

Presuppositional Indefinites are Positive Polarity Items

Alya Asarina – MIT (alya@mit.edu)

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1 Introduction

1.1 A puzzle and a solution

This talk addresses a puzzle regarding the scope options available for indefinites in English. Indefinite subjects in examples like (1) cannot take scope below negation: (Beghelli and Stowell 1997; Mayr and Spector (to appear))

- (1) Context: I scheduled a meeting with several students, but left because nobody was there at the appointed time.
A student of mine didn't show up on time, so I just went home.
#($\exists > \neg$): There is a particular student of mine who didn't show up on time.
?!($\neg > \exists$): *No student of mine showed up on time.*

However, ($\neg > \exists$) scope becomes available in a downward-entailing context. (Spector 2004)

- (2) Context: I scheduled a meeting with several students, and will leave only if nobody is there at the appointed time.
If a student of mine doesn't show up on time, I'll just go home.
#($\exists > \neg$): If a particular student of mine doesn't show up on time, ...
($\neg > \exists$): *If no student of mine shows up on time, ...*

Questions:

- Why *can't* an indefinite subject take scope under negation in (1)?
- Why *can* an indefinite subject take scope under negation in (2)?

Proposal: (c.f. Vanden Wyngaerd 1999; Spector 2004)

- *Presuppositional indefinites* are Positive Polarity Items (PPIs).
- *Non-presuppositional indefinites* are not PPIs.

1.2 Outline

Section 2: Properties of Positive Polarity Items (PPIs), and implications for the data above.

Section 3: What are presuppositional indefinites?

Section 4: Data showing that presuppositional indefinites indeed have the properties of PPIs.

Section 5: Some earlier approaches.

Section 6: Conclusion.

1.3 Methodology

Throughout this talk, I use the following methodology for scope judgments:

- The reading (or readings) whose availability *is not* at issue are pragmatically deviant in the given context.
- The reading whose availability *is* at issue is salient.

Consequently:

- If the sentence is deviant in the given context, the at issue reading is absent.
- If the sentence is salient in the given context, the at issue reading is present.

1.4 Before we go on...

Could the puzzle presented above be subsumed under a different generalization?

- Quantificational subjects do not take scope below negation (in a matrix context)? *No*, as seen for *every* in (3).

(3) **Every student of mine didn't show up on time** – only Tom and Kate were there at the start of class.
#($\forall > \neg$): No students of mine showed up on time.
($\neg > \forall$): *Not all students of mine showed up on time.*
- Indefinite subjects never take scope under syntactically lower elements (in a matrix context)? *No*, as seen for *required* in (4).

- (4) Context: I want to have someone erase the whiteboard, but I don't care who does it.
A student of mine is required to erase the whiteboard at the end of class.
 $\#(\exists > \text{required})$: There is a particular student of mine who is required to erase the whiteboard.
 $(\text{required} > \exists)$: *It is required that a student (any student) erases the whiteboard.*

2 Positive Polarity Items (PPIs)

Presuppositional indefinites are predicted to have the same properties as other PPIs. These properties are: (Szabolcsi 2004)

- A. ✗ **scope directly under clausemate negation in a non-downward-entailing context**
- B. ✓ **scope directly under clausemate negation in a downward-entailing context** (Jespersen 1909-1949; Baker 1970)
- C. ✓ **scope under non-clausemate negation** (Ladusaw 1980)
- D. ✓ **scope under clausemate negation with an intervening scopal element** (Kroch 1979)

Recall the proposal presented above:

- *Presuppositional indefinites* are Positive Polarity Items (PPIs): subject to the restriction in A.
- *Non-presuppositional indefinites* are not PPIs: not subject to the restriction in A.

Assuming that the subject in examples (1) and (2) must be interpreted presuppositionally (discussed below), we see that presuppositional indefinites pattern with other PPIs:

- No scope directly under clausemate negation in a non-downward-entailing context [property A]:
- (5) **A student of mine didn't show up on time.** $\times(\neg > \exists)$
- Scope directly under clausemate negation in a downward-entailing context [property B]:
- (6) **If a student of mine doesn't show up on time, ...** $\checkmark(\neg > \exists)$

3 Presuppositionality of Indefinites

$(\neg > \exists)$ scope is possible in examples like those given in (7):

- (7) a. **A TV wasn't purchased**, so we have to cancel our Superbowl party.
 $\#(\exists > \neg)$: There is a particular TV that wasn't purchased.
 $(\neg > \exists)$: *No TV was purchased.*

- b. **A script hasn't been written**, so we can't shoot the movie.
 $\#(\exists > \neg)$: There is a particular script that hasn't been written.
 $(\neg > \exists)$: *No script has been written.*

I propose that this is due to the indefinite subjects in (7) being interpreted *non-presuppositionally*. What does that mean?

Presuppositional indefinite: Presupposed that the set denoted by the NP is non-empty.

- (8) $\#$ I'm not sure yet whether there any mistakes at all in this book manuscript, but we can definitely not publish it **if some mistakes are major**. (von Stechow 1998: 9c)

Non-presuppositional indefinite: Not presupposed that the set denoted by the NP is non-empty.

- (9) I'm not sure yet whether there any mistakes at all in this book manuscript, but we can definitely not publish it **if some major mistakes are found**. (von Stechow 1998: 9b)

What forces an indefinite to be interpreted presuppositionally?

