Equation is Predication: Evidence from Hungarian

Jutta M. Hartmann & Veronika Hegedűs

University of Tübingen / RIL Hungarian Academy of Sciences jmh@juttahartmann.de / hegedus@nytud.hu

1 Introduction

- (1) Main claims:
 - (i) All types of copula clauses have a syntactic predicate configuration (which is mapped onto a semantic predication structure) including equative structures. (cf. also Den Dikken 2006 and references therein)
 - (ii) The major difference between predicational and specificational sentences lies in their information structure - in specificational sentences, the subject of predication sits in the structural focus position.
 - (iii) It is important to bear in mind that *DP be DP* clauses can be ambiguous between three different readings (predicational specificational equative)

1.1 Copular clauses in Hungarian and English

- Copular clauses can be divided into the following three types: predicational, specificational, equative (cf. Huber 2002; Mikkelsen 2004; Geist 2006; Kádár 2007 among many others, originally 4 types in Higgins 1979)
 - 1. predicational
 - 2. specificational
 - 3. equative/identity statements
- We also find these three types in Hungarian and English.

1.1.1 Predicative copula clauses

- (2) a. János okos -/volt. John clever -/was 'John is/was clever.'
 - b. János orvos -/volt.John doctor -/was'John is/was a doctor.'

- c. János a kert-ben van/volt. John the garden-INE is/was 'John is/was in the garden.'
- (3) a. John is clever.
 - b. John is a doctor.
 - c. John is in the garden.
- (4) The Sea Life Centre is the perfect venue for many a special occasion. (BNC, text="BPC" n="59")
- (5) Since Edinburgh is the focus of this study, the context will be a Scottish one: ...(BNC, text="EVJ" n="14)

1.1.2 Specificational copula clauses

- (6) a. JÁNOS lesz Mari férje John will.be Mary husband.poss 'Mary's husband will be John.'
 - b. Mari férje JÁNOS lesz. Mary husband.poss John will.be 'Mary's husband will be John.'
- (7) a. Mary's husband is John.
 - b. The best candidate was John.
- (8) The Conservative election victory weakens any quasi-formal link with Labour still further. After all, as one CND council member said, less than 48 hours after the election, 'The only party that can cancel Trident now is the Conservative Party.' (BNC, text="CAK" n="98")
- (9) The regimes under which nationalised industries function are by no means the only examples of vertical devolution under the United Kingdom constitution at present. Arts and Sports Councils established under Acts of Parliament and funded by block grant offer a further instance. Yet another example is the BBC, established under Royal Charter and financed by licence fees. (BNC, text="C8R" n="65")

1.1.3 Equatives/Identity sentences

- (10) a. Az Esthajnalcsillag A VÉNUSZ. the Evening.Star the Venus 'The Evening Star is Venus.'
 - b. PETER PARKER volt Pókember. Peter Parker was Spiderman 'Spiderman was Peter Parker.'

- (11) A háború háború.
 - the war war
 - 'War is war.'
- (12) a. The Morning Star is the Evening Star.
 - b. Cicero is Tully.
- (13) a. War is war.
 - b. Happy is happy.

1.2 The ambiguity problem in DP be DP

- DPs (including definite DPs) can be interpreted as properties (in the sense of Chierchia 1985) or individuals.
- Depending on the combination of choices, different readings arise for the following surface orders in English.

	DP1	DP 2
predicational	Individual	Property
specificational	Property	Individual
equative I	Individual	Individual
equative II	Property	Property

Table 1: Possible interpratations of *DP* be *DP* combinations

- (14) Hamlet is my best friend.
 - R1: Hamlet has the property of being my best friend. (predicational)
 - R2: The person who is called Hamlet is the same person as the person that is my best friend. (identity)
- (15) My best friend is Hamlet.
 - R1: The person who is my best friend has the property of being (playing) Hamlet. (predicational)
 - R2: The (unique) member of the set designated by 'my best friend' is the person who is called Hamlet (specificational)
 - R3: The person who is my best friend is the same person as the person that you know as Hamlet. (identity)
 - The reading R2 in (15) and R1 (14) seems to be an information structural difference.
 - As information structure is structurally represented in Hungarian, we can reduce these ambiguities.

