

“WHAT BECAME OF WARING?”  
QUESTIONING THE PREDICATOR IN ENGLISH

JOHN ANDERSON

*University of Edinburgh*

1. An introduction to proxy question words

After a brief discussion of some of the names that have been used to differentiate the “two kinds of question” illustrated in (1):

- (1) a. *Did he say that?*  
b. *What did he say?*

Jespersen (1924: 302-305) goes on to make a terminological suggestion of his own: he distinguishes them as “nexus-questions” (1a) vs. “x-questions” (1b). I am not concerned here with the former. However, a consideration of Jespersen’s proposed name for the latter, together with the earlier suggestions concerning their proper naming, makes a good starting point for my concerns here.<sup>1</sup>

The generality of Jespersen’s “x” – “for the unknown” (1924: 303) – is in a sense appropriate given the variety of sentence parts that can be questioned as to their content. (2) gives a selection of these:

- (2) a. *Who said that?*  
b. *Who(m) did he say that to?*  
c. *Where is the car?*  
d. *Where did Mary put it?*  
e. *When did Bill say that?*  
f. *What did Jeff become?*

---

<sup>1</sup> I am grateful to Fran Colman, Sylvie Hancil and Graeme Trousdale for discussing with me some of the material presented here. All aberrations are mine, of course.

- g. *What is Jo like?*
- h. *What did Nigel do?*
- i. *What did Nigel do to the TV?*
- j. *What happened to the TV?*
- k. *What happened?*

(2a-b), like (1b), are questions that invite the supplying of a nominal label for the “unknown”, but (2c-d) anticipate a prepositional or adverbial complement (*there, in the garage*), and (2e) an adjunct (*on Tuesday, yesterday*), while the remainder of (2) invite, whatever else, specification of a predicative element of some sort. Thus, (2f) is most appropriately answered with a predicative nominal (*an architect*), and (2g) with a predicative adjectival (*morose*); (h) is satisfied by specification of a verbal plus complements and possibly adjuncts, if any (*left, went to London, watched a movie, returned later*), while (2i-j) already have one of the complements specified in the question, and (k) invites an entire predication in answer. Not all of these can be answered simply by a sentence fragment of the dimension of the questioned part; the new information provided may not correspond to a constituent (as with *He dismantled it* as an answer to (2i) or *John sat on it* as an answer to (2j)). This variety in possible question and response fits relatively well with Jespersen’s term “x-question” and also perhaps with some of the other terms he discusses (“detail question”, for instance).

But another, more traditional terminology recognises an important limitation on the formation of such questions. In English and many languages – and perhaps universally (as the unmarked situation, at least) – the question word is (substituted for a) nominal or adverbial; (1b) and (2) are thus for some scholars “pronominal questions”, with the adverbials regarded as inflected forms of pronouns, as it were, instances of *casus adverbiales*. This observation allows us to make more precise an important distinction between the questions of (1b)/(2a-e) and (2f-k), or rather between the responses they invite. The former are what I shall call *argument questions*, vs. the *predicator questions* illustrated by the latter. As arguments I include both participants (subject and complements of the predicator) and circumstantials (adjuncts – (2f)), and disregard whether the response to the question word typically involves an NP (as with (2a)) or a PP/adverb (as with (2d)); the response involves identification of an argument of the predicator, invoked by the pronominal argument of the question, and the shape of the pronominal (*who, whom, what, where, when*) reflects different aspects of the role of the questioned argument. We should note that each of these question words can be replaced by a construction involving a “transitive” question word (*Which witness ...? At what time ...?* etc.); but I am not concerned further here with such distinctions.

With predicator questions (2f-k) the question word, always *what*, “replaces” the subject of or a complement of the predicator, but the response is a predica-

tor: nominal (2f), adjectival (2g), or involving a verb and (particularly in their case) possible arguments (the rest). There is thus with predicator questions other than the (2f) type, apparently, a discrepancy between the semantic domain of what is questioned and expression of the question, whose marker is nominal, as suggested by the “pronominal question” terminology. Let us term the element hosting expression of a non-nominal predicative question a *proxy* question word. The proxy is not a straightforward argument: the question proxy is one of a limited set of possible fillers of this slot, which also typically includes indefinites (*something*) and negatives (*nothing*), which latter, of course, do not show “wh-movement”. The syntax of such proxies thus raises some interesting more general issues, including the grammatical status of the question word in (2f) and the like. Here, however, I concentrate on devices for the questioning of the predicator, rather than explicitly including attention to indefinitisation and negativisation of the predicator.

We can observe, in the first place, that the syntactic status of the proxy question word does not appear to be consistent: in (2j-k) *what* is subject of the sentence; in (2g-i) it is a complement, specifically, in (2h-i), at least, what would traditionally be labelled the (direct) object. Also, the proxy “displaces” a potential subject in (2j) and a potential object in (2i); in both cases the “displaced” argument appears as a *to*-phrase. There are obvious (and related) “solutions” to the two problems presented by these phenomena: the subject/object discrepancy, and the “demotion” of potential subject/object to *to*-phrase. The “solutions” depend on a pair of theoretical constructs of some currency. The first would invoke the unaccusative hypothesis; the second (this and) the relational hierarchy. I am going to suggest that neither “solution” is appropriate.

The unaccusative hypothesis would have it that the subject of (2j-k) is an underlying object. Given Perlmutter’s (1978) formulation, this is in accord with the non-agentive character of the verb, which is criterial for the identification of those intransitive verbs in Dutch (for instance) which cannot appear in the impersonal passive construction, and which, in terms of this hypothesis, are assigned underlying objects as the source of their overt subjects. Notice too that (2j) can be answered by either a transitive or an intransitive sentence:

- (3) a. *Bill torched it.*
- b. *It collapsed.*

and the intransitive is normally given a non-agentive interpretation, and so is unaccusative. Both *it*’s in (3) are underlying objects; and all of the *what*’s in (2h-k) – and possibly (2g) – are also such. What unifies the distribution of proxy *what* is underlying-object status. And the object status of both of the *what*’s in (2i-j) suggests a solution to the second problem, the syntactic character of the “displaced” element in (2i-j).

In (2i-j) the “displaced” potential (underlying) object can be interpreted as an indirect object, like the *to*-phrase in (4a):

- (4) a. *Bill gave the earring to his mother.*  
 b. *Bill gave his mother the earring.*

in terms of a relational hierarchy of the Keenan & Comrie or Perlmutter & Postal sort, whereby arguments are ranked with respect to various phenomena in terms of the grammatical relation they bear, with direct object (or relation 2) being intermediate to subject (R1) and indirect object (R3). Whereas, according to Perlmutter & Postal, (4b) exhibits promotion of the indirect object shown in (4a) to direct object ( $R3 \Rightarrow R2$ ), and “displacement” to oblique (“chômeur”) status of the underlying direct object, in (2i-j) formation of a predicative question appears to involve demotion to indirect object of the “expected” direct object ( $R2 \Rightarrow R3$ ) in favour of the proxy *what*.

Consistent with this interpretation of predicative questions is apparently the observation that (2h) can, as with (2j), be answered by either a transitive or an intransitive construction:

- (5) a. *He sacked his secretary.*  
 b. *He worked harder.*

and the intransitive in this case is agentive, unergative rather than unaccusative.

We can thus informally sum up the syntax of verbal predicator questions as:

#### Verbal predicator question formation

To question a verbal predicator, deploy a Q-pro-verb and introduce for it a *what* direct object while demoting any other potential direct object to indirect

I use the label “Q-pro-verb” to apply to *happen* and *do* in the relevant examples in (2). The formulation just given is viable only if appeal can be made to unaccusativity (whereby  $R2 \Rightarrow R1$ ) and to the relational reranking of the non-*wh* R2.

