# Specifying why a doctor isn't Mary

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## 1 The puzzle: the indefinite restriction

- Simple indefinite DPs tend to make poor subjects of specificational copular clauses (SCCs).
- (1) a. \*A doctor is Mary.
  - b. \*A building is Robarts Library.
  - c. \*A linguist is Eric Lenneberg
  - More complex indefinites are better SCC subjects.
- (2) a. A newly-minted doctor is Mary.
  - b. A building on campus no-one likes is Robarts Library.
  - c. An underrated figure in the history of generative grammar is Eric Lenneberg.

Question: What is the nature of the indefinite restriction? How is it best characterized?

My Answer: An SCC subject must contain, but not be, a contrastive topic marked constituent.

### 1.1 Outline

- Mikkelsen's (2004) pragmatic analysis of SCC subjects.
- Theory background (Büring 2003)
- Arguments for my solution
- Ruling in (2) and ruling out (1)
- Conclusion

# 2 Mikkelsen's (2004) Analysis

- Mikkelsen argues for a discourse-pragmatic analysis of the indefinite restriction.
  - This is in contrast to a semantic analysis argued for e.g. by Heycock (2012). (See Appendix A)
- She observes that SCCs have a rigid information structure: DP2 must be focus/DP1 cannot be focus.
- (3) a. Who is the winner?
  - (i) The winner is John.

(Specificational)

(ii) John is the winner.

(Predicational)

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- b. What is John?
  - (i) #The winner is John.

(Specificational) (Predicational)

(ii) John is the winner.

- It follows that DP1 must be topical. (i.e., discourse given)
- Indefinites introduce new discourse referents. (Heim's (1982) Novelty Condition)
- The indefinite restriction, then, is due to a clash between the topichood requirement on SCC subjects and the Novelty Condition on indefinites.
- Those indefinites that are licit SCC subjects are relatively given compared to DP2.

#### **However:**

- Simple indefinites (a(n) N) cannot be SCC subjects regardless of how given/topical they are.
- (4) Bill is a doctor. #A doctor is John (too) (Mikkelsen 2004, p236)
  - Mikkelsen leaves this puzzle open, suggesting the unacceptibility of (4) may be related to the general infelicity
    of two adjecent instances of a DP as in (5).
- (5) Sally is a doctor. #A doctor came to dinner last night. (Mikkelsen 2004, p236)
  - The second sentence in (5) is acceptable if a doctor is not uttered in the previous sentence.
  - The SCC in (4) cannot be made acceptable.
- (6) I know some doctors.
  - a. A doctor came to dinner last night.
  - b. #A doctor is John.
  - If we require that part of the SCC subject be marked as contrastive topic, we can capture the data.

# 3 Theoretical Background: Contrastive Topics

- The notion of Contrastive Topic (CT) comes from Büring's (2003) analysis of Jackendoff's (1972) A- and B-Accents
- (7) (Well, what about FRED? What did HE eat?) FRED<sub>B</sub> ate the BEANS<sub>A</sub>.
- (8) (Well, what about the BEANS? Who ate THEM?) FRED<sub>A</sub> ate the BEANS<sub>B</sub>.
  - The A-Accent, which corresponds to the Wh-element in each example marks Focus.
  - Büring (2003) refers to the B-accented element as the CT (cf. Roberts's (2012) dependant focus)
  - The function of CT, like that of Focus, is to generate alternatives.
  - Focus alternatives are representable as sets of propositions (Rooth 1992) equivalent to the interpretations of questions (Groenendijk and Stokhof 1996)
  - CT alternatives are representable as sets of sets of propositions.