- 'Hamlet' as property -> role reading
- (16) a. A LEGJOBB BARÁTOM volt Hamlet the best friend.poss was Hamlet 'It's my best friend that was (played) Hamlet'
 - b. [ContrTop Hamlet] A LEGJOBB BARÁTOM volt.

 Hamlet the best friend.poss was

 'As for Hamlet, it's my best friend who was that.'
 - 'my best friend' as property¹
- (18) a. HAMLET volt a legjobb barátom.

 Hamlet was the best friend.poss
 'My best friend was Hamlet.'

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- b. [ContrTop A legjobb barátom] HAMLET volt.
 the best friend.poss Hamlet was
 'As for my best friend, it was Hamlet, who was it.'
- c. [Top Hamlet] A LEGJOBB BARÁTOM volt.

 Hamlet the best friend.poss was 'Hamlet was my best friend.'
- Equative (both DPs interpreted as individuals)
- (19) PETER PARKER volt Pókember. Peter Parker was spiderman 'Peter Parker was Spiderman'

This suggests that the sentence with two definites only seemingly has a neutral interpretation. The issue deserves a more in-depth study.

¹A reviewer pointed out that in *HAMLET lesz a legjobb barátom*. 'My best friend will be Hamlet' (so the word order in (18-a)), *Hamlet* is not necessarily in the structural focus position: the sentence can have an even intonation pattern as an answer to the question *Why are you so excited?*. This goes against the observation that copula sentences with two definite DPs cannot be neutral (cf. Kádár, 2007). The problem is that it is very hard to distinguish between a structural focus reading (with an exhaustive interpretation) from a neutral reading: with both DPs being definite, there is hardly a way to interpret these sentences non-exhaustively. As soon as we make the predicate indefinite, it is not possible to have the subject of predication in preverbal position, without it being in focus, i.e. receiving an exhaustive reading:

⁽¹⁷⁾ A LOKALITÁS lesz egy nyilvánvaló probléma Locality will-be an obvious problem. 'An obvious problem will be locality.'

2 Equatives

• Major claim: there is a syntactic predication (PrP, cf. Rothstein (1983); Bowers (1993) and follow-up work; see also RP (relator phrase) in Den Dikken (2006))) in equatives (see Hegedűs forthcoming).

2.1 Data

• One of the DPs has both referential and predicate-like properties.

2.1.1 Predicate-like behaviour

- One element is dative when embedded under *consider*-type verbs.
- (20)fogva PETER PARKERT gondoltuk Kezdettől Parker.ACC believed.1pl beginning.from taken Peter Pókembernek. Spiderman.DAT
 - 'We believed Peter Parker to be Spiderman from the beginning.'
 - sokat a szuperhősök alteregóiról, not know.1sg much the superheroes alteregoes.from but 'I don't know much about the alteregoes of superheroes, but' Pókembert PETER PARKERNEK gondolom. Spiderman.ACC Peter Parker.DAT think.1sg 'I believe Spiderman to be Peter Parker.'
 - The constituent in dative cannot be a regular topic, but just a contrastive topic.
- (21)a. $*|_{TopP}$ Pókembernek PETER PARKERT tartottuk]]. Spiderman.DAT Peter Parker.ACC considered.1pl 'We considered Peter Parker to be Spiderman.'
 - [FocP] PETER PARKERT tartottuk |_{ContrTP} Pókembernek ||Spiderman.DAT Peter Parker.ACC considered.1pl 'As for being Spiderman, we considered Peter Parker to be that.'

