

# ON THE POLISH PERIPHERY: COMPARATIVE CORRELATIVES IN POLISH<sup>1</sup>

Robert D. Borsley  
University of Essex

Im dalej w las, tym więcej drzew.

‘The further into the wood (you go), the more trees (there are).’

(Polish saying)

## 1. Introduction

A notable feature of recent work in syntactic theory is a new interest in the periphery of language. Particularly important here is Culicover (1999). Among other matters, Culicover discusses the English comparative correlative construction (also known as the comparative conditional), and this is discussed in some detail in Culicover and Jackendoff (1999). (1) is a typical example.

(1) The more I read, the more I understand.

In this paper I will look at the Polish comparative correlative construction and consider its theoretical implications. I will argue that it poses problems for the minimalist framework, but that the Head-driven Phrase Structure Grammar (HPSG) framework can provide a straightforward account of the facts.

The paper is organized as follows. In section 2, I discuss some relevant background, and in Section 3, I introduce some data and draw a number of conclusions. Then in section 4, I consider the implications of the data for the minimalist framework, and in section 5, I develop an HPSG analysis. Finally, in section 6, I conclude the paper.

## 2. Background

Two very different trends may be observed in recent syntactic theorising. In recent work, Chomsky has tended to narrow the range of syntactic research to constructions which can be seen as a relatively pure manifestation of broad, general patterns and has suggested that various traditional syntactic phenomena fall outside the scope of syntax proper. Thus, he suggests that XP-adjunction ‘may not belong to the system we are discussing here’ (Chomsky 1995: 325). Similarly, he proposes that ‘the V-second property ... may belong to the phonological component’ (1995: 368).

In sharp contrast, Culicover (1999) and Culicover and Jackendoff (1999) argue that the periphery of marked constructions in a language is large and that there is no break between the core and the periphery. Culicover (1999: vi) suggests that there is ‘a continuum along which a full spectrum of possibilities can be found, from very idiosyncratic to very general’, and Culicover and Jackendoff (1999: 544) argue that ‘... an empirically adequate syntactic theory should be able to account for the full range of phenomena that actually exist in natural language’. The comparative correlative (CC) construction, apparently first discussed in Ross (1967, 6.1.2.6) and subsequently discussed *inter alia* by McCawley (1988) and Culicover and Jackendoff

(1999), is a notable peripheral construction. Culicover and Jackendoff remark that the CC construction is a case where ‘the mapping of syntactic structure into conceptual structure is more or less arbitrary’ (1999: 568). However, a variety of languages have a CC construction rather like the English construction, and it seems unlikely that languages vary without limit in this area. Here are examples from a number of languages, including Polish:

(2) French (Beck 1997)

Plus quelqu’un est grand, plus il a de grand pieds.  
more somebody is tall more he has of big feet  
‘The taller somebody is the bigger his feet are.’

(3) German (Beck 1997)

Je müder Otto ist, desto aggressiver ist er.  
the tired -er Otto is the aggressive -er is he  
‘The more tired Otto is, the more aggressive he is.’

(4) Greek

Oso pio poli diavazo, toso pio poli katalavono  
as-much more much read.1SG that-much more much understand.1SG  
‘The more I read, the more I understand.’

(5) Maltese (Beck 1997)

Aktar ma jkun kiesah avuka, aktar ikollu success.  
more PART is cold attorney more has success  
‘The colder an attorney is, the more success he has.’

(6) Polish

Im bardziej zmęczony jesteś, tym gorzej pracujesz  
IM more tired you-are TYM worse you-work  
‘The more tired you are, the worse you work.’

(7) Welsh

Mwya dw i’n ddarllen, mwya dw i’n ddeall.  
most am I PROG read most am I PROG understand  
‘The more I read, the more I understand.’

Culicover and Jackendoff also note that ‘[i]t is surely significant that many other languages have similar constructions expressing the comparative correlative reading found in CCs, although specific syntactic properties of the constructions differ from language to language’, and go on to suggest that ‘[m]ore cross-linguistic work is called for on this and other idiosyncratic constructions’ (1999: 569).