(9) a. 
$$[FRED_B \text{ ate the BEANS}_A]^f = \begin{cases} Fred \text{ ate the corn} \\ Fred \text{ ate the beans} \\ Fred \text{ ate the apples} \\ \dots \end{cases} = [What did Fred eat?]$$

b. 
$$[FRED_B \text{ ate the BEANS}_A]^{ct} = \begin{cases} What & \text{did Fred eat?} \\ What & \text{did Mary eat?} \\ What & \text{did Robin eat?} \end{cases} = [What & \text{did who eat?}]^{t}$$

• Büring represents these interpretations as d(iscourse)-trees

(10)  $[FRED_{CT}]$  ate the  $BEANS_F[]^{ct}$  What did who eat?

What did Mary eat? What did Fred eat?

Fred ate the corn Fred ate the apples Fred ate the beans

- Generally, CT-Foc structures identify a question and superquestion that they answer.
- CT-Foc structures have multiple discourse functions that the d-trees can represent.
- (Roberts 2012)

  B: I'm going to [China]<sub>CT</sub> in [April]<sub>F</sub>.

  b. When are you going to which place?

When are you going to ...? When are you going to China?

|
April

(12) a. A: What did the pop stars wear? B: The [female]<sub>CT</sub> pop stars wore [caftans]<sub>F</sub>.

b.

(Büring 2003)

What did the pop stars wear?

What did the male pop stars wear?

What did the female pop stars wear?

The female pop stars wore caftans.

# 4 Contrastive is the right kind of topic for SCC subjects

• SCC subjects are topics, but neither givenness nor aboutness are sufficient

Hypothesis 1: SCC subjects must be givenness topics

- If SCC subjects must be relatively given, then fully given subjects ought to be preferred.
- Fully given subjects are infelicitous, partially given subjects are acceptable
- (13) Many philosophers have written about the mind-body problem.
  - a. #A philosopher who has written about the mind-body problem is Chomsky.
  - b. A modern philosopher who has written about the mind-body problem is Chomsky.
  - (Relative) givenness isn't the factor that allows a DP to be an SCC subject.

**Hypothesis 2:** SCCs must be about their subjects.

• A sentence's topic, is what the sentence is about.

#### (14) Test for aboutness (Reinhart 1981):

If John saw Bill is about John, then

Mary said John saw Bill = Mary said about John that he saw Bill

• It is permissible for an SCC to be about only part of its subject.

**Assumption:** SCC subjects are only interpreted *de dicto*.

(15) (**Context:** *David Bowie is my favourite singer.* is True )

My favourite singer is Ziggy Stardust

- a. Mary said my favourite singer is Ziggy Stardust (de relde dicto)
- b. Mary said about singers that my favourite is Ziggy Stardust (\*de relde dicto)
- There seems to be no requirement that SCCs be about their subject DPs.

#### My Proposal

- The licit SCC subjects in (2) are most naturally pronounced with intonational stress on some component.
- (16) a. A NEWLY-minted doctor is Mary.
  - b. A newly-MINTED doctor is Mary.
  - c. A newly-minted DOCTOR is Mary.
  - d. #A newly-minted doctor is Mary.
  - Each of the intonation patterns in (16-a-c) can be used in a distinct set of discourse contexts.
  - The discourse contexts of SCCs are identical to canonical CT-Foc structures.
- (17) Who is a veteran doctor?
  - a. A NEWLY-minted doctor is Mary.
  - b. #A newly-minted DOCTOR is Mary.
  - The intonation pattern in (17-b) is infelicitous because it incorrectly marks *doctor* as novel and *newly-minted* as given.
- (18) #A newly-minted DOCTOR is Mary.

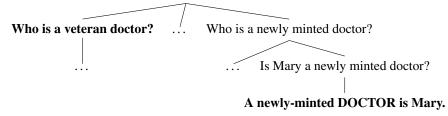
Who is a newly-minted what?

... Who is a newly minted doctor?
... Is Mary a newly minted doctor?

# A newly-minted DOCTOR is Mary.

(19) A NEWLY-minted doctor is Mary.

Who is a doctor of what level of experience?



#### (20) CT condition on SCC subjects (part one):

Some constituent of the subject of an SCC must be CT-marked.

• Ruling out simple indefinite SCCs can be done with a simple extension of (20).