2.1.2 Referential properties

- Modification by non-restrictive relative clauses with 'who' (cf. Rothstein, 1995)
- (22)The duty nurse, who is very efficient, is Rina, who I am very fond of. *I consider Rina the duty nurse, who is very efficient.
 - relative pronoun 'aki' ('who') with both DPs instead of 'ami' ('what'); cf. (23)
- (23)Peter Parkert. aki egy irodában dolgozik, tartottuk Pókembernek, Peter Parker.ACC who an office.in works considered Spiderman.DAT aki mellesleg minden nap életeket ment. who by.the.way every day lives.acc saves 'We considered Pater Parker, who works in an office, to be Spiderman, who, by the way, saves lives every day.

- 'Spiderman' is a derived predicate, not a property. Thus, we do not get the type mismatch with the relative clause, as we see it in (22-b).
- Intensive reflexives: either DP can be modified (test from Rothstein 2001)
- (24) a. MAGA PETER PARKER volt Pókember. himself Peter Parker was Spiderman 'Peter Parker himself was Spiderman.'
 - b. MAGA PÓKEMBER volt Peter Parker. himself Spiderman was Peter Parker 'Spiderman himself was Peter Parker.'
- (25) a. Cicerot MAGÁNAK TULLINAK gondolom Cicero.acc himself.dat Tulli.dat believe.1sg 'I believe Cicero to be Tulli himself.'
 - b. MAGÁT CICEROT gondolom Tullinak himself.acc Cicero.acc believe.1sg Tulli.dat 'I believe Cicero himself to be Tulli.'
 - PRO in control structures (either DP can be predicate; PRO cannot be a predicate.)
- (26) a. Peter Parker próbált Pókember lenni.
 Peter Parker tried Spiderman be.inf
 'Peter Parker tried to be Spiderman.'
 - b. Pókember próbált Peter Parker lenni. Spiderman tried Peter Parker be.inf 'Spiderman tried to be Peter Parker.'

2.1.3 Further data

- Identity statements are asymmetric (one has to be the subject)
- (27) a. *Háború háború.

war war 'War is war.'

- b. A háború háború. the war war 'War is war.'
- (28) a. *Boldog boldog. happy happy 'Happy is happy.'
 - b. *Boldogság boldogság.happiness happiness'Happiness is happiness.'
 - c. A boldogság boldogság. the happiness happiness 'Happiness is happiness.'

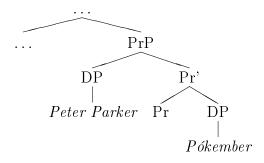
- PrP imposes restrictions on the type of subject it can take (no AdjP, bare nouns/NPs in Hungarian)
- (29) a. *Lassú lassú. slow slow 'Slow is slow.'
 - b. Ami lassú, lassú. what slow slow '(What is) slow is slow.'

(pseudocleft structure)

2.2 Proposal

- Equatives are derived from a syntactic predicate structure, PrP (cf. Bowers 1993 follow-up)
- One DP has to move to FocP (just like with the other DP be DP structures).
- Either DP can move to FocP.
- (30) a. Q: 'Ki volt Pókember?' A: 'PETER PARKER volt Pókember.' who was Spiderman Peter Parker was Spiderman 'Who was Spiderman?' 'Peter Parker was Spiderman.'
 - b. Q: 'Ki volt Peter Parker?' A: 'Peter Parker PÓKEMBER volt.'
 who was Peter Parker Peter Parker Spiderman was
 'Who was Peter Parker?' 'Peter Parker was Spiderman.'
 - Both DPs are of type <e>, which derives the referential properties of the two phrases.
 - The function of Pr must be to make a propositional function out of its complement (in the sense of Chierchia (1985))

