**Semantic support for the nominal nature of clausal complementation**

Friederike Moltmann, CNRS

Harves and Kayne (2015) and Arsenijevic (2009) have argued on syntactic grounds that (certain) modal sentences and (certain) attitude reports contain clausal complement that are in fact relative clauses modifying a noun in an underlying light-verb noun construction, roughly:

(1) a. John needs to leave.

 b. John have-need [to leave ]

(2) a. John claims [that he is French]

 b. John make-claim [DP ~~claim~~ [that [FP ~~claim~~ (+assert)]] [F+assert] [he is French]

Arsenijevic’ analysis treats complement clauses as special relative clauses, involving a nominal version of the verb in the specifier position of the force projection of the clause whose force feature has to match the feature of the head of that projection, thus explaining the obligatoriness of clausal complements.

 I will argue that there is substantial semantic support for an analysis of this kind, based on a fairly simple, but novel semantic interpretation of (1b, 2b). I will give a corresponding syntactic and semantic analysis of quantifiers and pronouns that can take the position of clausal complements, and indicate how the analysis can straightforwardly be extended to wh-clauses and infinitival complements.

 I will endorse a modified analysis of attitude reports given by Arsenijevic, as below:

(2) c. John [N claim] make [DP[NP ei] [that [FP[SPEC ei] [F’ [Fv] [IP he is French]]]]

Importantly, the feature variable v must match the relevant feature of *claim* or whatever noun is in specifier position of FP. v will not be a feature such as [+assert] or [+question], but stands for a variety of functions mapping the content of the IP onto a property of objects (more on that shortly). Crucially, the structure in (2c) will have an interpretation based on *claim* in the lowest position, in which the relevant property of objects can be predicated of it. *Claim* is a noun standing for what I call an illocutionary object (or product), an entity that has satisfaction conditions, yet is a concrete agent-dependent thing. As such it is distinct from both events (states) and abstract propositions. Nouns in complex-predicate constructions generally stand for illocutionary, mental or modal objects, *i-objects* for short: objects that have satisfaction conditions, yet have features of concreteness as well (Moltmann 2003, 2013, 2021). The semantics of (2c) will then be as below:

(2c) ∃e∃d(make(e, John, d) & claim(d) & [that he is French](d))

That is, there is an event e, an i-object d, such that e is a making of d by John, d is a claim and d has the satisfaction conditions given by S.

 The analysis will be extended to quantifiers and pronouns in place of clausal complements (which involve an overt or silent light noun *thing*), as in (3a, b):

(3) a. John claimed something that caused consternation.

 b. John claimed the thing that Mary claimed, that S.

There two important observations about such quantifiers and pronouns.

[1] Restrictions on sharing by different attitudes: reports of content-sharing by two different attitudes are more restricted that a standard proposition-based analysis of attitude reports would have it, requiring the attitudes to be the same except for possibly differences in strength, manner or evaluation (Moltmann 2003, 2013):

(4) a. ??? John claims what Bill promised that there will be a party.

 b. ??? John hopes what Mary assumes, that there will be a party.

[2] Quantifier restrictions may consist in properties of concrete things, not properties of propositions (e.g. *caused consternation*)

 I will propose an analysis on which the i-object noun starts out in the specifier position of the (overt or silent) functional noun *thing*, as the head of the prosentential quantifier/pronoun:

(5) a. John claimed something that caused consternation.

 b. John [claimi-make [ei-thing]].

Not all i-object nouns are permitted to do that. Verbs such *remark* and *complain* do not, which is why they end up not allowing DP complements.

The interpretation of (5a) will be as below:

(6) ∃e ∃d(make(e, John, d) & claim-thing(d) & caused consternation(d))

The underlying structure of (3) will be as in (7) (with the kind-denoting versions of the noun),

(7) John claimkind-make ~~claim~~~~kindi~~- what-thingj Mary claimkind-make ~~claim~~~~kind~~-ej.

The semantic interpretation of that structure forces the i-objects to be of the same kind.

 I will make use of a simplified truthmaker semantics (Fine 2017): the semantic value of a sentence (IP) is a set S of situations, actions, or i-objects that are exact truthmakers of the sentence. Depending on the value of v, such a set S of truthmakers of the sentence (IP) is mapped onto a property of i-objects by one of the following functions:

(8) a. cont(S) = λd[the elements of S are exactly the satisfiers of d] [+cont]

 b. fact(S) = λd[the true elements of S are exactly the satisfiers of d] [+fact]

 c. id(S) = λd[for some element d’ of S, d = d’] [+id]

*Claim* has the feature [+cont], *notice* [+fact], *occur* (as in *It occurred that* S) [+id].

 The three functions allow for an immediate extension of the proposed nominal approach to clausal complements to wh-clauses and infinitival clauses. The only additional assumption is that a wh clause such as *who came* has as its satisfiers locutionary or, more generally, truth-directed objects d whose satisfiers in turn are the truthmakers of *a came* for a relevant entity a. Thus, (9a) involves [+cont], (9b) [+fact], and (9c) [+id]:

(9) a. John asked who came.

 b. John wondered who came.

 c. John told me who came.

Similarly, if infinitives denote sets of actions or states of the relevant agent, then (10a, b) involves [+cont] and [+id] respectively:

(10) a. John requested to run.

 b. John managed to run.

There are two advantages of this proposal of complementation over the Moulton’s (2015) approach on which the complement clause acts as a predicate an argument of the attitude verb. First, the latter fails to account for the difference between full NPs and light *–thing* NPs when replacing that-clauses: full NPs are only possible with a few attitude verbs (*believe, prove, assume*) (*John claimed something strange* vs ??*John claimed a strange thing*). Second, the present proposal straightforwardly carries over to wh-clauses and infinitival clauses.

 The proposal as is does not apply to clausal complements of adjectives and to subject clauses, which may involve only abstract features, not a lexical element, in the force projection.

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