It is my belief that reference to neither of these notions should be legitimate within a properly constrained syntax, whether they are conceived of directly in relational terms or as following from positional change (movement). The descriptions envisaged involve rerankings, reassignment of relations – or movement associated with such – within a simple clause. I have argued elsewhere (e.g., Anderson 1980, 1992: Ch. 4) that the positing of such relational/structural changes is empirically unwarranted, and that since they introduce an unnecessary enhancement of the capacity of the grammar, they should not be entertained in principle: there are no intraclausal changes of relation (or the equivalent in

stratal diagrams) or of (in this case) relationally-sensitive position. However, let us lay aside here these general considerations: how satisfactory in its own terms is the account of (verbal) predicator questions in English that I have just sketched out?

We should note first of all that such an account is not particularly revelatory: why should proxy *what* “replace” the direct object? and why should another potential object be demoted to indirect object – rather than, say, oblique (as allegedly in (4b))? Partly the lack of insight follows from the absence of a principled account of objecthood, let alone deep or initial objecthood, and including the distinction between direct and indirect object, whose continuing absence throws doubt on whether there can be such an account (cf. here e.g., S.R. Anderson 1988). But there are also particular indications that this strategy – involving crucially reference to grammatical relations or their defining configurations – is not the direction to look in for illumination, even if we had some hold on objecthood.

Observe, for instance, that responses to (2i) are not limited to verb + object, and the corresponding argument to the object putatively demoted in (2i) is not necessarily itself an object:

- (6) a. *He threw a brick at it.*  
 b. *He took the speakers out of it.*

And not all verb + object combinations constitute equally happy responses; outside some variant of the “X-files”, (7) is not an appropriate response to (2i):

- (7) *He watched it.*

Likewise, the corresponding argument in responses to (2j) is not necessarily subject or object (in accordance with the unaccusative hypothesis):

- (8) a. *Nigel threw a brick at it.*  
 b. *Nigel took the speakers out of it.*

Nor are all (non-agentive) objects/subjects equally felicitous as responses, as is illustrated by the low acceptability of (9) as such:

- (9) a. *Nigel watched it.*  
 b. *It arrived on Tuesday.*

Indeed, Jackendoff (1990: §7.1), for instance, uses such questions as (2i-j) as a test specifically for “patients”, which he regards as an independent relational property additional to the semantic relation, or  $\theta$ -role, borne by an argument; for that very reason patienthood is not to be associated with any one particular syntactic position or grammatical relation.

I have suggested (1998: §3), on the other hand, that there is (contra Jackendoff) at the core of patienthood a rather closer relationship with particular semantic relations. The motivations for this will form the basis for the account of the syntax of proxies proposed below. But before proceeding with looking at these let us introduce some further relevant material that is also problematical for the above formulation of predicative question formation.

(2i-j) are not the only proxy question type that can be responded to with verb + object (2i) or verb + object/subject (2j). We also have (10):

- (10) a. *What did Nigel do with the TV?*  
b. *What became of the TV?*

If these too involve demotion – of the *with-* and *of-*phrases – in favour of the proxy, are these phrases to be distinguished from the *to* phrases of (2i-j) as obliques? What insight is yielded by such a suggestion (involving differential demotion)? How does it relate to the observation that (7), though not a very satisfactory response to (2i-j), is an adequate, if rather banal, response to (10a)? Or the observation that, on the other hand, neither of (9) is a particularly happy reply to (10b)? Appropriate responses to the latter seem to form a subset of those triggered by (2i-j). Thus, (10b) invites a response involving (deictically) “negatively oriented movement” (“away from” some location established as a reference point), including “movement out of existence”:

- (11) a. *It's (been) moved next door.*  
b. *It blew up.*

The “positive” orientation of (9b) is inappropriate, and such “movement” is lacking in (9a). Undergoers of “negatively oriented movement” are readily seen as “patients”; but the converse is not the case. So that interpreting (6) as responses to (10b) involves some inferential effort. None of this emerges in any natural way from the formulation I offered above.

Further, an unaccusative interpretation of (10b), with the “displaced” argument constituting a potential direct object, scarcely seems appropriate, given that either an agentive or a non-agentive intransitive response is acceptable, given appropriate choice of argument; either (12b) or (12c) is an acceptable response to the question in (12a):

- (12) a. *What became of Waring?*  
b. *He died.*  
c. *He emigrated.*  
d. *He took early retirement.*

This assumes, of course, a principled account of unaccusativity, such as Perlmutter originally offered. Even (12d), with agentive transitive verb, constitutes an appropriate response.

In an effort to extricate ourselves from these various undesirable consequences of the syntactic-relational account of proxies outlined above, let us begin, in §2, with a further consideration of the notion “patient”, which will lead to a reformulation of verbal predicator question formation in terms of reference to semantic relations, in particular to the “neutral” semantic relation Anderson (1997a) terms *abs(olutive)*. That is followed, in §3, by a more detailed consideration of argument questions and the role of *abs* in their formation. This is intended to help highlight in some detail what is distinctive about predicator questions. §4 addresses the analysis of nominal predicator questions and offers a formulation of how they are formed. Finally, in §5, we return, via a consideration of adjectival questions that suggests a characterisation that is a blend of nominal and verbal predicator question formation, to verbal predicator questions and a rather more formal account of the formation of the structures realised in (2h-k) and (10), one which again crucially involves *abs*.

## 2. Patients and non-patients

Jackendoff (1990: §7.1) argues that in addition to a conventional set of  $\theta$ -roles there should be recognised an “action tier” of semantic relations comprising the roles of “Patient” and “Actor”. Assignment of these roles to elements cuts across classification in accordance with  $\theta$ -role. So that, for instance, a Patient – or “affected entity” – may be (in his terms) either Theme, as with *the ball* in (13a), or Goal, as with *the tree* in (13b):

- (13) a. *Pete hit the ball into the field.*  
b. *The car hit the tree.*

Both of these NPs meet Jackendoff’s test (1990: 125) based on “the ability of an NP to appear in the frame <(14)>”:

- (14)  $\left\{ \begin{array}{l} \textit{What happened} \\ \textit{What Y did} \end{array} \right\}$  to NP was ...

Anderson (1998: §3) argues that patients are even more widespread than Jackendoff allows. Thus, whereas, as Jackendoff (1990: 127) observes, the Theme object of (15a) is not obviously interpreted as a Patient – witness (15b):

- (15) a. *Bill received a letter.*  
b. *?\*What happened to a/the letter was Bill received it.*  
c. *?\*What happened to Bill was he received a/the letter.*

the Theme in (16a) is much better as such:

- (16) a. *Somebody else received Bill's letter.*  
 b. *What happened to Bill's letter was someone else received it.*

Likewise, although the Goal subject in (15a) is perhaps not an obvious Patient, as indicated by the inferential gap presented by (15c), that in (17a) is again much better:

- (17) a. *Jack received a serious head wound.*  
 b. *What happened to Jack was he received a serious head wound.*

And even the non-subject non-object Goal in (18), unlike that in (13a), allows an obvious Patient interpretation:

- (18) a. *Arnold threw a bomb into the bedroom.*  
 b. *What happened to the bedroom was that Arnold threw a bomb into it.*

Indeed almost any role can be associated with Patienthood given an appropriate choice of participants and circumstantials in the predication.