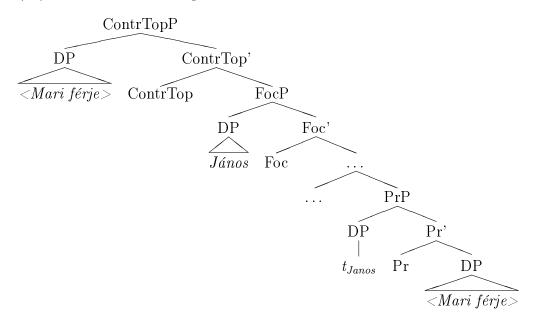
(31) Structure of Equatives



3 Specificational Copula Clauses

3.1 Proposal for Hungarian

- In Hungarian, the specificational copula clauses are those in which the subject of predication is in the focus position of the clause (Kádár 2007 for a similar position).
- The predicate can either be postverbal or contrastively topicalized.
- (32) Structure of Hungarian Specificational Copula Clauses



3.1.1 Tests for Predicatehood

- embedding under 'consider' -> predicate is marked dative
- (33) a. JÁNOST tartom a legjobb barátomnak.

 John.ACC consider the best friend.poss.DAT

 'I consider my best friend to be John.'
 - b. #A LEGJOBB BARÁTOMAT tartom Jánosnak the best friend.poss.ACC consider John.DAT '#I consider my best friend John.'
 - Intensive reflexives (test from Rothstein 2001)
- (34) a. A csoportvezető MAGA JÁNOS volt. the team-leader himself John was 'The teamleader was John himself.'
 - b. *JÁNOS volt maga a csoportvezető .

 John was himself the teamleader

 'John was the teamleader himself.'

- PRO in control structures ((35-b) is odd unless 'John' is predicative)
- (35) a. János próbált a tanárunk lenni. John tried the teacher.poss be.inf 'John tried to be our teacher.'
 - b. #A tanárunk próbált János lenni. the teacher.poss tried John be.inf 'Our teacher tried to be John.'
 - test with tag-question does not work for Hungarian: the tag depends on the main predication or focus (Kádár, 2007, cf.)
- (36) a. Az igazgató fiatal / rendes ember / egy zseni, vagy nem (az/ *ő)? the director young / decent man / a genius or not (that/ *he) 'The director is young / a decent man / a genius, isn't he?
 - b. Az igazgató Pest-en lakik, vagy nem (ott) the director Pest-INE lives or not (there) 'The director lives in Pest, doesn't he? (cf. Kádár, 2007, 105)
- (37) a. Nagy Elek AZ IGAZGATÓ volt, vagy nem (*ő / az volt)?

 Nagy Elek the director volt was or not (he / that was)

 'Elek Nagy was the director, wasn't he / *it?
 - b. Az igazgató NAGY ELEK volt, vagy nem (ő / *az volt)? the director Nagy Elek was or not (he / that was) 'The director was Elek Nagy, wasn't *he/it? (Kádár, 2007, 105)
 - relative pronoun 'ami' ('what') with predicative noun phrases (see also Kádár 2007)
- (38) a. Robert Capa, aki Párizsban is élt, híres fényképész volt. Robert Capa who Paris.in too lived famous photographer was 'Robert Capa, who lived in Paris, was a famous photographer.'
 - b. Robert Capa híres fényképész volt, ami én soha nem leszek. Robert Capa famous photographer was what I never not will.be 'Robert Capa was a famous photographer, which I will never be.'
- (39) a. A legjobb barátom, ami te soha nem leszel, mindig is JÁNOS the best friend.poss what you never not will.be always too John volt.

 was
 - 'My best friend, which you will never be, has always been John.'
 - b. *A legjobb barátom, ami te soha nem leszel, a szomszédban the best friend.poss what you never not will.be the neighbour.in lakik.

lives

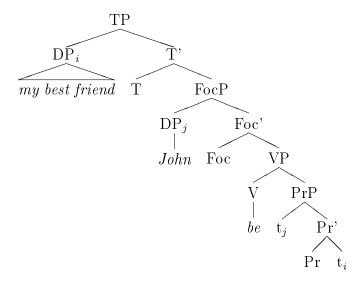
'My best friend, which you will never be, lives next door.'

