Specificational clauses and semantic types

Higgins (1979) argues that specificational copular clauses like (1) are distinct from both predicational clauses like (2) and equative clauses like (3).

(1) The lead actress in that movie is Ingrid Bergman. [specificational]

(2) Ingrid Bergman is a good actress. [predicational]

(3) Susan is Dr. Robinson. [equative]

Many authors have since argued that this three-way distinction is not real and proposed to assimilate specificational clauses either to predicational ones (Heggie 1988), or to equatives (Heycock and Kroch (1999); Rothstein (2001)). This paper presents new evidence showing that specificational clauses are distinct from both predicational and equative clauses in support of Higgins' original taxonomy. The evidence concerns the semantic types of the two NPs. Following Higgins, I refer to the initial NP as the subject and the final NP as the predicate complement. I argue that the semantic types of the NPs are distinct in the three kinds of clauses, in particular that specificational clauses are unique in having a predicative subject and a referential predicate complement. In a type-driven compositional semantics this has implications for the meaning assigned to the copula. I use pronominalization and VP ellipsis as tests for semantic type.

It is well-known that the semantic type of an NP affects how it pronominalizes (Kuno 1972), in particular that a referential NP is picked up by a gendered pronoun (like English *she*), whereas a predicative NP may be pronominalized by a neuter pronoun (like English *it*). It is also well-established that the form of the pronoun in a tag question is determined by properties of the subject of the tagged clause (Quirk et al. 1985:§11.8). Together these observations give us a way of testing the semantic type of the NP in subject position. As the data (4) show, only specificational clauses allow *it* in the tag, whereas predicational and equative clauses require *she*.

(4)
a. The lead actress in that movie is Ingrid Bergman, isn't it?
b. Ingrid Bergman is a good actress, isn't {she / *it}?
c. Susan is Dr. Robinson, isn't {she / *it}?

Adopting the type theory of noun phrase interpretation proposed in Partee (1986), this indicates that the subject of specificational clause is predicative (type $\langle e,t\rangle$ in Partee's extensional system), whereas the subject of predicational and equative clauses is referential (type $\langle e\rangle$). The results are replicated in Danish, which has tag questions of the sort found in English with the same requirement that the pronoun of the tag be anaphoric to the subject of the tagged clause:

(5)
a. Den højeste spiller på holdet er Minna, er det ikke? [specificational]
   the tallest player on team.DEF is Minna, is it not
b. Den højeste spiller på holdet er svensk, er {hun / *det} ikke? [predicational]
   the tallest player on team.DEF is Swedish, is she / it not
c. Marie er Dr. Andersen, er {hun / *det} ikke? [equative]
   Mary is Dr. Andersen, is she / it not

The contrast between (4a) and (4c), and between (5a) and (5c), is evidence against the equative analysis of specificational clauses proposed by Heycock and Kroch (1999) and Rothstein (2001:chapter 9).

The second test relies on the observation that so-called VP ellipsis (VPE) can target expressions of categories other than VP, including AP, PP, and NP:

(6)
a. I know that Ingrid Bergman is {from Sweden/Swedish/a proud Swede}, and I think Liv Ullmann might be ___ as well.
b. Susie makes a lot of things her business that shouldn't be ___.

However, VPE cannot target the predicate complement of a specificational clause:

(7) a. *Some people think that the smartest person in the department is Betty, but they are wrong; the luckiest person is ___.

b. *The fact that the tallest player is Harry doesn't mean that the best player is ___.

c. *I know that the lead actress in that movie is Ingrid Bergman, and I think the one in *Double Indemnity* is ___ too.

If we adopt the proposal of Sag (1976) that VPE operates only on expressions that are semantically predicative (in his terms; translate as a λ-abstract in logical form), the failure of VPE in (7) indicates that the predicate complement of a specificational clause is not predicative (contra Heggie (1988:104)). It is unlikely that it is quantificational, since copular clauses generally do not allow a predicate complement expressing quantification over individuals:

(8) *Ingrid Bergman and Liv Ullmann are both of the actresses in the room.

The natural conclusion is that the predicate complement of a specificational clause is of type $\langle e \rangle$, the unmarked type for proper names in the system of Partee (1986). Similar facts hold in Danish, with the twist that VPE leaves behind a proform *det* which is exactly the pronoun used to pronominalize predicative expressions in tag questions and elsewhere (see (5). Thus VPE is possible in the predicational construction in (9a), but not in the specificational construction in (9b), (the trace indicates the base-position of the proform which is fronted to Spec-CP):

(9) a. Ingrid er svensker, så **det** må hendes mor også være ___ *t*.
Ingrid is a.swede, so it must her mother also be t

b. *Den højeste spiller er Minna, så **det** må den bedste spiller ogå være ___ *t*.
the tallest player is Minna, so it must the best player also be t

The conclusion we are lead to is that specificational clauses are distinct from both predicational and equative clauses. The question is what consequences this has for the interpretation of the copula. Since predicational and specificational clauses both involve one predicative expression and one referential expression these clause are both interpretable with an essentially vacuous copula whose only contribution is an instruction "to predicate its $\langle e, t \rangle$ argument of its $\langle e \rangle$ argument" (Partee 1986:362). However, this copula does not provide us with an interpretation of equative clauses, where both NPs are of type $\langle e \rangle$. This essentially leads us to a reaffirmation of the long-held, but often disputed, division between a *be* of predication (found in predicational and specificational clauses) and a *be* of identity (found in equatives).

References

Heggie, Lorie. 1988. The Syntax of Copular Structures. Ph.D. thesis, USC.

Heycock, Caroline, and Anthony Kroch. 1999. Pseudocleft Connectedness: Implications for the LF Interface Level. Linguistic Inquiry 30:365–397.

Higgins, Roger Francis. 1979. The Pseudo-cleft Construction in English. New York: Garland.

Kuno, Susumu. 1972. Some properties of non-referential noun phrases. Studies in General and Oriental Linguistics. Presented to S. Hattori on Occasion of his Sixtieth Birthday, edited by R. Jakobson and S. Kawamoto, 348–373. Tokyo: TEC.

Partee, Barbara. 1986. Ambiguous pseudoclefts with unambiguous *be*. Proceedings of NELS 16, edited by S. Berman, J. Choe, and J.McDonough, 354–366. Amherst, MA: GLSA.

Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech, and Jan Svartvik. 1985. A Comprehensive Grammar of the English Language. London: Longman.

Rothstein, Susan. 2001. Predicates and their Subjects. Dordrecht: Kluwer.

Sag, Ivan A. 1976. Deletion and Logical Form. Ph.D. thesis, MIT.