We can perhaps make a distinction, however, between the Patients in (16-18) and those in (13). The former are indeed *contextual patients*, whose Patienthood can be contextually established or suppressed; they may be associated with a range of  $\theta$ -roles. A particular argument of certain predicators, however, is inherently a Patient, and its Patienthood is difficult to suppress: this is the case with (13). Moreover, such Patienthood is not independent of the  $\theta$ -roles, or semantic relations, assigned to the argument. These *categorial patients* are either Themes – or, in terms of Anderson (1997a; 1998), *absolutives* – involved in “negative” movement, as with *the ball* in (13a) and *it* in (11), or Themes/abs(olutives) that are also Goals, as with *the tree* in (13b). The former type, a Patient which is an abs involved in a “negative movement”, can have its predicator questioned by the like of either (2i/j) or (10b). The latter, abs Goals, are questioned by (2i/j): to offer e.g. (13b) as an answer to the equivalent of (10b) – i.e. *What became of the tree?* – leaves some inferential work to be done by the questioner. The description of these latter Patients, as involving an argument whose role is identified by a combination of two semantic relations (abs and Goal), requires some further comment at this point.

Pinker's (1989) discussion of English “lexical causatives” provides a convenient starting point here. Concerning these, he proposes (1989: 85): “a verb that specifies an argument that is both a patient and a theme ... is a causative verb. The agent, by acting on a patient, causes it to change state or location.” And he goes on, taking the sentence in (19) as a text:

- (19) *I hit the wall.*

to describe Patienthood as follows:

A patient is acted or impinged upon or inherently involved in an action performed by an agent but does not necessarily undergo a specified change. Of course, in real life a patient may undergo a change of state or location, but if it does, the verb does not care what the change is (e.g. the wall could shatter, fall over, or tumble down a hill, and the verb *hit* would be equally appropriate). However, the patient must be inherently involved in or affected by the action, playing a role in defining what the action consists of. For example, moving one's hand to within a fraction of an inch of the wall, even if the accompanying wind or static electricity causes the wall to fall over, would not count as *hitting the wall*, because the kind of motion or act denoted by hitting is inherently defined as terminating in contact with some patient.

Now, Pinker's idea of causative seems to be unduly restricted. Verbs of creation (factitives) are usually regarded as causative – and are sometimes overtly marked as such, as with *fabricate*, which bears a suffix which is either causative or merely inchoative; but their abs argument is hard to see as a Patient, in that they come into existence as a result of the action – and they certainly fail Jackendoff's test:

- (20) *\*What Fred did to the excuses was fabricate them.*

Factitives involve a kind of “positive movement” (“into existence”). And other “positive movement” sentences involving verbs that would also usually be regarded as causative also fail the Patienthood test, unless heavily contextualised in such a way as to introduce “negativity”:

- (21) *?\*What Bill did to the books was bring them here.*

There are problems too with the above description of the predication types that Patients may appear in, which do not necessarily involve external agency, as evidenced by (one interpretation of) (11) and by (22a), which does not present the process as agent-induced, but involves simply the Patient highlighted in (22b):

- (22) a. *The car rusted away.*  
 b. *What happened to the car was it rusted away.*

However, what is of interest here is a comparison between Pinker's and Jackendoff's characterisations of Patienthood itself.

If we restrict ourselves to categorial Patients, Jackendoff's examples fall into two sets which can be characterised in terms of the types I suggested above: abs/Theme in “negative movements”, and abs Goals, which latter are for Jackendoff merely Goals, apparently. Pinker, on the other hand, assigns

Patienthood to a subset of abs/Themes, with no invocation of Goals, despite the terminology used (“acted or impinged upon”, “inherently involved in” ...), but he likewise distinguishes between “a change of state or location”. I suggest we can identify the arguments associated with the former of these (“change of state”) with what I’m describing as abs Goals; the latter involve an abs undergoing a “negative” change of place. Jackendoff associates Patienthood with either Themes or Goals; for Pinker Patients are Themes. My proposal agrees with Pinker’s in associating abs with Patienthood (while differing in allowing Patienthood in the absence of an Agent). But I’m suggesting further that categorial Patienthood is epiphenomenal: it is a property of abs involved in “negative movement” or abs combined with Goal.

Henceforth I shall deploy the terms abs and erg (rather than, say, Theme or Objective and Agent/Experiencer) to underline not just the distinctive semantic character of the relations invoked – with erg being the “source of the event” and abs being the default relation whose precise interpretation is most intimately dependent on the semantics of the verb (cf. e.g. Moravcsik 1978) – but also their combinability with other relations to allow for complex roles such as the Experiencer, which combines location with erg. Likewise, I use Anderson’s (1997a) terms *loc(ative)* and *abl(ative)* in the representations that follow in the next section rather than Goal and Source. In these terms, (categorial) Patienthood is associated with an argument of a dynamic predicator that is either an abs argument in a “negatively-oriented” journey (13a) or an abs in a dynamic predication that is also loc (13b).

The central status of dynamic loc, or Goal, with Patients goes some way towards accounting for the marking of the Patient argument displaced by the proxy question word, as a *to*-phrase. The *happen to/do to* questions are distinguished from *become of* by inviting responses which may involve an abs Goal argument as well as a “negative-movement” abs, which latter can also be invoked by *become of*: the abs Goal variant is distinctive for the question construction. *To* is elsewhere the unmarked Goal marker. An abs Goal argument normally is unmarked, and is often regarded as an object, in the presence of an erg subject. We have seen there are problems with characterising objecthood. But we can capture something of what is involved if we follow Anderson (1997a: §3.3.3) in saying that an object is (whatever else may be involved) an abs argument denied subjecthood, typically by an erg argument, which, as elsewhere, outranks abs. (I am, of course, assuming here that grammatical-relation-status is derivative of the array of semantic relations associated with a predicator.) The formation of the proxy questions in *to* involves the “displacement” of the abs Goal from subject (with *happen*) or object (with *do*) by the proxy. It is unsurprising that the “displaced” core (subject/object) argument should have its

Goal nature surface in the form of the preposition otherwise used for (non-subject, non-object) Goal phrases.

Likewise, the marking of the “displaced” subject in (10b) and (12a) can be given a natural interpretation. It is marked with *of*. This is, among other things, a typical marker of an abs denied object position in a “negative movement” sentence, as illustrated by (23):

- (23) a. *The fraudster robbed Bessie of all her money.*  
 b. *They deprived him of any excuse.*

Compare with e.g., (23a) such constructions as that of (24):

- (24) *The fraudster stole all her money from Bessie.*

with abs object and overtly marked Source. Note that I am not claiming that (23a) and (24a) display the same array of semantic relations, merely that they share the crucial ones alluded to. Indeed, I suggest that the objects in (23) are abs (like other objects) as well as abl, Source: we have abs Sources. It is by virtue of being both abs and Source that they outrank the simple abs with respect to objecthood. In (10b) and (12a) the abs undergoing movement has also been “displaced”, in this case from subjecthood and by the proxy. In both instances *of* marks a “displaced” abs in a “negative journey” predication. As noted, in response to (12a) an abs argument which may or may not be agentive (abs + erg vs. simple abs) may be offered, undermining any unaccusative interpretation of possible responses:

- (12) a. *What became of Waring?*  
 b. *He died.*  
 c. *He emigrated.*

(12c) is an agentive intransitive, with abs + erg subject; (12b) is non-agentive, with abs subject.

What of the “displaced” argument in (10a)?