Although Culicover and Jackendoff (1999) discuss the English construction at some length, they do not develop a formal analysis, and they do not consider whether some theoretical framework might be more able than some other to accommodate the data. The same limitation is found in Culicover (1999), as Fodor (2001) notes. This is unfortunate since, as Fodor emphasizes, it is reasonable to suppose that peripheral constructions may help to choose between theories of syntax. As she puts it:

‘The descriptive apparatus of one linguistic theory might well be more adaptable than that of a competitor for the purposes of explaining why learners encode peripheral constructions as they do. And if other things were equal, that would be the better theory; explanatory success in this sense could give one linguistic theory an edge over another.’ (2001, 376)

Thus, it is important to develop precise analyses of peripheral constructions in various languages and to consider what various theoretical frameworks can say about them.

### 3. Data and basic conclusions

Like the English construction, the Polish CC construction apparently contains two clausal constituents, each with a fronted constituent of a special kind. Thus, where English has examples of the form in (8), Polish has examples of the form in (9).

(8) [[*the* ...] ...] [[*the* ...] ...]

(9) [[*im* ...] ...] [[*tym* ...] ...]

There are other possibilities, especially in Polish, as we will see. The two characteristic elements *im* and *tym* are invariant. *Im* looks like a third person plural dative pronoun, as in (10), while *tym* looks like a masculine instrumental determiner, as in (11), or a neuter instrumental pronoun, as in (12).

(10) Mama zrobiła im pyszne naleśniki.  
mother made them.DAT yummy pancakes  
'Mummy made yummy pancakes for me.'

(11) Cieszę się tym prezentem.  
I-enjoy REFL this.MASC.INS present  
'I'm pleased with this present.'

(12) Jan pracuje nad tym od miesiąca.  
Jan works over this.NEUT.INS from month  
'Jan's been working on this for a month.'

It seems clear, however, that we have quite different elements in the CC construction. I will look first at the internal structure of the two components of the construction, and then I will consider the relation between the two components.

Perhaps the most important question to ask about the internal structure of the two components is whether the initial constituent is the result of movement of some kind or some analogue in a non-transformational framework. Culicover and Jackendoff assume that the English construction involves movement, and there is fairly clear evidence for some form of movement in Polish.

First, the case of elements associated with *im* and *tym* depends on their role in the following clause. The following illustrate a range of cases:

(13) Im ciekawsze programy są w telewizji, tym mniej chce  
IM more-interesting programmes.NOM are in television, TYM less want  
mi się wieczorami chodzić do pubu.  
me.DAT REFL evenings go to pub  
'The more interesting programmes that are on TV, the less inclined I am go out  
to the pub in the evening.'

(14) Im więcej ocalałych zakładników relacji słucham, tym bardziej  
IM more surviving hostages.GEN reports I-listen, TYM more

nic z tego nie rozumiem.  
nothing from it not I-understand

‘The more surviving hostages’ stories I hear, the more confused I am.’

- (15) Im ciekawszym programom poświęcam swą uwagę, tym mniej  
IM more-interesting programmes.DAT I-devote my attention, TYM less  
chce mi się wieczorami chodzić do pubu.

want me.DAT REFL evenings go to pub

‘The more interesting programmes I devote my attention to, the less inclined I am to go out to the pub.’

- (16) Im ciekawsze programy oglądam w telewizji, tym mniej  
IM more-interesting programmes.ACC I-watch in television, TYM less  
chce mi się wieczorami chodzić do pubu.

want me.DAT REFL evenings go to pub

‘The more interesting programmes I watch on TV, the less inclined I am go out to the pub in the evening.’

This is exactly what we expect if initial constituents are the result of movement.

Second, it is possible for *im* and *tym* to be preceded by a pied piped preposition. The following naturally occurring examples from a corpus of Polish (available at <http://www.ipipan.waw.pl/~corpus/searchpage.html>) illustrate:

- (17) Z im dawniejszych epok pochodzi probka badana. ta metoda  
from IM earlier epochs comes sample investigated this.INS method.INS  
tym blad jest większy.

TYM error is greater

‘The earlier the origin of the sample examined by this method the greater is the error.’

- (18) Z im większym dystansem będziemy do niego podchodzić, tym bardziej  
with IM greater distance.INST we-will to him approach TYM more  
Polska będzie traktowana jako kraj, który...

Poland will-be treated as/like country which

‘The greater the reserve we approach him with the more Poland will be treated as a country which...’

