Notes on Small Clause Predication*
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1. Introduction

Small clause predication can be said to be fundamental and essential in that it is seen in the emergence of early patterned speech used by young children: “Bow-wow asleep,” “Wayne naughty,” “Car away,” “Hat on.” (Radford (1988:18)). The subject-predicate predication does not have inflected verb or tense, but has been assumed to have a clause-like structure in English grammar (e.g. “nexus” in Jespersen (1924)). Since its first appearance in Williams (1975), the term “small clause” has been applied to a variety of constructions, including double object constructions, adjunct constituents, existential sentences, complements of circumstantial with, and perceptual expressions. But the main examples of small clauses are complements of consider-type verbs and those of raising verbs, including the copula be.

(1) a. I consider [John honest].
   b. I consider [John my best friend].

(2) a. Mary seems [t happy].
   b. John is [t a good teacher].

There have been many analyses of small clauses. The simple analysis of the internal structure of small clauses is to treat them as exocentric constructions which immediately connect two maximal projections, with the node SC (for small clauses, Moro (1995, 1997, 2000)):

(3) \[ \text{SC NP XP} \] \[ \text{SC analysis} \]

To fit this representation into X'-theory, two types of analysis are proposed: the first of them is to analyze small clauses as projected phrases of the predicate category (Stowell (1983)).

(4) \[ [\text{XP NP [XP [X X ]]}] \] \[ \text{XP analysis} \]

The other type of analysis is an attempt to represent small clauses as projections of a particular null functional head as in the following:

(5) \[ [\text{FP NP [FXP ]} ] \] \[ \text{FP analysis} \]

The FP which has been proposed is AgrP (Suzuki (1991) and Nakajima (1991)), IP (Aarts (1992)), PredP (Bowers (1993)), or CP (Starke (1995)) among others, but we do not deal with the issue of which analysis should be the most appropriate. Furthermore, some authors, Aarts (1992) and Bowers (1993) among others, try to extend this small clause structure to as-constructions as in the following:

(6) a. I consider [John as a teacher/honest].
   b. I regard [John as a teacher/honest].
Aarts (1992:115) considers as to be an inflectional head I in his FP analysis. Bowers (1993:597), on the other hand, proposes another FP analysis that as is a direct lexical realization of Pr (for predication, a functional category). Furthermore, Moro (1995:119) tries to consider the possibility that as takes a small clause as a complement, like a copula.

In this context, the following questions arise: (i) If small clauses in (1) are related with copular sentences (e.g. their inflected counterparts) in (2), what is the relation between small clauses and copular sentences? (ii) What makes the small clause predication possible? Is it an Infl or some other functional head? Then, what is the function of copular be? Is it the same as that of prepositional as? This paper presents a few preliminary notes to answer these questions.

The paper is organized as follows. In section 2 we will first consider the predicate raising analysis by Moro (1995, 1997), indicating that it presents a new problem to how to handle the small clause predication. Section 3 is the discussion of pseudoclefts and copular sentences. We suggest that inversion analysis as in Williams (1983) and Moro (1995, 1997) faces some difficult cases to handle. We will see in section 3 and 4 that identity as well as specificational interpretation is impossible in the small clause complements of consider and regard, while predicational interpretation is feasible and felicitous. Section 5 is a short conclusion.

2. BE

Recent work by Moro (1995, 1997) has followed Stowell (1978) and proposed that all copular sentences can be analyzed with a copula that takes a small clause complement, one part of which should raise over the copula to the subject position of the clause, and that the copula be itself has a non-thematic nature. Thus, a copular sentence in general has a raising structure, as in (7).

\[(7) \ e \ is \ [sc \ [John] \ [the \ culprit] \ ]\]

From this base structure the following two word orders are derived:

\[(8) \ a. \ John \ is \ the \ culprit. \ (canonical) \]
\[b. \ The \ culprit \ is \ John. \ (inverse) \]

However, as Moro points out, the order in (8b) does not occur in small clause complements of consider-type verbs:

\[(9) \ a. \ I \ consider \ John \ the \ culprit. \]
\[b.* I \ consider \ the \ culprit \ John. \]

Also we have the same acceptability pattern as (9) in the following as-constructions (Moro (1995:119)):

\[(10) \ a. \ I \ consider \ John \ as \ the \ culprit. \]
b.* I consider the culprit as John.

