CPs.

One issue that comes up at this point is the role of the determiner *the* in nominal exclamatives. Given what we have said, the sister of *the* denotes a set of propositions, and this is not the ordinary type to be the argument of a determiner. We would like to suggest that an answer to this puzzle resides in a point that we made earlier, that exclamatives are always factive. We propose that *the* in this case marks factivity. This idea is pretty natural from the perspective of a theory of definiteness which makes the sole function of *the* to be that of marking a familiarity presupposition (Heim 1982, for example). Factivity has a clear intuitive relation to familiarity, and so it's plausible that the function of *the* could be extended to marking factivity.¹⁴ Moreover this idea lets us explain why no other determiner is possible in nominal exclamatives.

There are other possible ideas for how factivity is marked in nominal exclamatives. In other work, we have proposed that factivity is marked in clausal exclamatives by a null operator in the CP domain. Such an operator could exist in nominal exclamatives as well, presumably in the relative clause which is obligatorily present. We are not aware at this point of empirical evidence that would let us decide between these alternatives.

¹³This proposal raises the question of why nominal exclamatives cannot have the clausal exclamative-type of *wh* phrase: *what a* and *how very*. Presumably this reduces to the broader question of why the *wh* phrases in relative clauses differ in form from their interrogative counterparts (cf. footnote 11).

¹⁴On other approaches to the definite article, where *the* would have some semantic function in addition to marking a definiteness presupposition, we could still see its use in marking factivity as an extension of its usual function, though the shift would be greater.

5 Conclusion

Our central contribution has been to argue that nominal exclamatives like *The strange things that he says!* are noun phrases but have a semantic content of the kind more typical of clauses. In particular, we hypothesize that they have the semantic type of wh clauses, i.e. denoting a set of propositions. They are not derived by ellipsis from full clauses, nor is their similarity to clausal exclamatives to be explained by a pragmatic process like implicature. This combination of properties may be at first glance surprising, since it shows that grammar is not constrained by simple correlations between syntactic category and semantic type like *noun phrase* \rightarrow *entity/predicate/quantifier* and *sentence* \rightarrow *proposition/set of propositions*. This raises the question of whether this mapping is irregular and arbitrary.

Towards answering this question, we have argued that Kayne’s (1994) syntactic analysis of relative clauses provides a better foundation than more traditional views for explaining the pattern of nominal exclamatives found in English. In particular, the fact that, according to Kayne’s view, a noun phrase with a relative clause ultimately consists of a determiner taking a clausal complement helps us see why nominal exclamatives always contain relative clauses. Hence, the fact that nominal exclamatives constitute an exception to the typical relationship between syntactic category and semantic type is not as surprising as it seems at first. The interpretation of these forms derives from the presence of clausal structure in combination with a hypothesized exclamative morpheme. This leads to a view of the syntax/semantic interface which takes the category/type mapping to be derived compositionally from the internal makeup of the syntactic forms. The mapping is not arbitrary; it is motivated “from the bottom up”. Regularities exist in the mapping because the internal structure of categories shows consistency, but exceptions can arise when some aspect of the structure is unique. Nominal exclamatives provide such a case.

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