Again this is what a movement analysis would lead us to expect. Interestingly, English examples with a pied piped preposition are ungrammatical, as the following from Culicover and Jackendoff (1999: 559) illustrate:

- (19)a. The more people Kim talks to, ...

b. \* To the more people Kim talks, ...

Third, elements which are associated with *im* and *tym* can be separated from them. Thus we have not only (6) but also (20a) and (20b).

- (20)a. Im bardziej jesteś zmęczony, tym gorzej pracujesz.

IM more you-are tired TYM worse you-work

- b. Im jesteś bardziej zmęczony, tym gorzej pracujesz.

IM you-are more tired TYM worse you-work

This is expected on a movement analysis given that the Left Branch Condition does not apply in Polish, as the following *wh*-questions illustrate:

- (21)a. Jak bardzo zmęczony jesteś?  
 how much tired you-are  
 ‘How tired are you?’  
 b. Jak bardzo jesteś zmęczony?  
 how much you-are tired  
 c. ? Jak jesteś bardzo zmęczony?  
 how you-are much tired

(21c) is apparently less good than (20b). It is not clear to me why this should be. It is fairly clear, however, that the Polish construction involves some form of movement or some analogue in a non-transformational framework.

It is important to ask whether this movement is clause-bound or non-local. Examples like the following are relevant here:

- (22) Im więcej chcę, żebyś robił, tym więcej ty chcesz, żebym  
 IM more I-want COMP-2SG do TYM more you want COMP-1SG  
 robił.  
 do  
 ‘The more I want you to do, the more you want me to do.’  
 (23) Im studenci są bardziej inteligentni, tym lepsze spodziewam się,  
 IM students are more intelligent TYM better I-expect REFL  
 że będą oceny.  
 that will-be marks  
 ‘The more intelligent the students are, the better I expect that the marks will be.’

In both cases the initial element and the gap are separated by a clause boundary. It is clear, then, that the movement is of a non-local kind.

A further important point to note is that while the fronting of *im* is obligatory the fronting of *tym* is optional. Thus, we have the following contrast:

- (24) \* Jesteś im bardziej zmęczony, tym gorzej pracujesz.  
 You-are IM more tired TYM worse you-work  
 (25) Im bardziej jesteś zmęczony, pracujesz tym gorzej.  
 IM more you-are tired you-work TYM worse

We can turn now to the relation between the two components. One point to note is that they can appear in either order. Thus, in addition to (6), we have both of the following:

- (26)a. Tym gorzej pracujesz, im bardziej jesteś zmęczony.  
 TYM worse you-work IM more you-are tired  
 b. Pracujesz tym gorzej, im bardziej jesteś zmęczony.  
 you-work TYM worse IM more you-are tired

This is not possible in English. Thus, (27) has a quite different meaning from (1).

(27) The more I understand, the more I read.

This is hardly surprising given that English has *the* in both clauses. However, English has examples like the following:

(28) I understand more, the more I read.

This is rather like (26b).

A second, very important point is that there is evidence that the *tym*-clause is the head of the construction. Some of the evidence comes from examples where the construction is embedded. Consider first (29).

(29) Myślę, że im bardziej jesteś zmęczony, tym gorzej pracujesz.  
I-think that IM more you-are tired TYM worse you-work  
'I think that the more you are tired, the worse you work.'

Here the construction appears as the complement of a verb which selects a finite clause, and it takes the same form as when it is a main clause. Consider now (30).

(30) Spodziewam się pracować tym gorzej, im bardziej jestem zmęczony.  
I-expect REFL work TYM worse IM more I-am tired  
'I expect to work worse the more tired I am.'

Here the construction appears as the complement of a verb which selects a non-finite clause. The *im*-clause remains finite, but the *tym*-clause is non-finite. Consider next (31).

(31) Namówiłem go do ćwiczenia tym więcej, im bardziej go zniechęcają.  
I-persuaded him to practicing TYM more IM more him they-discourage  
'I persuaded him to practice more, the more they discourage him.'

Here it appears as the complement of a verb which takes a gerundive clause, and while the *im*-clause remains finite, the *tym*-clause is gerundive. Further evidence that the *tym*-clause is the head comes from imperatives, e.g. the following:

(32) Pracuj tym wytrwalej, im bardziej narzekają.  
work TYM persistently IM more they-complain  
'Work, harder the more they complain.'