Also to be added is the same acceptability pattern in the complements of *regard*-type verbs which typically take *as*-constructions:

(11) a. I regard John as the culprit.
   b.* I regard the culprit as John.

Here (9a) and (10a) can be considered totally synonymous in that the same predicative relation holds between the two NPs in each sentence, with an additional element in (10a), i.e. *as*. What is the function of *as*? Is it a predicative marker or a direct realization of predication, as Bowers (1993) proposes? In view of this line of thinking, we would have the following structure, where \(I^0\) is a kind of "predicative head" which is null in the case of a prototypical small clause.

(12) I consider \([\text{p.p.} \text{John} \ [\text{p.} \text{as}] \text{the culprit}].\)

On the other hand, as far as the raising analysis is tenable and we can relate the copular *be* with *as*, we would have the following structures for (10):

(13) a. I consider [John as \([t \text{ the culprit}].\)]
   b.* I consider [the culprit as \([\text{John }t].\)]

However, observe the following contrast:

(14) a. I consider [John to be \([t \text{ the culprit}].\)]
   b. I consider the culprit to be \([\text{John }t].\)

Here in (14b) inverse word order is "rescued" by the "real" copula, but this order was impossible in the small clause complement as seen in (9b). From this we have to acknowledge that *as* cannot be equivalent to a copula, as Bowers (1993) suggests. How should this difference between (9b) and (14b) be handled? Moro (1995, 1997) notes that this asymmetry follows from fixing the base word order, identifying the *culprit* as the predicate and *John* as its subject, and proposes that the subject must precede the predicate in the underlying structure of English.\(^5\) In the structure of a canonical sentence like (8a) the subject straightforwardly raises to the specifier of IP, leaving the attributive NP in the copular small clause. In (8b), an inverse construction, the predicate NP raises to that position, the subject NP remaining in the small clause. However, in the case of small clause complements of *consider*-type verbs, there is no inflectional element in small clauses, and there is no place for the predicate to raise to. This is Moro's account of why the inverse order in (9b) is disallowed. On the other hand, in the structure of (14), the copula *be* makes the specifier of IP available for the subject in (14a) and also the predicate in (14b) to raise to in the small clause complements, as in (8).\(^6\)

However, if we extend this analysis to (13), the proposed underlying structure for (10), and assume that *as*, like the copula *be*, introduces IP, we cannot explain
why (13b) is unacceptable since (14b) is well-formed. At this point note that as and be can co-occur in small clause complements, a fact that surprisingly has evaded the attention of many authors.7

(15) a. I consider John as being the culprit.
   b. I consider the culprit as being John.

(16) a. I regard John as being the culprit.
   b. I regard the culprit as being John.

As in (14), inverse word order is rescued in (b) sentences in (15) and (16) by the insertion of being. It can be said from the well-formedness of these sentences that it is the presence of being, not as, that rescues the unacceptability of the inverse order. And then inevitably this leads to the question why (9b), (10b), and (11b) are unacceptable while (8b) and (14b) are well-formed.

Moro's analysis is actually an attempt to relate the predication in copular sentences with the predication in small clause complements, thus avoiding the problematic ambiguity of be. It treats the copula as structurally and semantically single: copular sentences are always predicational and therefore they can be "embedded" into small clauses as in (14). As we have seen, inverted predicates are not acceptable in be-less small clause complements of consider type verbs.8 In contrast, they are acceptable with the help of be in copular sentences.

Assuming that the canonical and inverse constructions have different underlying structures amounts to saying that there are two different be's. As is discussed in Safir (1985:121) with regard to there constructions, a possibility is that the be in the canonical order is a raising verb while the be in the inverse order is a transitive verb.9 Safir calls the former PBE (predicational BE), which does not assign Case and takes a small clause complement, and the latter IBE (identificational BE), which assigns Case and takes only an NP complement. If we were to assume this ambiguous be analysis, it might be said that the small clause predication in (9b) and (10b) is identificational and hence the first NP in small clauses must be assigned Case, but there is no be verb which can assign Case to the second NP in those small clause complements, and therefore they are unacceptable, a desired result. On the other hand, we have an IBE in (8b) which can assign Case and hence it is well-formed. However, what about (9a) and (10b)? Are their small clause complements identificational? If so, the ambiguous be analysis will incorrectly rule them out since the second NP should be assigned Case by be, which is not available here. Or, if they are predicational, there is no Case which should be assigned to the second NP in their small clause complements, and hence they are well-formed. But how can we distinguish PBE and IBE precisely? Let us consider this problem below.
3. Pseudoclefts