- (10) a. *What did Nigel do with the TV?*

It is marked with *with*. This sentence invites as a response merely an agentive predicator compatible with the lexical semantics of the sentence; in particular it is not limited to predicators with “negative movement” abs or to Patients in general:

- (25) a. *He brought it home.* (“positive journey”)  
 b. *He watched it for hours.* (non-patient)

It is a general non-factitive abs – non-factitive given the anomaly of (26) as an answer to (10a):

(26) *He built it from scratch.*

Contrast with (10a) something like (27):

(27) *What did he have to do with the TV?*

(in the sense of “what was his connexion with the TV”), which allows, among other things, a factitive response such as (26), and a response in which *he* is not agentive:

(28) *He inherited it.*

Again, the use of *with* in (10a) and (27) is not surprising. *With* is in general a marker of “displaced” abs, as in (29):

(29) a. *Bill loaded the cart with junk.*  
b. *Bill loaded junk on(to) the cart.*

Here the abs argument *junk* is “displaced” by the Goal *the cart*: cf. (29b). Again, I interpret the object in (29a) as simultaneously abs and loc/Goal: we have a subtype of Patient, usually referred to as involving a “holistic” interpretation, with the entity denoted by the (simple) abs exhausting the relevant dimensions of the abs Goal. (29a) is an appropriate response to (30a) as well as (30b):

(30) a. *What happened to the cart?*  
b. *What was done with the cart?*

*With* is a generalised marker of “displaced” abs; when a “negative journey” abs is involved, *of* is appropriate; we can differentiate a “displaced” abs Goal as *to*. There is a natural basis to the marking of the abs arguments displaced by proxies. That is, it is consistent with the use of these markers elsewhere, given my analysis of the “displacees”.

Another claim, based on what has emerged in the preceding discussion, has been embodied in the statement that ends the previous paragraph: all the displaced arguments are abs (whatever else they might be). We can thus substitute for the syntactic-relation-based predicator formation of §1 a semantic role-based alternative:

#### Verbal predicator question formation

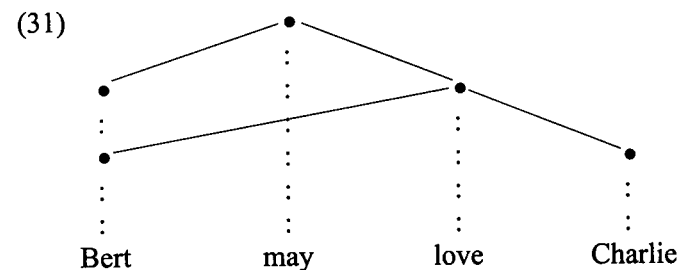
To question a verbal predicator deploy a Q-pro-verb and introduce a *what* abs compatible with its subcategorisation; this abs displaces to adjunct status any subcategorised for abs also present

The question then arises: why abs? Does this permit an answer any more interesting than to “why direct object?”

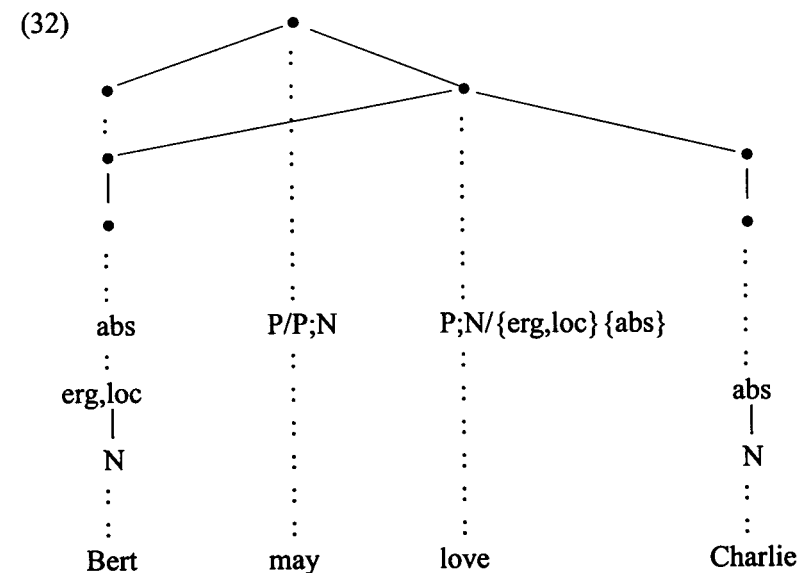
The next section looks at the role of abs in questions in general, as a background to what follows. The subsequent sections consider the consequences of this for our interpretation of the syntax of proxy questions, as well as giving more careful attention to the predicator-question-formation formulation itself.

### 3. Free absolutes and argument questions

Anderson (1997a: §3.3.4) argues that the double dependency exhibited by (the nodes associated with) *Bert* in the syntactic structure of (31):



is associated with a *free* or unsaturated abs relation contracted by *may*, as made explicit in (32), which extends the representation to include categorial information:



*Bert* and *Charlie* are categorially names which depend on functors bearing the semantic-relational features {erg,loc} and {abs} respectively; the functors here (elsewhere realised as e.g. adpositions) are not given separate linear placement, as indicated by the vertical dependency arc. These semantic relations satisfy the valency of the verb *love*, indicated to the right of the slash in its categorial representation. Names are characterised by the presence in their (primary) categorialisation of N alone (the naming feature); the modal *may* is associated with the presence of the P (predicativity) feature alone, which confers finiteness. Common nouns combine N and P, with N being preponderant, indicated as {N;P}: the preponderant feature appears to the left of the semi-colon. Common verbs, like *love*, have P preponderant over N, as illustrated in (32). *May* is shown in (32) as subcategorised for {P;N} alone, satisfied by *love*. But in (32) it has a dependent abs, too. This abs, associated with the node dependent on and to the left of the root, is introduced by a general requirement that predications contain an abs; if such is not specified in the predicator's subcategorisation, a free abs is introduced.

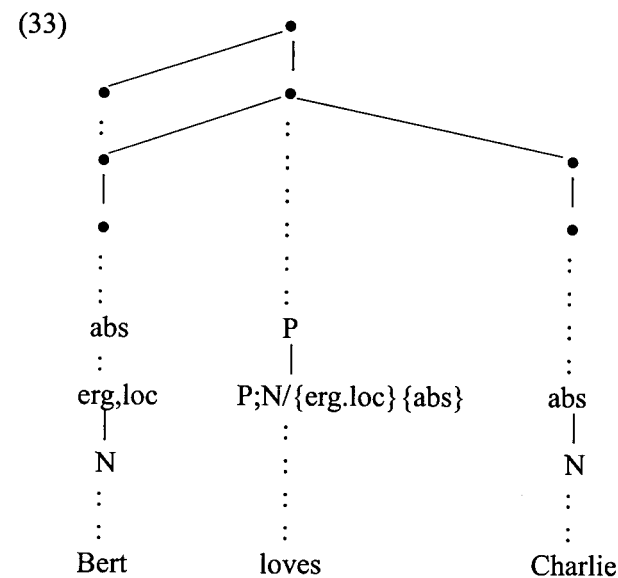
The syntactic tree is erected on the basis of the categorial information, with each category projecting a node and with categories being made dependent on the elements whose valencies they satisfy. The node associated with the unsaturated abs depends on the abs-free predicator, and serves as a host to the argument of *love* that is highest on the subject selection hierarchy, *Bert*, which assumes a second semantic role thereby, and which thereby also satisfies the requirement that that abs, like any functor, be satisfied by a dependent argument. This involves a non-movement analogue of raising. Linearisation is in accord with dependency (head-left) except in the case of the dependent free abs, which precedes its head.