Here, the *im*-clause is unaffected, but the *tym*-clause contains an imperative verb. Thus, we have quite strong evidence that the *tym*-clause is the head of the construction.

To summarize, the Polish CC construction involves two clauses, one containing *im* and a comparative element, and the other containing *tym* and a comparative element. Fronting is obligatory in the former, but optional in the latter. The two clauses can appear in either order, and the *tym*-clause is the head of the construction.

#### 4. Minimalism

I want now to consider how the Polish CC construction might be accommodated within the minimalist framework. I will argue that there are serious problems here.

A satisfactory analysis of the construction must be able to ensure that the two components of the construction have the correct form. A problem arises with the constituent that is obligatorily fronted in the *im*-clause and the constituent which is optionally fronted in the *tym*-clause. These constituents must have some feature distinguishing them from other constituents. It may be that *im* and *tym* are sometimes heads of these constituents, but it is clear that this is not always the case. It is clear, for example, that *im* is not a head of the fronted constituent in (14) given that it is inside a genitive modifier. This would not matter if constituents could share features with a non-head. However, Chomsky (1995: 244) proposes that the label of a phrase is identical to that of its head daughter. It follows that a phrase will not share features with a non-head. It seems, then, that minimalism has no way to distinguish constituents containing *im* and *tym* from other constituents. Note that essentially the same problem arises with *wh*-questions, where the *wh*-word need not be a head.

A satisfactory analysis must also be able to provide an appropriate structure for the whole construction. For minimalism, all (core) structures consist of specifier, head and complement. One might then propose that the *im*-clause in an example like (6) is the specifier of some empty head and the *tym*-clause a complement. This would give the following schematic structure:

(33) [[*im* bardziej zmęczony jesteś] [e [*tym* gorzej pracujesz]]]

Alternatively, one might propose that the *tym*-clause is a specifier of an empty category heading the complement, as in (35).

(34) [[*im* bardziej zmęczony jesteś] [e [[*tym* gorzej pracujesz] e ...]]]

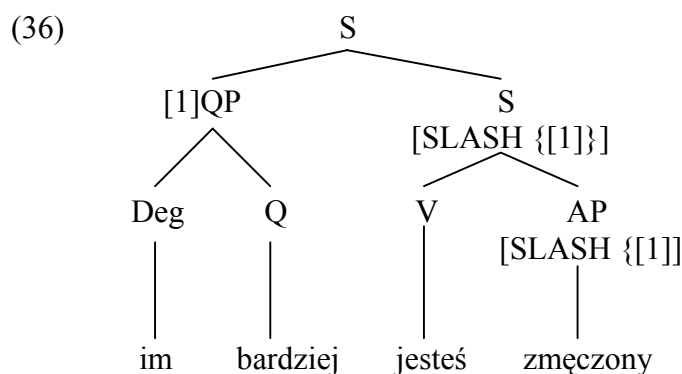
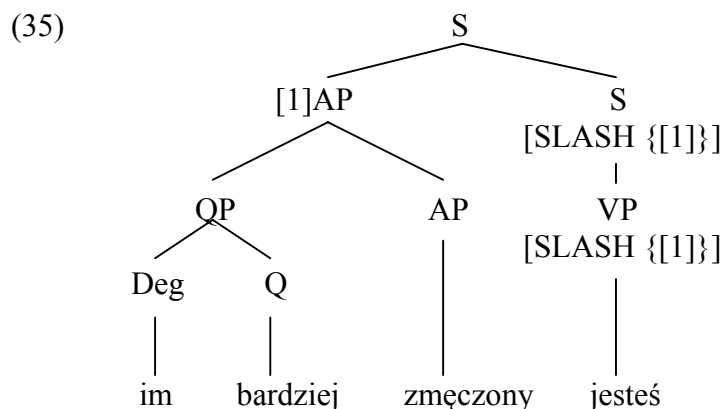
One might propose here that the *im*-clause originates within the complement. Whatever the exact structure proposed, the properties of the construction will have to be attributed to one or more empty heads. We must somehow ensure that the *tym*-clause behaves like a head. It follows that some head must share a variety of features with the *tym*-clause. Minimalism seems to have no way to ensure this. Notice that the AGREE mechanism of Chomsky (2001) is not a relevant mechanism. This applies where a head has an uninterpretable feature of some kind and some c-commanded element has the corresponding interpretable feature and its effect is to remove the former. Thus it does not lead to any real feature sharing.