If we follow the single be analysis like Moro's, some or all copular sentences are reduced to the predicative type since the underlying word order in small clauses is fixed as predicational “subject=predicate,” and therefore the inverse order as in (8b) would also be analyzed as predicational. This analysis, however, is problematic since we cannot have well-formed predicational relation in the following inverted copular sentences.

(17) a. *A doctor is John.  
b. *Honest is John.

But the following sentences are well-formed.

(18) a. A doctor is what John's mother wants him to be.  
b. Honest is what John is.

These sentences are pseudoclefts which have the other well-formed order around be:

(19) a. What John's mother wants him to be is a doctor:  
b. What John is is honest.

Higgins (1979) points out that whatever analysis is given to pseudoclefts like (19) should also be given to simple copular sentences, since pseudoclefts exhibit the same patterns with regard to many syntactic constraints as the corresponding simple sentences. If this claim is correct, pseudoclefts will give an insight into considering the small clause predication. Higgins first distinguished two kinds of pseudoclefts, which he called predicational and specification. He also posits a be of predication for predicational pseudoclefts and a be of identity for specification pseudoclefts. Williams (1983), like Moro, on the other hand, offers an alternative account with a single be with some type-shifting, using the possibility of inversion around be. He represents the functions of predication and specification as in the following unambiguous sentences:

(20) a. What John is is important to him. (predicational)  
b. What John is is important to himself. (specification)

One way to distinguish the two functions is to paraphrase them. The predicational pseudocleft has a paraphrase in which the free relative wh-phrase has an ordinary referential meaning and the post-copular constituent predicates something of that referent. The specification pseudocleft can be paraphrased by its simple sentence counterpart and hence is said to have “connectivity” in it. Williams (1983:428) offered Subject Aux Inversion (SAI) and Raising as other criteria to distinguish them. Only in predicational pseudoclefts can the wh-phrase undergo SAI and Raising.

(21) a. Is what John is important to him?  
b. *Is what John is important to himself?

(22) a. What John is seems to be important to him.
b. * What John is seems to be important to himself.

Williams (1983:428-9) further notes that only predicational pseudoclefts are possible in the small clause complements of consider-type verbs.

(23) a. I consider what John is important to him.
   b. * I consider what John is important to himself.

In fact, it is pointed out that the following specificational pseudoclefts do not appear in small clause complements (Heycock and Kroch (1998:73)).

(24) a. * I consider what John is honest.
   b. * With what John is honest, we leave nothing to fear.\footnote{12}

However, Williams illustrates that the paradigm in (21) to (23) is reversed when the wh-phrase and the focus are inverted.

(25) a. * Is important to him what John is?
   b. Is important to himself what John is?

(26) a. * Important to him seems to be what John is.
   b. Important to himself seems to be what John is.

(27) a. * I consider important to him what John is.
   b. I consider important to himself what John is.

Williams (1983:427) proposes that it is possible to analyze the specificational pseudoclefts as a case of predication and that specificational pseudoclefts are inverted predicational sentences like Happy is the man who sleeps. Therefore the base order of the specificational pseudoclefts is that in (28b):

(28) a. [What S]SUBJECT IS XP\text{PRED}
   b. XP\text{SUBJECT IS [What S]PRED}

And (28a) is the base order of predicational pseudoclefts. If this observation is correct, (20b) is derived from (29):

(29) Important to himself is what John is.

Thus, his explanation for the above paradigm in (21) through (27) is that only SUBJECT in the base order of the two pseudocleft functions can be subject to SAI and Raising, and can be the first constituent of be-less small clause complements. Likewise, Moro (1997:92) proposes the following representations:

(30) a. [what I don't like about mathematics], is [ t₄ [obvious]]
   b. [what I don't like about mathematics], is [ [prime numbers] t₄ ]

Although he does not mention the difference between these sentences, it is clear that (30a) is a predicational pseudocleft and (30b) is a specificational pseudocleft in our terms.