Anderson (1997a: §3.3.4) also suggests that formation of the syntactic subject is a sub-case of raising. A modal such as *may* is categorially {P}, associated with their distribution as finites. Common verbs are {P;N}, associated with a distribution that is basically non-finite. Non-modal auxiliaries are both {P} and {P;N}. The common verbs are enabled to occupy a finite position by virtue of the *secondary finiteness* redundancy:

Secondary finiteness

$$\begin{array}{c} \text{P} \\ | \\ \text{P;N} \end{array} \Rightarrow \text{—}$$

This creates a complex categorialisation which permits common verbs to be finite where the head of the sentence, P, and the head of the verb phrase, P;N, can occur in the same position (basically, in non-NICE circumstances). This is shown in (33):



in which the *Bert* argument satisfies both the {erg,loc} requirement of the {P;N} category and fills the free abs dependent on the {P} introduced by secondary finiteness. Again, the argument whose relational specification is highest on the subject selection hierarchy is "raised" to fill the unsaturated abs position.

The syntactic subject will often but need not coincide with the morpho-syntactic subject, marked by imposing concord on the verb, as with *Bert* in (33). The subjects do not coincide in (34a), for instance:

- (34) a. *There remain a few exceptions.*  
 b. *Here comes the bus.*

Anderson (1997b) suggests that the structures in (34) are a residue of the Old English "verb-second" construction, wherein occupation of the immediate-pre-verbal position was not regulated by the subject selection hierarchy. If *there* in Present-day English (34a) is an expletive, we can regard it as a default syntactic subject inserted in the absence of selection of a full subject, with *a few exceptions* being morphosyntactic subject only; and *there* shows inversion, whereby (according to Anderson 1997c) it retains its status as syntactic subject of *remain* but not of the auxiliary in (35a), just like any other syntactic subject, as illustrated by (35b):

- (35) a. *Do there remain a few exceptions?*  
 b. *Has John remained in London?*

Neither *there* nor *John* is the syntactic subject of the preceding auxiliary (in English syntactic subjects precede their predicators), but they are both subject of



*remain(ed)*. However this can scarcely be the case with (34b), which represents an unassimilated residue of the “verb-second” structure, lacking a proper syntactic subject completely: *here* is not a subject. These intransitive locational predications allow the head of the sentence and the head of the verb phrase to occupy the same position, so the verb that intervenes between the two dependents can be a common (non-auxiliary) verb. The constructions in (36) and (2b-i) also illustrate a residue of “verb-second”:

(36) *Seldom had he seen such a mess*

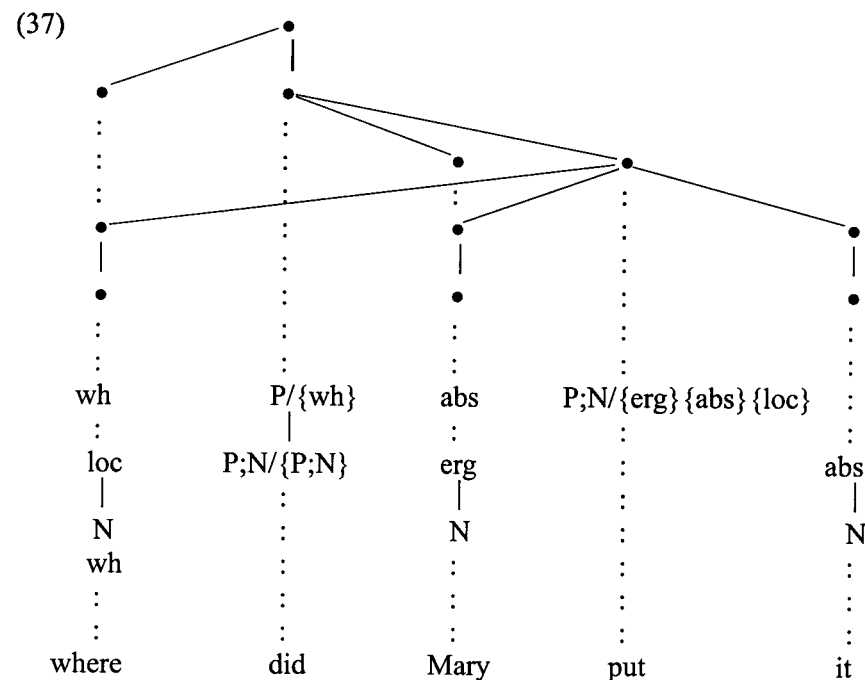
but they allow a range of different verb types, and the intervening verbal must be auxiliary. The *wh*-forms of (2) represent the most systematic and pervasive departure in Present-day English from the principle that immediate-pre-verbal position is occupied by (if anything) a subject. The various immediately post-finite-verbal nominals in (2) – and (36) – are morphosyntactic but not syntactic subjects of the finite verb.

Anderson (1997a: §3.6.2) suggests that presence of a (participant or circumstantial) argument that is questioned overrides the normal process of subject selection, and the questioned argument comes to occupy the position otherwise accorded to the subject. This is associated with the *interrogativisation* redundancy:

Interrogativisation

$$|P| \Rightarrow \begin{array}{c} P/\{wh\} \\ | \\ \_ ;N \end{array}$$

which adds a governed N and a superjoined P to any element characterised by P on its own (“|P|”), i.e. an auxiliary or other finite verb (created by secondary finiteness). The superjoined P takes a special kind of abs which, though, like free abs, serving as a host to another argument, hosts only a questioned, *wh* element. This provides for the structure for (2d) given in (37):



*Mary* is raised to fill the free abs of the P;N component of *did*, but fails to occupy subject position by virtue of its being occupied by a *wh* element. In (2a) the *wh* element would have been subject anyway, and the “overriding” effect is not apparent, though *who* depends three times on *said*, which, as a result of secondary finiteness and interrogativisation, incorporates three component predicator categorisations.

This provides a sketch of the syntax of argument questions, and an account of the crucial role of abs therein. But what of predicator questions?

#### 4. Nominal predicator questions

Wh can be realised only when it is a feature of N, which introduces nominal arguments. Questioning the predicators in (2g-k) involves, in a rather obvious way, a proxy question word. Before looking at the syntactic mechanism associated with these proxies, let us return to questions of the (2f) type, another example of which is given here with some related variants:

- (38) a. *What did they become?*  
 b. *What did they turn into?*  
 c. *What were they?*

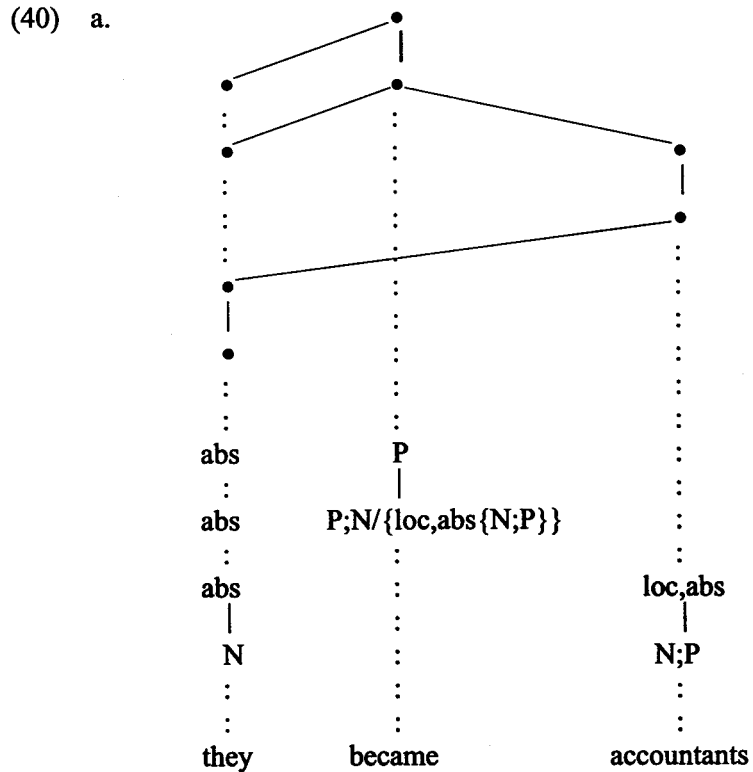
I shall argue that on one (predicative rather than equative) interpretation these also involve a proxy strategy despite each of them invoking as the most natural

response a nominal. For these too may involve (nominal) predicators that (of course) do not have a question pronoun, which is limited to arguments. Specifically the *wh* forms here occupy an argument position which otherwise is associated with the corresponding equative, rather than predicative, structures. Let me spell this out in more detail.