- Pronominalization with 'az' ('that')
- (40) A legjobb barátja JÁNOS, de három éve még PÁL volt (az/ *ő). the best friend.poss John but three year.of still Paul was (that) 'His best friend is John, but three years ago it was Paul.'

4 Extension to English

4.1 A Tentative Analysis

- Following Williams (1983); Moro (1997); Heycock and Kroch (2002); Mikkelsen (2004); Dikken (2006) (among others), we suggest that specificational copula clauses involve predicate inversion.
- The subject of predication is in focus (cf. Guéron 1994; Dikken 2006 and references therein).
- This focus is not information focus but equivalent to Hungarian structural focus.
- (41) Specificational copula clauses in English



4.1.1 Tests for Predicatehood

- Pronominalization with 'it' and 'that' (property anaphors) (cf. Kuno 1972 cited in Mikkelsen 2005)
- (42) a. The tallest girl in the class is Molly, isn't it?
 b. The tallest girl in the class is Swedish, isn't she/*it?
 (Mikkelsen, 2004, 64)
- (43) a. The tallest girl in the class, {that/it}'s Molly.
 b. The tallest girl in the class, {she/*it/*that} 's Swedish. (Mikkelsen, 2004, 64)
- (44) a. Q: Who is the tallest girl in class?

- b. A: {That/It}'s Molly. (Mikkelsen, 2004, 64)
- (45) a. Q: What nationality is Molly? b. A: {She/*It/*That}'s Swedish. (Mikkelsen, 2004, 64)
 - Pronominalization with it possible
- (46) a. The culprit isn't you, *he/*she/it is Fiona.
 b. Who she met was John? I don't think so: *he/*she/it was Bill.
 (Heycock and Kroch 2002, 146, see also Büring 1998; Mikkelsen 2004)
- (47) a. *The best candidates were John and Bill, wasn't it?
 b. It was John and Bill who were the best candidates, wasn't it?
 (Heycock and Kroch, 2002, 146)
 - 'what' may only refer to a property (Higgins 1973 quoted from Heggie 1988)
- (48) A: What is John?
 - B: John is the concert pianist I told you about.
- (49) A: What is the concert pianist I told you about?
 B1:*The concert pianist I told you about is John.
 B2: The concert pianist I told you about is French.
 - Intensive Reflexives adjoin to referential arguments only
- (50) a. John himself is the organizer of the group.
 - b. John is the organizer of the group himself.
 - c. *The organizer of the group himself is John.
 - d. The organizer of the group is John himself. (Rothstein, 2001, 253)
 - In control structures 'be' can only occur with a predicate (i.e. PRO cannot be an inverted predicate)(cf. Heggie, 1988)
- (51) a. John tried [PRO to be our teacher]
 - b. *Our teacher tried [PRO to be John]
 - In it-clefts, only arguments can be clefted, but not predicates (cf. Heggie, 1988)
- (52) a. John Smith is my doctor.
 - b. It's John Smith that is my doctor.
 - c. *It's my doctor that John Smith is.
- (53) a. My doctor is John Smith.
 - b. *It's my doctor that is John Smith.
 - c. *It's John Smith that my doctor is.

4.1.2 Information Structure of Specificational Sentences

- Specificational copula clauses have a fixed IS: it is impossible to shift the accent to the subject position. This is possible with regular predicative sentences. (Heggie, 1988; Heycock, 1994).
- (54) A: Who was the culprit? (John or Bill?)
 - B': The culprit was JOHN.
 - B": JOHN was the culprit.
- (55) A: What was John? (Was John the culprit or the victim?)
 - B': *The CULPRIT was John.
 - B": John was the CULPRIT.
 - Mikkelsen (2004): The initial element of a DP-inversion must be at least as Discourse-old as the final element, and it cannot be entirely discourse-new.
 - From our point of view, 2 is out because for that order, 'John' has to be focussed.