However, as Heycock and Kroch (1998:73) have shown, if this analysis is correct, we would expect a pseudocleft which has the base order of (28b) to be
well-formed in the following examples (31) to (33). But that expectation is not borne out.

(31) a. Honest is what John is.
   b. * I consider honest what John is.
   c. * I regard honest as what John is.

(32) a. Read poetry is what he does best.
   b. * I consider read poetry what he does best.
   c. * I consider read poetry as what he does best.

(33) a. At peace is what her mind was.
   b. ?? I consider at peace what her mind was.
   c. ?? I regard at peace as what her mind was.

To the contrary, the following sentences are acceptable.

(34) a. A doctor is what John didn't want to be.
   b. I consider a doctor what John didn't want to be.
   c. I regard a doctor as what John didn't want to be.

(35) a. This book is what you should read next.
   b. I consider this book what you should read next.\(^\text{13}\)
   c. I regard this book as what you should read next.

(36) a. That Mary was guilty was what he should have said.
   b. ?? I consider that Mary was guilty what he should have said.
   c. I regard that Mary was guilty as what he should have said.

If the inversion analysis like Williams (1983) and Moro (1995, 1997) is correct, this contrast is not expected: all the (b) sentences of (31) through (36) should be well-formed.

Why do we have this contrast? It seems to be because (a) sentences in (34-36) are ambiguous in that the free relative clauses, like other definite noun phrases, can be predicational as well as specificational, since their “subject” is a noun phrase in (34) and (35) or a that-clause in (36). On the other hand, (a) sentences in (31) to (33) are not ambiguous: they can be only specificational. The above contrast, therefore, comes from the assumption that only predicational relation is possible in the small clause complements of consider and regard. To see this, let us look at the semantic structures and taxonomy of the form \(XP \rightarrow \text{copula} - XP\) by Higgins (1979:264): he proposes four different types of copular sentences, including pseudoclefts: ‘predicational,’ ‘specificational,’ ‘identity,’ and ‘identificational.’

<table>
<thead>
<tr>
<th>Type</th>
<th>(XP_1)</th>
<th>(XP_2)</th>
</tr>
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<tbody>
<tr>
<td>Predicational</td>
<td>referential</td>
<td>predicational</td>
</tr>
<tr>
<td>Specificational</td>
<td>superscriptional</td>
<td>specificational</td>
</tr>
<tr>
<td>Identity</td>
<td>referential</td>
<td>referential</td>
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Identificational referential identificational

We do not have enough space to discuss each of these features proposed by Higgins, but it is reasonable to assume based on this taxonomy that a noun phrase in (34a) and (35a) or a that-clause in (36a) can be a referential subject, and the free relative clauses are predicational, and that an adjective in (31a), an VP in (32a), or a PP in (33a) cannot be referential. Thus, if the observation is correct that only predicational relation is possible in small clause complements, we have the explanation of the contrast of acceptability in (31) through (36) above. If this analysis is on the right track, it may be possible that even APs in (25) to (27) may be able to get “referential.” While the above discussion has been based on pseudo-cleft sentences, we can also see the same acceptability pattern in the following copular sentences:

(38) a. The prospects are for peace.
   b. This book is for you to read.

(39) a. ??The government considers the prospects for peace.
   b. ??The government regards the prospects as for peace.

(40) a. ??John considers this book for you to read.
   b. ??John regards this book as for you to read.

The copular sentences in (38) are unambiguously interpreted as specificational copular sentences. Then the data in (39) and (40) suggest that specificational interpretation is not available for small clause complements of consider or regard in (38) and (39) since only predicational relation is possible in those complements. And here again, insertion of the copula be rescues the unacceptability.

(41) a. The government considers the prospects to be for peace.
   b. The government regards the prospects as being for peace.

(42) a. John considers this book to be for you to read.
   b. John regards this book as being for you to read.

Here we can regard the function of be as the one to restore the specificational interpretation. However, it seems that specificational interpretation is established not by the copula be, but by the semantic relation between the two elements which form small clause predication. Thus, the observation about pseudoclefs which we have seen in this section shows that predicational, but not specificational, relation is possible in small clause constructions with consider type verbs.