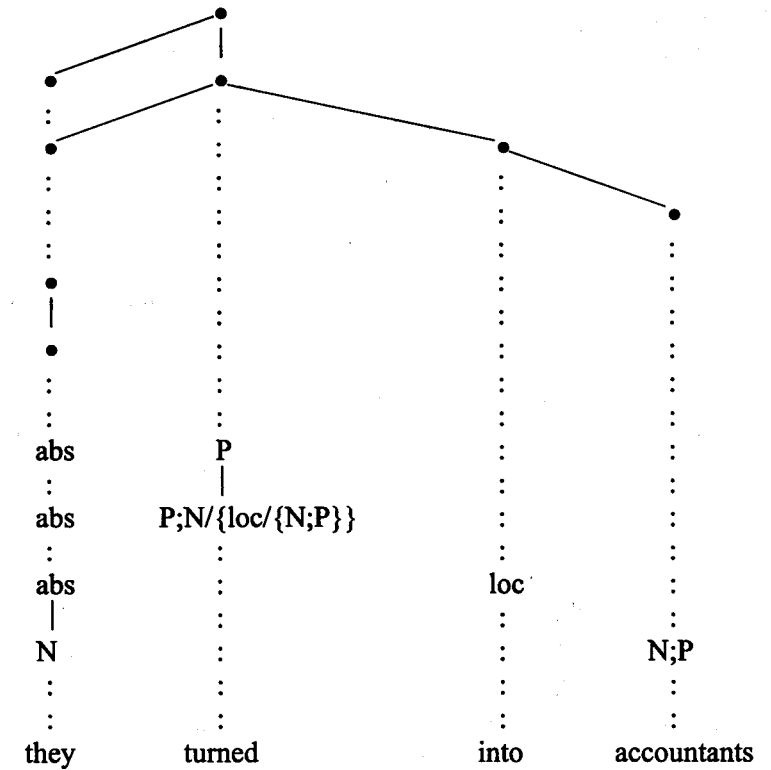
Each of the verbs in (38) may be associated with a predicative nominal structure, as in (39):

- (39) a. *They became accountants.*  
 b. *They turned into accountants.*  
 c. *They were accountants.*

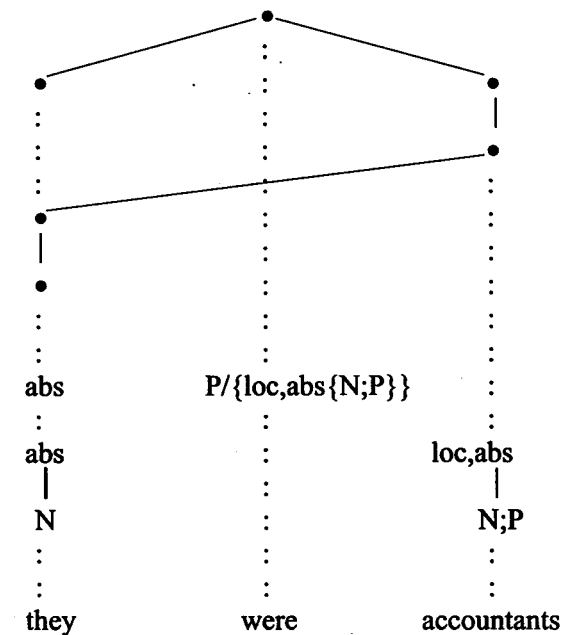
In these sentences the verb governs a nominal predicator, possibly via a functor carrying a semantic relation, as shown in (4):



b.



c.



*Become* and *turn* are directional verbals, denoting movement into a class; and *be* is locational, as well as being copular/auxiliary, so P rather than P;N. *Be* can also appear in a simple non-locational predicative, where some classification regarded as permanent is involved, as in (41):

(41) *Moppy and Muriel are quadrupeds.*

in which case I assume the copula governs the predicative N;P directly, as implied in Anderson (1997a), or via a simple abs. But what is most significant is that in each of the sentences in (39) and (41) the second nominal is a predicator.

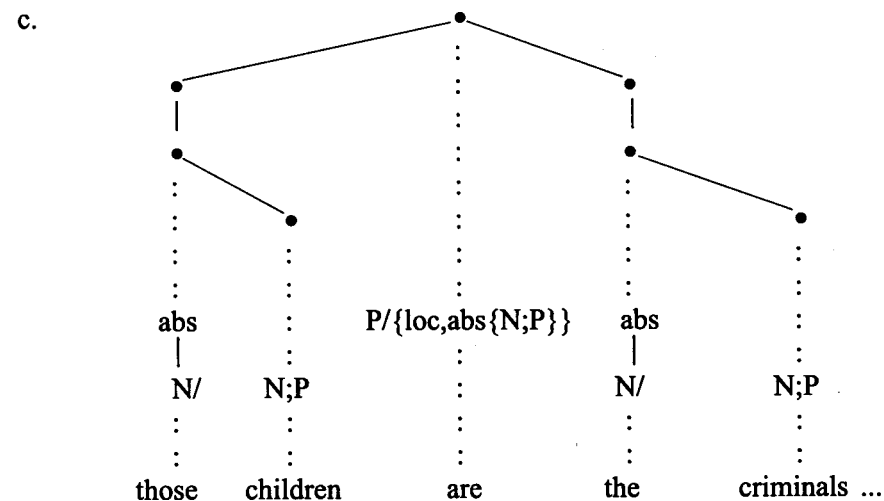
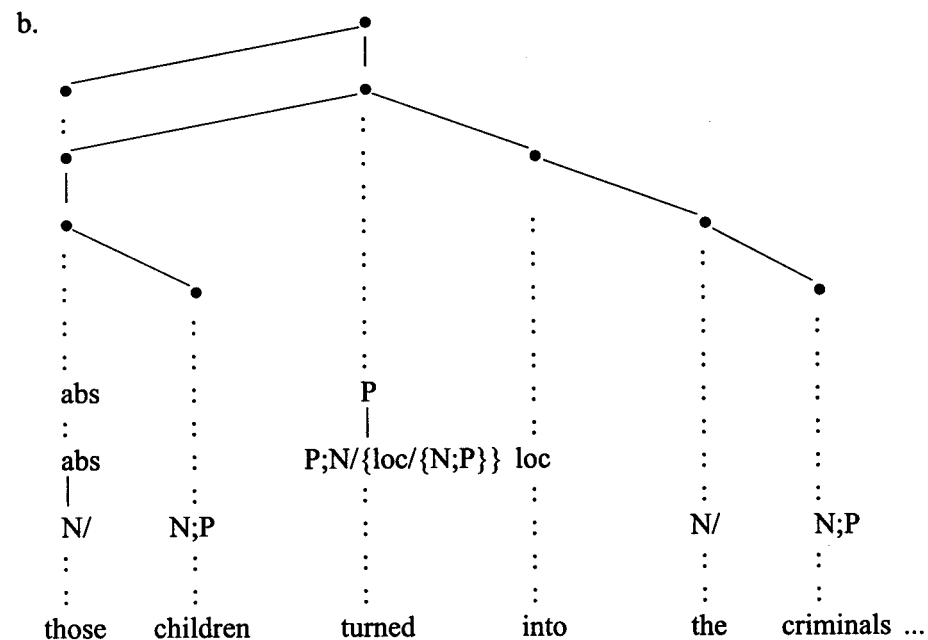
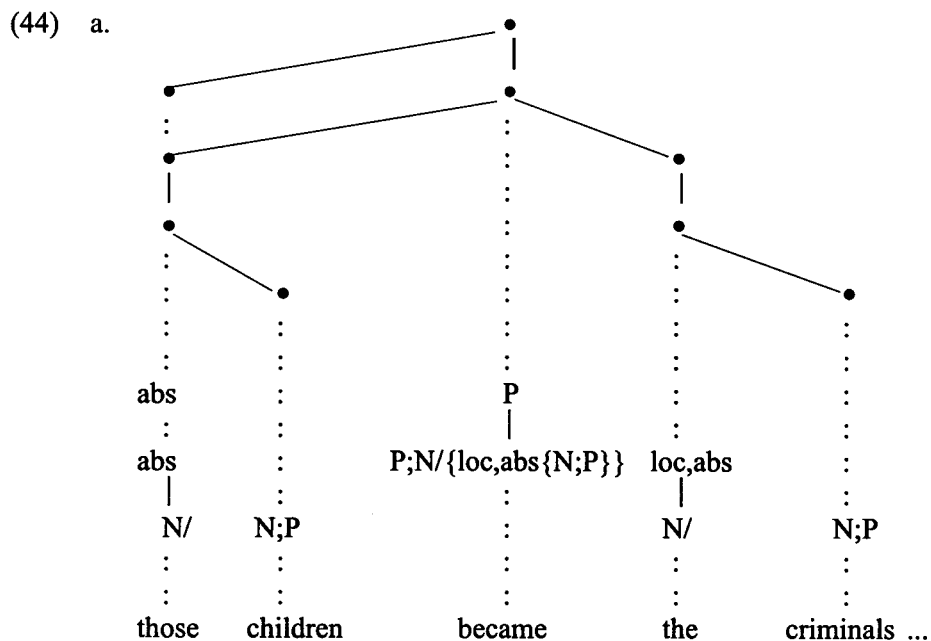
Contrast with these the post-verbal arguments in (42):