4.1.3 Exhaustivity

- Question: Is the focus in specificational sentences equivalent to Hungarian structural focus?
- Hungarian structural focus is exhaustive (cf. Szabolcsi 1981; Kenesei 1986; É. Kiss 1998)
- (56) É Kiss's (1998:245) definition of the function of identificational focus: An identificational focus represents a subset of the set of contextually or situationally given elements for which the predicate phrase can potentially hold; it is identified as the exhaustive subset of this set for which the predicate phrase actually holds.
- (57) a. MARI ÉS KATI volt a témavezetőm. Mary and Kati was the supervisor.poss 'My supervisor were Mary and Kate.' $\neq >$
 - b. MARI volt a témavezetőm.

 Mary was the supervisor.poss
 'My supervisor was Mary.'
 - Similarly, exhaustivity has been observed in the specificational copula clauses
- (58) a. When I introduced him to my sister he was very polite.
 - b. Sue is my sister, and Lucy is also my sister.
 - c. *My sister is Sue and my sister is also Lucy. (Heycock 2006, see also Higgins 1979)
- (59) A: Who here is the president of a large company?
 - B': JULES is the president of a large company, and JIM is also and so is JOCASTA.

B": *The president of a large company is JULES. And it is also/so is JIM, and JOCASTA.
(Heycock, 2006)

4.1.4 Advantages

- If we assume that the subject of predication has to move to a focus position, we can explain why the specificational structure is not possible with passivized ECM verbs and raising predicates. (cf. Heycock and Kroch 1998; Huber 2002 who took these data to show that the inversion analysis is not correct): there is no focus position available in the complement of these small clause verbs.
- (60) *The murderer is considered the butler t. (Huber, 2002, 125)
- (61) *The murderer seems the butler t. (Huber, 2002, 125)
 - It is impossible to extract the post-verbal DP because it is frozen in the focus position (Criterial freezing, cf. Rizzi 2006)
- (62) a. *which picture do you think the cause of the riot was t?
 b. *which wall do you think the cause of the riot was a picture of t?
 (Moro, 1997, p.49)

4.1.5 Problem

- Are the observed exhaustivity effects due to the definiteness of the predicate or due to the focus? Testing ground: indefinite predicate DPs
- (63) A serious problem to the analysis is locality.
- (64) A good topic to write a thesis about is topic and focus.

5 Conclusion

- All types of copula clauses have a syntactic predicate configuration (which is mapped on a semantic predication structure)
- Equatives also have a syntactic predication structure; there is an asymmetric relation between the two.
- Specificational sentences have a fixed information structure: the subject is focus. Focusing of the subject gives an exhaustive reading.

6 Appendix: Extraction data with equatives

- Subextraction from the subject seems possible in Hungarian but not in English.
- (65) a. *Which city is your opinion of my opinion of Philadelphia?
 - b. *Which city is your opinion of Edinburgh my opinion of?
 - c. Which city is your opinion of my opinion of? (Heycock and Kroch, 1999, 378)
- (66) A te véleményed Edinburgh-ról (volt) az én véleményem the you opinion.poss Edinburgh.off (was) the I opinion.poss Philadelphiáról.

 Philadelphia.off
 - 'Your opinion of Edinburgh is (was) my opinion of Philadelphia.'
- (67) a. Melyik városról (volt) a te véleményed az én véleményem which city.off (was) the you opinion.poss the I opinion.poss Philadelphiáról?

 Philadelphia.off

 'Which city is (was) your opinion of my opinion of Philadelphia?'
 - b. A te véleményed Edinburgh-ról melyik városról (volt) az én the you opinion.poss Edinburgh-off which city.off (was) the I véleményem?

 opinion

 'Which city is (was) your opinion of Edinburgh my opinion of?'
- (68) Melyik városról volt a te véleményed az én véleményem? which city.off was your opinion my opinion 'Which city is your opinion of my opinion of?'

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