4. Identity

Finally we have to mention the matter of identity (or equation, for some authors). As we have seen in (37), the taxonomy of copular sentences by Higgins indicates that some copular sentences show identity relation between the two referential NPs. These
NPs, except in an unusual intonation or interpretation, cannot appear in the *be-less small clause constructions with consider:

(43) a. I consider the winner *(to be) Mary. (Rothstein (1995))
    b. We consider him *(to be) that man.
    c. Mary considers that man *(to be) John.
    d. I consider my only friend *(to be) Mary.

We have already seen similar examples:

(8b) The culprit is John.

(9b) *I consider the culprit John.

In Moro's (1995, 1997) analysis which we have seen above, an NP predicate is raised to IP subject position, resulting in an inverse copular construction, as in (8b), which is not possible in (9b) since there is no such position in small clause complements. Thus, true identity constructions do not exist in Moro's framework. However, these sentences cannot be predicational since proper names or demonstrative\(^\text{17}\) NPs like *that man* in (43) are usually referential and not predicational, as is shown in Higgins (1979). This is supported by the fact that only referential nouns can precede non-restrictive relative clauses, and if (8b) is truly identical, the two NPs can precede them, respectively. This prediction is borne out.

(44) The culprit, who is as cunning as a fox, is John, who was born in Chicago.

Therefore, we can say that in these copular sentences *be* has the property to identify the referents of the two NPs as being the same individual. On the other hand, definite nouns are ambiguous: they can be predicational as well as referential as in *John is the culprit* (=8a), and hence the acceptability of the following sentences:

(9a) I consider John the culprit.

(45) a. I consider John the man for the job. (Rapoport (1995))
    b. I regard John as the man for the job.

For example, (9a) implies that we know very well who John is, and we do not identify him as the referent of the culprit but predicate of him as being the culprit. In other words, the identificational reading is excluded. This agrees with the assumption that only predicational relation is possible in small clause complements.\(^\text{18}\) If this observation is correct, these data suggest that identity interpretation cannot be possible for the two NPs in the small clause complements of consider.

From the above consideration in this paper we can say that we need the copula *be* which is selected by Infl to show the identity relation as well as the specificalational relation between the two constituents which we have been discussing. Or it might be that predicational relation between them is a default value in *be*-less small clause constructions of consider type verbs. In other words, the *be* is optional in predicational
small clause complements of consider and it is obligatory in specificational and identity small clause complements. Then what is the function of be? Do we have the copula which has the function of identity, or specification,\(^{19}\) as well as the copula which functions as a kind of predicational marker? Then, is it preferable that, like Safir's (1985) analysis above, we should distinguish at least two functions of the copula? As we have seen in the be-less environments with consider and regard, it will follow that the ambiguity of copular sentences resides in the ambiguity of semantic relation of those two constituents in small clauses. A question that now arises is the structural nature of the difference between predicational, identity, and specificational small clauses, which issue we leave for future research since more cross-linguistic investigation\(^ {30}\) appears to be needed to solve that question. But incidentally it might be said that the dichotomy of predicational function on one hand and specificational and identificational function on the other might have caught some linguistic generalization since some languages express these functions differently in form. For example, Hawaiian, a Polynesian language, is one of the languages in which copular verbs do not exist and expresses the two predicative relations differently as follows (Hopkins (1992:15)):

\[(46)\] a. He ka'a keeia.
   a car this

b. 'O ko'u ka'a keeia.
   my car this

This language has a "predicate-subject" order as in (46a) which presents predicational function 'This is a car.' He is an indefinite article. In (46b), on the other hand, 'o is a grammatical marker which should be placed at the top of all equational sentences. This marker should be placed at the top position even in the wh-interrogative sentence as in the following:

\[(47)\] 'O wai kou inoa?
   what your name

Although this status of 'o is not clear, it seems that the presence of this kind of special grammatical marker suggests that identity function is processed as the marked function which can be in contrast to the unmarked status of predicational function. More research is needed on this matter. What we can see here is that the interpretative difference of copular constructions is not located in the presence or ambiguity of the copula.