A response to these problems might be to suggest that the CC construction falls outside the scope of syntax proper and hence need not be accommodated within the mechanisms of minimalism. If the only argument for this position is that it is difficult to accommodate the construction within the mechanisms of minimalism, this is not a very persuasive position. I conclude that minimalism has a problem here.

## 5. An HPSG analysis

I will now show that it is not too difficult to provide an HPSG analysis of the Polish construction. Two features of this framework will be crucial: (a) the recognition of different types of feature behaving in different ways, and (b) the assumption, developed in detail in Ginzburg and Sag (2000), that grammars include hierarchies of phrase types, each subject to one or more constraints.

Within HPSG, the first component of (6) and (20a) will have the schematic structures in (35) and (36), respectively.



These structures assume the standard SLASH-based approach to dependencies resulting from A'-movement in transformational analyses, and use numerical tags to indicate that some element occupies more than one position in the analysis. As we have seen, the fronted constituents must be identified by some feature specification. I will assume that the lexical items *im* and *tym* and constituents that are required to contain them are marked [CORREL *im*] and [CORREL *tym*], respectively. I will assume that other constituents are [CORREL *none*]. To implement this idea we simply need to assume that CORREL is a NONLOCAL feature, which normally appears on a phrase when it appears on a non-head daughter. (See Pollard and Sag 1994, 162-69, Ginzburg and Sag 2000, 5.2.2 for somewhat different implementations.) Evidence that it is a NONLOCAL feature comes from the following contrast:

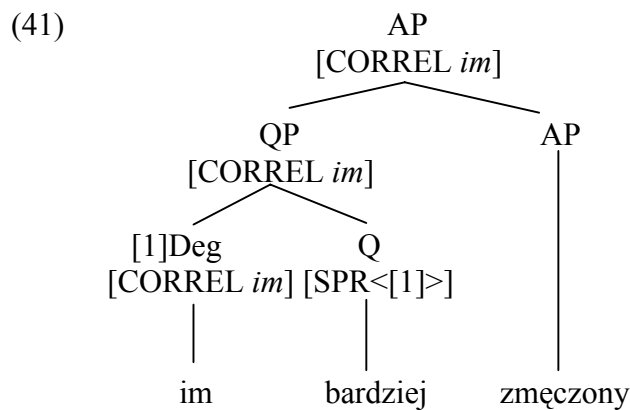
(37) Im bardziej inteligentni i im bardziej pracowici są studenci, ...

- IM more intelligent and IM more hard-working are students  
 ‘The more intelligent and the more hard working the students are, ...’  
 (38) \* Im bardziej inteligentni i bardzo pracowici są studenci, ...  
 IM more intelligent and very hard-working are students  
 \* ‘The more intelligent and very hard working the students are, ...’

Here we see that if one conjunct contains *im*, the other must too. It is a characteristic of NONLOCAL features that if they appear on a conjunct they must appear on all other conjuncts. For HPSG, the contrast between (39) and (40) follows from the fact that the NONLOCAL feature SLASH must have the same value on all conjuncts.

- (39) Who do you think [Kim likes \_\_\_ and Lee hates \_\_\_]  
 (40) \* Who do you think [Kim likes \_\_\_ and Lee hates Sandy]

Given the CORREL feature, we can ensure that the initial constituents contain *im* and *tym*. How can we ensure that they also contain a comparative word of some kind? We can do this by assuming that *im* and *tym* only appear as a specifier of a comparative word. Given these assumptions, the *im*-phrase in (6) will have the following structure:



To allow such phrases, we will need lexical entries like those in (42) for *im* and *tym*, and lexical entries like that in (43) for a comparative word which combines with *im* or *tym*.