#### (21) CT condition on SCC subjects (part two):

The entire SCC subject must not be CT-marked

- Consider the CT-Foc structure of (22)
- (22) \*A doctor is Mary.
  - DP2 is focused. (Mikkelsen 2004)
  - Some constituent of DP1 is CT-marked.
  - te indefinite article is not CT marked.
  - doctor must be CT-marked.
  - Assuming the indefinite article is semantically vacuous, a [doctor]<sub>CT</sub> is equivalent to [a doctor]<sub>CT</sub>.
  - So, (22) requires that the entire SCC subject be CT-marked, violating the proposed CT condition on SCCs.

### 4.1 Apparent counter-examples

### 4.1.1 Stressed a(n)

- A version of (22) with a stressed indefinite article ([ej] in my dialect) is more acceptable than (22) as is.
- (23)  $?A_{CT}$  doctor is Mary.
  - The stressed indefinite article generally marks a contrast with the definite article.
- (24) A: You must be the professor.
  - B: I'm  $A_F$  professor.
  - This is predicted by the proposed CT condition on SCC subjects.

#### (25) CT condition on SCC subjects:

- (i) Some constituent of the subject of an SCC must be CT-marked.
- (ii) The entire SCC subject must not be CT-marked.
- $a_{CT} \ doctor \neq [a \ doctor]_{CT}$
- a constituent of the SCC subject rather than the entire subject is CT-marked.

#### 4.1.2 One and another

- "Simple" indefinite DPs headed by *one* or *another* can be SCC subjects.
- (26) a. One doctor is Mary.
  - b. Another doctor is Molly.
  - The term "simple indefinite" for these examples is a misnomer.
  - One and another are complex determiners.
  - Kayne (2015) argues that *one* is composed of the indefinite determiner and a "singular classifier."
    - -one = w-+an
  - Heim, Lasnik, and May (1991) provides an analysis of another as an+other
  - In both cases the determiner-like element bears a contentful element that can be CT-marked
- (27) a. w-CT-an doctor is Mary.
  - b. an--other $_{CT}$  doctor is Molly.

### 4.2 Questions/Implications

- Though it seems to make the right generalization, the CT condition is a rather odd constraint.
  - It is reasonable to associate a particular construction or transformation with a particular information structure.
  - The requirement that part but not all (and often not the head) of the subject be CT-marked is difficult to formulate syntactically.
- Like any generalization, it should be derivable from general properties of the computational system. I leave that to further research.

### 5 Conclusion

- The indefinite restriction is pragmatic in nature.
- Following Mikkelsen's (2004) observation, I analysed the SCC subject as topical (in some sense).
- SCC subjects must contain but not be CT-Marked constituents.
- This generalization predicts which indefinte DPs are acceptable SCC subjects in what discourse contexts, and rules out simple indefinite SCC subjects.

### References

Jackendoff, Ray (1972). Semantics in Generative Grammar. Cambridge, MA: MIT Press.

Milsark, Gary L (1974). "Existential sentences in English". PhD thesis. Massachusetts Institute of Technology.

Lenerz, Jürgen (1977). Zur Abfolge nominaler Satzglieder im Deutschen. Tübingen: Gunter Narr.

Reinhart, Tanya (1981). "Pragmatics and Linguistics: An analysis of sentence topics". In: *Philosophica* 27.1, pp. 53–94.

Heim, Irene (1982). "The semantics of definite and indefinite noun phrases". PhD thesis. University of Massachusetts. Heim, Irene, Howard Lasnik, and Robert May (1991). "Reciprocity and plurality". In: *Linguistic Inquiry*, pp. 63–101. Diesing, Molly (1992). *Indefinites*. Cambridge, MA: MIT Press.

Hoop, Helen de (1992). "Case configuration and Noun Phrase interpretation". PhD thesis. University of Groningen.

Rooth, Mats (1992). "A theory of focus interpretation". In: Natural language semantics 1.1, pp. 75–116.