5. Conclusion

In conclusion, we have discussed the predication relation of small clauses in
English in terms of consider and regard type verbs, and this has led us to argue that only predicational function is possible in the small clause complements of those verbs. The observations about copular and pseudocleft sentences show that specificational and identity functions are excluded in those complements.

NOTES

* I would like to thank Zonia Mitchell for acting as an informant and for suggesting stylistic improvements. All remaining errors are my own.

1 Williams himself, with Emonds (1985) and Napoli (1989), puts forward the predicational analysis which does not treat small clauses as constituents and deals with them by means of coindexing or an interpretative rule of some kind. We do not discuss this analysis here.

2 Aarts (1992:99) tries to treat from phrases as an IP as follows:
   (i) \[ v_p \text{-prevented} [i_p \text{-the} \text{-sailor} [i_p \text{-from}] [v_p \text{-drowning} \text{-the} \text{-cat} ]]\]

3 Starke (1995) proposes that as is PRT (functional preposition) which is base-generated in C.

4 Starke (1995:239) discusses the typological similarity between as and prepositional elements als and für in the following German sentences:
   (i) a. Ich betrachte es als gut.
       b. Ich halte es für gut.
       c. Ich finde es gut.
           ‘I consider it as/for/so good.’

5 In Italian, this doesn’t apply so restrictively. See the following pair (the data are from (Moro 1995:130)):
   (i) a. Maria ritiene Gianni la causa della rivolta.
   Maria believes Gianni the cause of the riot
   b. Maria ritiene la causa della rivolta Gianni.
   Maria believes the cause of the riot Gianni

Moro suggests that there may be spec-positions between the verb and the small clause complement in this language.

6 He also tries to explain the extraction facts from small clauses, which we do not discuss here.

7 Gerundive being can be inserted before the post-as constituent except when it is a verbal gerundive phrase, as in the following sentences:
   (i) a. I regard John as (being) a teacher.
       b. I regard John as (being) honest.
       c. John regards Mary as (being) at ease.
       d. John regards Mary as (*being) owning a house.

However, being cannot be put in the following adjunct as phrases.
   (ii) a. They introduced Mary as (*being) a teacher.
       b. Susan came here as (*being) a secretary.

Also note the following fact:
   (iii) John is (*as) a teacher.
As Moro (1997:44) acknowledges, this analysis has no convincing explanation for the following contrast:

(i) a. John is a fool.
    b. *A fool is John.

As for a possible solution, see Moro (1997:266, note 32).

Also see Bowers (1993:605, n. 9) as for the same possibility.

See note 8.

We can count binding phenomena and the licensing of negative polarity items as showing the connectedness effects, which we do not discuss here.

The following sentence should be acceptable.

(i) With John so smart and brave, we have nothing to fear.

Here with can be seen to take a predicational small clause complement. We will not discuss this type of with-constructions in detail here.

These sentences are based on the examples in Heycock and Kroch (1998:73).

An example of identifi cational sentence by Higgins (1979) is (i):

(i) That is the Mayor of Cambridge.

My informant, however, rejects such an AP in (27b) as unacceptable.

We might be able to regard John is in the garden as a kind of specifi cational sentence.

(i) a. *I consider John in the garden. (Williams 1994:82)
    b. ??I consider John as in the garden.

(ii) a. I consider John to be in the garden.
    b. I consider John as being in the garden.

This is “deictic” in Higgin’s (1979) terms.

But the constraint that small clause predicates cannot be referential is too narrow since according to Rapoport (1995:154) we have the following ungrammatical sentences where small clause predicates are referential and indefinite:

(i) a. *I believe Jones a certain friend of mine.
    b. *I find Smith an excellent linguist who is known for her formalisms.
    c. *I think Smith a particular genius in our department.

Rapoport’s constraint is that non-specific phrases cannot appear in the small clause predicate position, which seems to be correct. It might be possible to say that the specific phrases in (i) cannot be predicational in this be-less environment.

Heycock and Kroch (1999) argues that specifi cational sentences should be treated as equatives. This evokes a very important issue of reducing some functions in (37) into one function.

Some authors investigate the small clause predication in English in terms of cross-linguistic comparison: Italian (Moro (1995, 1997, 2000)), Hebrew (Rothstein (1995)), Hungarian (Rapoport (1995)), among others.
REFERENCES


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