- (42)
- |                              |
|------------------------------|
| PHON <i>im</i>               |
| HEAD <i>deg</i>              |
| NONLOCAL [CORREL <i>im</i> ] |
- |                               |
|-------------------------------|
| PHON <i>tym</i>               |
| HEAD <i>deg</i>               |
| NONLOCAL [CORREL <i>tym</i> ] |

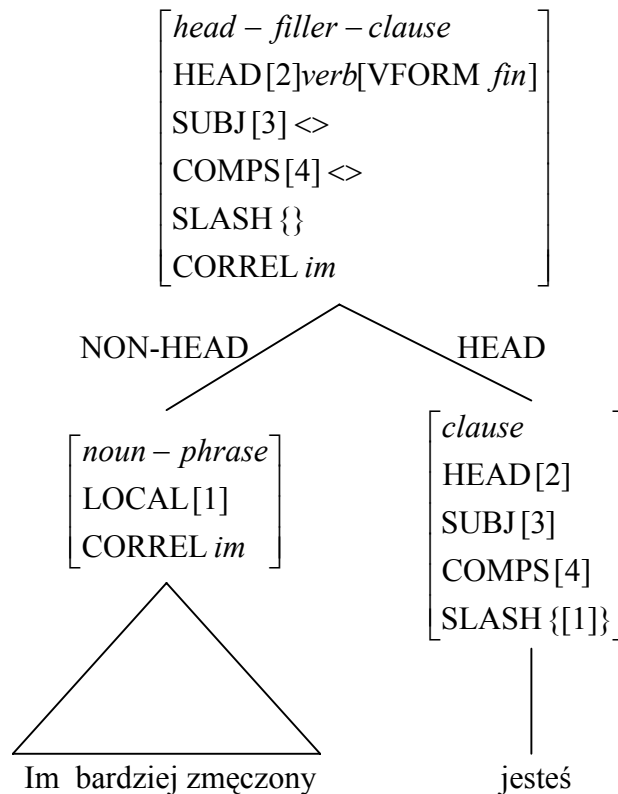
- (43)

$$\left[ \begin{array}{l} \textit{correlative - comparative} \\ \text{HEAD}[\text{AFORM } \textit{comparative}] \\ \text{SPR} < [\text{NONLOCAL } [\text{CORREL } \textit{correl}]] > \end{array} \right]$$

I assume that *correl* in (43) is a supertype of *im* and *tym*. Thus, a correlative comparative word takes either *im* or *tym* as a specifier. An ordinary comparative word will have a rather different lexical entry, not allowing a specifier but allowing a constituent expressing the standard of comparison.<sup>2</sup> One point to note about the analysis is that analyzing *im* and *tym* as specifiers means that what is fronted in Polish is always a dependent and not sometimes a dependent and sometimes a head.

Moving on to a rather bigger structure, we can propose the following for the *im*-clause in (6):

(44)



This is a complex structure, but its properties can be attributed to a small number of constraints. The various similarities between the head and the mother follow from the Generalized Head Feature Principle of Ginzburg and Sag (2000), which can be formulated as follows:

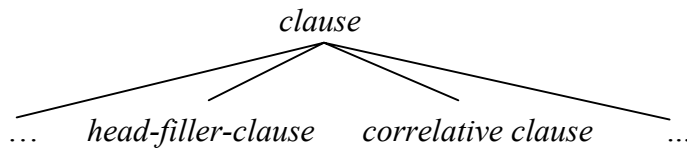
(45)

$$\textit{hd-ph} \rightarrow \left[ \begin{array}{l} \text{SYNSEM } /[\text{1}] \\ \text{HD - DTR } [\text{SYNSEM } /[\text{1}]] \end{array} \right]$$

This is a default statement, as indicated by the slash notation. It requires a headed phrase and its head-daughter to have the same syntactic and semantic properties

unless some other constraint requires a difference. The differences in (44) are a consequence of a number of constraints on clauses. We can assume the following (very partial) classification of clauses:

(46)



All clauses will be subject to the constraint in (47), where *verb*, as in Ginzburg and Sag (2000), is a type which includes both verbs in the normal sense and gerunds, which have both verbal and nominal properties.

(47)

$$\textit{clause} \rightarrow \left[ \begin{array}{l} \text{HEAD } \textit{verb} \\ \text{SUBJ } \textit{list}(\textit{noncan} - \textit{ss}) \\ \text{COMPS } \langle \rangle \end{array} \right]$$

This ensures that a clause is a verbal constituent which is either ‘saturated’, i.e. contains a full set of dependents, or takes an unexpressed subject. It accounts for some basic properties of (44). Head-filler clauses will be subject to the constraint in (48).