- (42) a. *Those children became the criminals you see before you.*  
 b. *Those children turned into the criminals you see before you.*  
 c. *Those children are the criminals you see before you.*

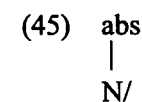
which are responses to argument questions with *who*:

- (43) a. *Who did those children become?*  
 b. *Who(m) did those children turn into?*  
 c. *Who are those children?*

Nominal arguments involve a {N} category, typically (but not necessarily) realised as a determiner, which as “transitive pronouns” are {N/...}, as represented in (44):



Both *those very children* and *the criminals you see before you* are constructions headed by the configuration in (45):



and as such either is available for subject selection, in being hierarchically indistinguishable as arguments that are both abs, as witnessed by (46) alongside (42c):

(46) *The criminals you see before you are those children.*

Notice too that though the postverbal nominals in (39) and (42) can be said to differ in definiteness also, not all arguments are definite, of course. Cf. the equative in (47):

(47) *His opponents are (some) farmers from Yorkshire.*

with an indefinite post-verbal non-predicative nominal.

I'm suggesting, then, that the proxies in the case of nominal predicators take up an argument slot corresponding to (what would become) the non-subject argument in the equivalent equative constructions available to the verbs involved. The predicative nominal question is parasitic upon the equative structure, with its "extra" nominal argument. We can formulate this as:

#### Nominal predicator question formation

To question a nominal predicator introduce in place of this predicator a *what* argument compatible with the subcategorisation of the governing verbal predicator

This differs in two respects from verbal predicator question formation:

#### Verbal predicator question formation

To question a verbal predicator deploy a Q-pro-verb and introduce a *what* abs compatible with its subcategorisation; this abs displaces to adjunct status any subcategorised for abs also present

Firstly, with nouns the proxy argument is substituted for the predicator rather than being added; secondly, no "displacement" is involved with nominals. Before returning to the characterisation of verb questions, let us look briefly at the adjective type of (2g), the formation of which, unsurprisingly (given e.g. Anderson 1997a: §2.3.4), can be seen as intermediate between the noun and verb types.

#### 5. Verbal predicator questions

*Like*, the pro-adjective in questions inviting predicative adjective constructions in response, as illustrated by (2g):

(2) g. *What is Jo like?*

may take elsewhere, like *become*, either a nominal predicator or a nominal argument:

- (48) a. *Jo is like a woman possessed.*  
b. *Jo is like her sister.*

Only the latter is a natural response to (49):

(49) *Who(m) is Jo like.*

which invites a nominal argument response, as well as possibly being a kind of indirect answer to (2g). (48a) provides a more obvious kind of answer to such a question. But so does (50):

(50) *(Jo is) mad.*

As I've suggested, the *what* in (2g) can be interpreted as a proxy question form for adjectival predicators.

We can thus perhaps formulate the formation of such questions as follows:

#### Adjectival predicator question formation

To question an adjectival predicator deploy a Q-pro-adjective and introduce in place of its dependent predicator a *what* argument compatible with its subcategorisation

Adjective questions thus, like verb questions, involve a pro-form; but, as with nouns, the *wh*-element substitutes for a predicative, and there is no "displacement".

As we have seen, the proxy with verbs is always an abs that "displaces" a rival abs that may be present to adjunct status. Recall (2i), (2j) and (10a):

- (2) i. *What did Nigel do to the TV?*  
j. *What happened to the TV?*

(10) a. *What did Nigel do with the TV?*

I am assuming that the first two involve "displacement" of a Patient, loc + abs, marked by *to*, and the third "displacement" of a simple abs, marked by *with*, as proposed in §2. As adjuncts, these "displaced" abs forms are optional, as illustrated by (2h) and (2k):

- (2) h. *What did Nigel do?*  
k. *What happened?*

with only a proxy abs.

We have the same kind of lexical derivation in the case of such forms as is found with the “holistic” formations mentioned in §2:

- (29) a. *Bill loaded the cart with junk.*  
 b. *Bill loaded junk on(to) the cart.*

Anderson (1997a: 200-201) suggests that the verb in (29a) is derived from that in (b) by lexical incorporation of its abs argument and addition of abs to the loc of the basic verb’s argument structure:

#### Holistic verb formation

$$\begin{array}{ccc} P;N/\{abs\}\{loc\} & \Rightarrow & P;N/\{loc,abs\} \\ hol & & hol \\ & & | \\ & & abs \end{array}$$

The “displaced” abs in (29a), which is also readily omitted, is thus interpreted as an adjunct co-indexed with the incorporated abs. Likewise the *by*-phrase in passives is an adjunct coindexed with an incorporated erg. Abs arguments, however, are the most susceptible to incorporation (Anderson 1997a: §3.5), and such incorporations crucially introduce a “replacement” abs associated with a non-incorporated argument. The loc argument of a holistic verb has abs added to it.