Groenendijk, Jeroen and Martin Stokhof (1996). "Questions". In: *Handbook of Logic & Language*. Ed. by Johan van Benthem and Alice ter Meulen. Cambridge, MA: The MIT Press, pp. 1055–1124.

Büring, Daniel (2003). "On D-trees, beans, and B-accents". In: Linguistics and philosophy 26.5, pp. 511–545.

Mikkelsen, Line Hove Leander (2004). "Specifying who: On the structure, meaning, and use of specificational copular clauses". PhD thesis. University of California Santa Cruz.

Heycock, Caroline (2012). "Specification, equation, and agreement in copular sentences". In: *The Canadian Journal of Linguistics/La revue canadienne de linguistique* 57.2, pp. 209–240.

Roberts, Craige (2012). "Information structure in discourse: Towards an integrated formal theory of pragmatics". In: *Semantics and Pragmatics* 5.6, pp. 1–69.

Kayne, Richard S. (2015). "English one and ones as complex determiners". URL: http://linguistics.as.nyu.edu/docs/IO/2652/Kayne0615One.pdf.

# A Heycock (2012)

- Heycock argues that the indefinite restriction is a ban on weak-quantified DPs as SCC subjects.
- The argument is based on two parallels

#### A.1 Parallel 1

- English SCC subjects cannot be focused (see (3), above), and neither can German scrambled objects. (Lenerz 1977)
- (28) a. Wem hat Peter das Futter gegeben? who.DAT has Peter the.ACC food given "Who has Peter given the food?"
  - (i) Peter hat der Katze das Futter gegeben.
    Peter has the.DAT cat the.ACC food given
    "Peter has given the cat the food"

[Default order]

(ii) Peter hat das Futter der Katze gegeben.
Peter has the ACC food the DAT cat given
"Peter has given the food to the cat"

[Scrambled order]

- b. Was hat Peter der Katze gegeben? what.ACC has Peter the.DAT cat given "What has Peter given (to) the cat?"
  - (i) Peter hat der Katze das Futter gegeben.
    Peter has the.DAT cat the.ACC food given
    "Peter has given the cat the food"

[Default order]

(ii) #Peter hat das Futter der Katze gegeben.

Peter has the ACC food the DAT cat given

"Peter has given the food to the cat"

[Scrambled order]

• According to Hoop (1992) and Diesing (1992) scrambled objects are obligatorily interpreted strong.

#### A.2 Parallel 2

- Milsark (1974) argues that only strong-quantified DPs can serve as subjects of Individual-Level predicate
- (29) I had been struggling with a complicated set of data ...
  - a. ?\*A problem was particularly hard.
  - b. One problem was particularly hard.
  - c. {?A/one} problem that I came across was particularly hard.
  - d. One of the problems was particularly hard.

(Heycock 2012)

- Heycock argues that the same pattern holds for indefinite SCC subjects as shown in (30).
- (30) a. ?\*A problem was that we didn't understand all the parameters.
  - b. One problem was that we didn't understand all the parameters.
  - c. {A/one} problem that I came across was that we didn't understand all the parameters.
  - d. One of the problems was that we didn't understand all the parameters.

(Heycock 2012)

#### A.3 Issues

- Heycock's proposal that the indefinite restriction is a restriction on weak-quantified SCC subjects fails to capture
  the data
- Some weak-quantified DPs can be SCC subjects (31) and some strong-quantified DPs cannot (32).
- (31) a. (i) There is a building no-one likes on St George Street.
  - (ii) **a building no-one likes** is Robarts.
  - b. (i) There are **sm side-effects**.
    - (ii) **Sm side-effects** are headaches and dizziness.
- (32) a. Each doctor is Mary, Bill, Sue, and John. (\*Specificational)
  - b. ?Most early generative grammarians are Chomsky and Halle. (\*Specificational)
  - c. ?SOME side-effects are drowsiness and blurred vision. (\*Specificational)