(48)

$$\textit{head-filler-cl} \rightarrow \left[ \begin{array}{l} \text{SLASH } \{ \} \\ \text{DTRS } \langle [\text{LOC } [1]], [2] \left[ \begin{array}{l} \textit{phrase} \\ \text{SLASH } \{ [1] \} \end{array} \right] \rangle \\ \text{HD - DTR } [2] \end{array} \right]$$

This ensures that a head-filler clause is SLASH {}, and has a head daughter which is a phrase and a non-head daughter whose LOCAL value is the local feature structure within the value of SLASH on the head daughter. It accounts for some of the main properties of (44). Assuming that the filler in a head-filler clause precedes the head, the *im*-phrase will appear in initial position in (44). We need one further constraint, which can be formulated as follows:

(49)

$$\left[ \begin{array}{l} \textit{clause} \\ \text{CORREL } \textit{im} \end{array} \right] \rightarrow \left[ \begin{array}{l} \textit{head-filler-cl} \\ \text{DTRS } \langle [\text{CORREL } \textit{im}], [] \rangle \end{array} \right]$$

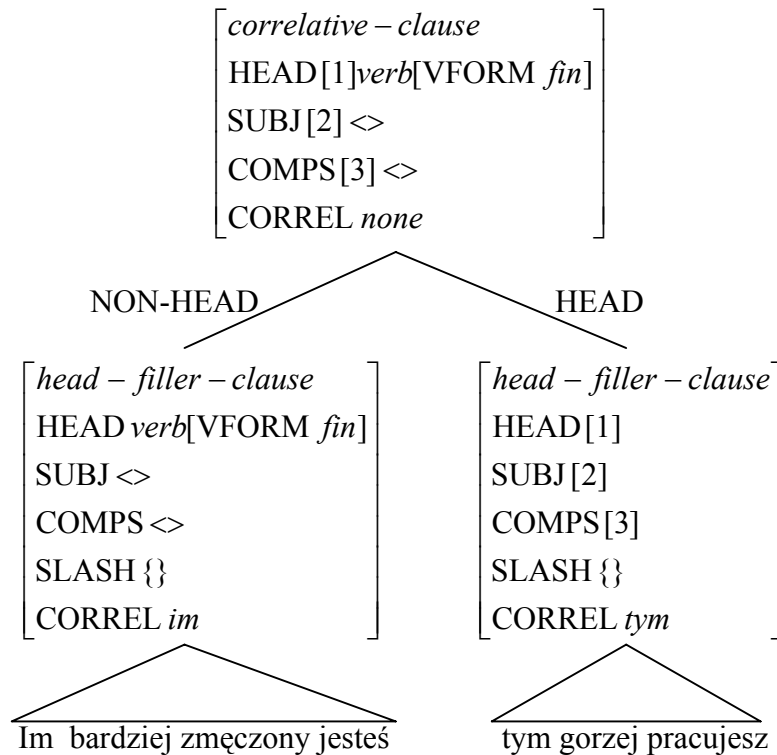
This ensures that a clause which is [CORREL *im*] is a head-filler clause and that it has a non-head daughter which is [CORREL *im*]. There will be no similar constraint on *tym*-clauses. Hence, they may be head-filler-clauses, but they need not be.

Thus, most but not all of its properties of (44) are shared with other sorts of structure. It has some properties because it is a headed phrase, some because it is a clause, some

because it is a head-filler-clause, and some because it is a clause which is [CORREL *im*]. It seems, then, it is quite easy to provide an account of *im*-clauses.

We can now consider the construction as a whole. For (6) we can propose the following structure:

(50)



Again the various similarities between the head and the mother are a consequence of the Generalized Head Feature Principle, and again various properties are a consequence of (47). The main properties of (50) are a consequence of the following constraint.

(51)

$$\textit{correl-clause} \rightarrow \left[ \begin{array}{l}
 \text{DTRS} \langle \left[ \begin{array}{l}
 \textit{clause} \\
 \text{HEAD}[\text{VFORM } \textit{fin}] \\
 \text{CORREL } \textit{im}
 \end{array} \right], [1] \left[ \begin{array}{l}
 \textit{clause} \\
 \text{CORREL } \textit{tym}
 \end{array} \right] \rangle \\
 \text{HD - DTR } [1]
 \end{array} \right]$$

This ensures that a correlative clause has a non-head daughter which is a finite clause and [CORREL *im*] and a head daughter which is a clause and [CORREL *tym*]. The head daughter is not required to be finite, and there is no constraint like (48) requiring it to be a head-filler clause. Thus, the head daughter can be many different kinds of clause, which we have seen is necessary. However, the [CORREL *tym*] specification will ensure that *tym* and hence a comparative word appears somewhere within this clause. Assuming that there is no relevant linear precedence rule, the two clauses will be able to appear in either order. I assume that some more general constraint will ensure that the mother in (50) is [CORREL *none*], so I have not included this in (51).