Q-pro-verbs involve again an incorporated abs (which here is optionally also loc, to allow for the Patient variants), and introduction of abs, not added to the existing loc in this instance, but “free-standing” and recipient of a copy of the wh feature which the verb cannot express:

#### Q-pro-verb formation

$$\begin{array}{ccc} P;N/\{abs <loc>\} & \Rightarrow & P;N/\{abs\{N\}\} \\ wh & & | \quad wh \\ & & abs <loc> \end{array}$$

And the “displaced” abs in (2i), (2j) and (10a) is once more co-indexed with the incorporated abs. This is again a “pre-syntactic”, lexical formation. Verbal predicator question formation thus differs from that associated with other predicators in involving incorporation of an abs and provision, as with other such incorporations, of a new abs, which in this instance provides a slot for the proxy. We return in a moment to the non-verbal constructions

What, at this point, of (10b), however, in the light of the preceding discussion?

- (10) b. *What became of the TV?*

The allegedly “displaced” abs does not appear to be simply an adjunct. It is thus not omissible:

- (51) \**What became?*

Nevertheless, is the post-verbal phrase of (10b) not “displaced”, in some sense? As discussed in §2, the marking with *of* is suggestive of such. And compare (39a) and (42a):

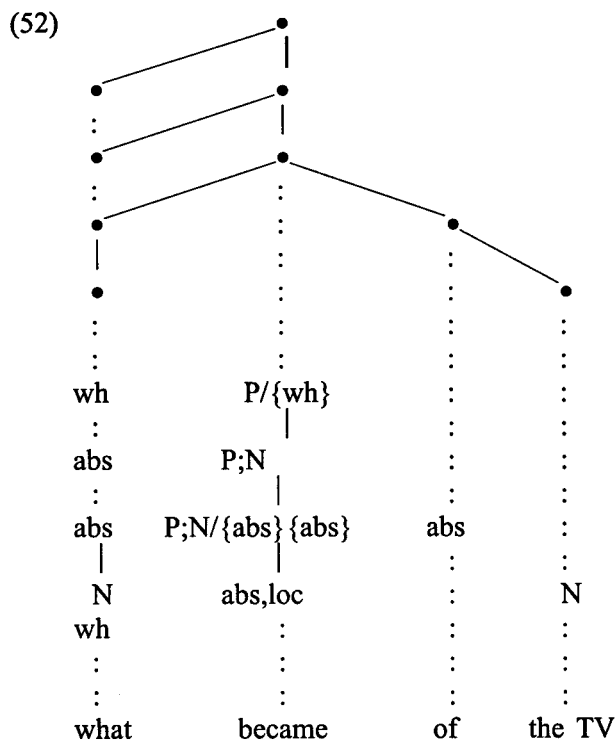
- (39) a. *They became accountants.*  
 (42) a. *Those children became the criminals you see before you.*

*Of the TV* corresponds in terms of its semantic role with the subjects of these sentences. And it is the equivalent of them and not the proxy that is subject of the verb *become* in the corresponding question:

- (38) a. *What did they become?*

whereas in (10b) it is the proxy which is subject. This divergence is itself a clue, I suggest, to the syntax of (10b).

*Become* is a verb that takes two abs arguments: in (39a) and (42a) the subject is an abs and the postverbal element is an abs + loc, this being predicative in (39a) but not in (42a). Recall here (40a) vs. (44a). In the noun predicator question of (38a) the proxy *wh*-form substitutes for the nominal predicate. If (10b) is the verbal equivalent, the proxy will be an abs which “displaces” an abs + loc incorporated into the verb, in accordance with Q-pro-verb formation. We can thus associate with (10b) the structure in (52):



The lower half of the line of categories above *became* shows the results of Q-pro-verb formation, whereby the verb comes to have two simple abs arguments; the basic lexical categorisation of *become* is as in (53):

(53) P;N/{abs}{abs,loc<{P}>}

where the optional “{P}” allows for predicative uses. One abs in (52) is filled by the proxy *what*, the other by *of the TV*. Either abs, as hierarchically equivalent, may be selected as subject. Selection of *of the table* would result in a sequence indistinguishable from (38a). Selection of the proxy results in (10a), with the *what* successively satisfying, as shown in (52), the free abs of subjecthood and the wh introduced by the question predicator.

With *devenir* ‘become’ in French the non-proxy abs is selected as subject in the construction equivalent to (10a). So that (54) may be associated with the meanings attributable to both of (10a) and (38a):

(54) *Qu’est-ce qu’ils sont devenus?*  
what-is-it that-they are become  
(= ‘What have they become? What has become of them?’)

(54) neutralises the distinction marked in (10a) vs. (38a). This neutralisation is blocked in English.

Here, in the analysis of (10a), as elsewhere in the syntax of verb questions, crucial is the special status of abs – as potentially free (unsubcategorised-for), as constituting the argument type most amenable to incorporation, and as potentially labelling two complements of the same verb. An account which ignores semantic relations, on the other hand, throws very little light on the variety of predicator questions and in particular on the mechanism of proxies.

Q-pro-verb formation is intended to give more explicit expression to verbal predicator question formation. Similarly, we should provide for adjectival predicator question formation by way of a Q-pro-adjective formation rule:

Q-pro-adjective formation

$$P:N/\{abs\}\{abs,loc\} \Rightarrow P:N/\{abs\}\{abs,loc\}\{N\}$$

wh                      wh                      wh

and nominal predicator questions by simple proxy formation:

Nominal proxy formation

$$N$$

wh

|

$$N;P \Rightarrow \text{—}$$

wh

The verbal and adjective rules also incorporate proxy formation, but this is dependent on copying of the wh feature to a distinct argument.

## REFERENCES

- Anderson, John M.  
1977 *On case grammar: Prolegomena to a theory of grammatical relations*. London: Croom Helm.  
1980 “Anti-unaccusative, or: Relational grammar is case grammar”, *Revue roumaine de linguistique* 25: 193-225.  
1992 *Linguistic representation: Structural analogy and stratification*. Berlin: Mouton de Gruyter.  
1997a *A notional theory of syntactic categories*. Cambridge: CUP.  
1997b “On variability in Old English syntax, and some consequences thereof”, *Transactions of the Philological Society* 95: 9-40.  
1997c “Preliminaries to a history of sentential subjects in English”, *Studia Anglica Posnaniensia* 31: 21-28.  
1998 “The domain of semantic roles”, in: József Andor – Béla Hollósy – Tibor Laczkó – Péter Pelyvás (eds.), 1-38.

- Anderson, Stephen R.  
1988 "Objects (direct and not-so-direct) in English and elsewhere", in: Caroline Duncan-Rose – Theo Vennemann (eds.), 287-314.
- Andor, József – Béla Hollósy – Tibor Laczkó – Péter Pelyvás (eds.)  
1998 *The diversity of linguistic description: Studies in linguistics in honour of Béla Korponay*. Debrecen.
- Duncan-Rose, Caroline – Theo Vennemann (eds.)  
1988 *On language: Rhetorica phonologica syntactica. A festschrift for Robert P. Stockwell from his friends and colleagues*. London – New York: Routledge.
- Jackendoff, Ray S.  
1990 *Semantic structures*. Cambridge, Mass.: The MIT Press.
- Jespersen, Otto  
1924 *The philosophy of grammar*. London: George Allen & Unwin.
- Moravcsik, Edith A.  
1978 "On the distribution of ergative and accusative patterns", *Lingua* 45: 25-40.
- Perlmutter, David  
1978 "Impersonal passives and the unaccusative hypothesis", *Proceedings of the Annual Meeting of the Berkeley Linguistic Society* 4: 157-89.
- Pinker, Steven  
1989 *Learnability and cognition: The acquisition of argument structure*. Cambridge, Mass.: The MIT Press.