(51) is a quite complex constraint. It is natural, then, to ask if it could be simplified. This might be possible. In English there are important similarities between the CC construction and the conditional construction<sup>3</sup> and this may also be true in Polish, where the following is a typical example of the conditional construction.

(52) Jeżeli jesteś bardziej zmęczony, (to) gorzej pracujesz  
if you-are more tired it worse you-work  
'If you are more tired, then you work worse.'

Both constructions contain two clauses, one a head and the other a non-head, and in both, the two clauses have some distinctive marking. It looks, then, as if the CC construction and the conditional may be subtypes of a more general type, from which they derive many of their properties. If so, it will certainly be possible to simplify (51).

Whether or not the last speculation is sound, it is clearly not difficult to provide an HPSG analysis of the Polish CC construction. In particular, it is not difficult to capture both the distinctive properties of the construction and the properties it shares with other constructions.

## 6. Conclusions

Accepting Culicover and Jackendoff's (1999) view that more cross-linguistic work is necessary on peripheral constructions. I have been concerned in this paper with the Polish comparative correlative construction. I have also accepted Fodor's (2002) argument that it is important to develop precise analyses of peripheral constructions and to consider what various theoretical frameworks can say about them. I have identified the main properties of the construction and explored the possibility of developing a formal analysis. I have argued that the Minimalist framework is ill equipped to handle the data. In contrast, HPSG and especially the version of HPSG developed in Ginzburg and Sag (2000) can provide a straightforward account of the facts. It seems, then, that HPSG is considerably more satisfactory than Minimalism in this area.

## NOTES

1. I am grateful to Adam Przepiórkowski for valuable discussion at various times of the issues considered and for comments on a raft of the paper. He also helped with the data, as did Ewa Jaworska. Any bad bits are my responsibility.
2. See Bondaruk (1998) for detailed discussion of 'ordinary' comparatives.
3. See McCawley (1988) and Culicover and Jackendoff (1999) for discussion.

## REFERENCES

- Bondaruk, A. (1998), *Comparison in English and Polish Adjectives: A Syntactic Study*, PASE Studies and Monographs Vol 6.
- Beck, S. (1997), 'On the semantics of comparative conditionals', *Linguistics and Philosophy* 20, 229-271.
- Chomsky, N.A. (1995), *The Minimalist Program*, Cambridge, Mass: MIT Press.

- Chomsky, N.A. (2001), 'Derivation by phase', in M. Kenstowicz (ed.), *Ken Hale: A Life in Language*, Cambridge, Mass: MIT Press, 1-52.
- Culicover, P. W. (1999), *Syntactic Nuts: Hard Cases, Syntactic Theory and Language Acquisition*, Oxford : Oxford University Press.
- Culicover, P. W. and R. S. Jackendoff (1999), 'The view from the periphery: The English comparative correlative', *Linguistic Inquiry* 30: 543-571.
- Fodor, J. D. (2001), 'Parameters and the periphery: reflections on *Syntactic Nuts*', *Journal of Linguistics* 37, 367-392.
- Ginzburg, J. and I. A. Sag (2000), *Interrogative Investigations: The Form, Meaning and Use of English Interrogatives*, Stanford: CSLI Publications.
- McCawley, J. D. (1988), 'The comparative conditional construction in English, German and Chinese', *Proceedings of the Fourteenth Annual Meeting of the Berkeley Linguistics Society*, 176-187.
- Pollard, C. and I. A. Sag (1994), *Head-driven Phrase Structure Grammar*, Chicago: University of Chicago Press.
- Ross, J. R. (1967), *Constraints on Variables in Syntax*, Ph.D. dissertation, MIT.

Author's address:

Department of Language and Linguistics

University of Essex

Wivenhoe Park

Colchester CO4 3SQ

UK

E-mail: [rborsley@essex.ac.uk](mailto:rborsley@essex.ac.uk)