- subject of an individual-level predicate (Diesing 1992; von Stechow 1998)
- Maximize Presupposition?: If two items yield the same truth conditions when their presuppositions are satisfied, use the item with the stronger presuppositions if possible (Heim 1991).

The definition of presuppositional indefinites above together with Maximize Presupposition makes too strong a prediction regarding the use of presuppositional indefinites:

1. The existence of scripts is part of the common ground.
2. The indefinite *a script* must be interpreted presuppositionally.
3. No $(\neg > \exists)$ in (10) (wrong!):

- (10) **A script hasn't been written.** $(\neg > \exists)$

Instead, I propose that:

Presuppositional indefinite: Presupposed that *the intersection of* the set denoted by the NP intersected *with the set of salient individuals* is non-empty.

Non-presuppositional indefinite: Not presupposed that *the intersection of* the set denoted by the NP intersected *with the set of salient individuals* is non-empty.

Maximize Presupposition now correctly allows the indefinites in (11) to be interpreted non-presuppositionally (and thus scope below negation):

- (11) a. **A TV wasn't purchased.**
no salient TVs \rightarrow non-presuppositional $\rightarrow \checkmark(\neg > \exists)$
b. **A script hasn't been written.**
no salient scripts \rightarrow non-presuppositional $\rightarrow \checkmark(\neg > \exists)$

What about our original example (repeated in (12))? It is correctly predicted that the indefinite subject is interpreted presuppositionally.

- (12) Context: I scheduled a meeting with several students, but left because nobody was there at the appointed time.
A student of mine didn't show up on time, so I just went home.
#($\exists > \neg$): There is a particular student of mine who didn't show up on time.
??($\neg > \exists$): *No student of mine showed up on time.*
there are salient students of mine \rightarrow presuppositional $\rightarrow \times(\neg > \exists)$

To sum up the available interpretations of indefinites:

- subject of individual-level predicate \rightarrow presuppositional interpretation (syntactic effect) (Diesing 1992)
- there are salient individuals described by the NP \rightarrow presuppositional interpretation (pragmatic effect)
- there are no salient individuals described by the NP \rightarrow non-presuppositional interpretation (pragmatic effect)

4 PPI properties of presuppositional indefinites

Now that we can identify presuppositional indefinites, we can check that they have the properties attributed to other PPIs.

- A. \times scope directly under clausemate negation in a non-downward-entailing context
- B. \checkmark scope directly under clausemate negation in a downward-entailing context (Jespersen 1909-1949; Baker 1970)
- C. \checkmark scope under non-clausemate negation (Ladusaw 1980)
- D. \checkmark scope under clausemate negation with an intervening scopal element (Kroch 1979)

4.1 Property A: \times scope directly under clausemate negation in a non-downward-entailing context

Some NPs are PPIs, and are interpreted above negation:

- (13) a. #John didn't call Mary – in fact, **he didn't call someone.**
#($\exists > \neg$): There is somebody John didn't call.
 $\times(\neg > \exists)$: *John didn't call anyone.*

Indefinite subjects of individual-level predicates are obligatorily presuppositional, and consequently must be interpreted above negation.

- (14) a. #Some students of mine are Russian, but **a student of mine isn't Ukrainian.**
#($\exists > \neg$): There is a student of mine who is not Ukrainian.
 $\times(\neg > \exists)$: *No student of mine is Ukrainian.*
b. #Some students of mine are really tall, and **a student of mine isn't short.**
#($\exists > \neg$): There is a student of mine who is not short.
 $\times(\neg > \exists)$: *No student of mine is short.*

The same holds for presuppositionally-interpreted objects, as forced by the context provided in (15).

- (15) Context: My boyfriend will only go to a party if he knows at least a few people there. I'm going to a party with my high school friends.
My boyfriend won't come to the party – he doesn't know a high school friend of mine.
#($\exists > \neg$): There is a high school friend of mine my boyfriend doesn't know.
 $\times(\neg > \exists)$: *My boyfriend doesn't know any high school friends of mine.*

4.2 Property B: \checkmark scope directly under clausemate negation in a downward-entailing context

Embedding in a downward-entailing context “rescues” PPIs under negation:

- (16) **If John didn't call someone**, then nobody knows where he is.
#($\exists > \neg$): If there is somebody John didn't call, ...
($\neg > \exists$): *If John didn't call anyone, ...*

Presuppositional indefinites (e.g. subjects of individual-level predicates) can also take scope directly under negation in a downward-entailing environment.

- (17) a. **If a student of mine isn't Ukrainian**, I won't be able to get Ukrainian judgments.
#($\exists > \neg$): If there is a student of mine who is not Ukrainian, ...
($\neg > \exists$): *If no student of mine is Ukrainian, ...*
b. If a student of yours isn't short, nobody will be able to get the pen from where it rolled.
#($\exists > \neg$): If there is a student of yours who is not short, ...
($\neg > \exists$): *If no student of yours is short, ...*

This holds also for presuppositional indefinite objects:

- (18) **If my boyfriend doesn't know a high school friend of mine**, he won't come to the party.
#($\exists > \neg$): If there is a high school friend of mine my boyfriend doesn't know, ...
($\neg > \exists$): *If my boyfriend doesn't know any high school friends of mine, ...*

4.3 Property C: ✓ scope under non-clausemate negation

PPIs can take scope under non-clausemate negation:

- (19) a. I know that John didn't call Mary. In fact, **I don't think that John called someone.**
#($\exists > \neg$): There is somebody whom I don't think that John called.
($\neg > \exists$): *I don't think that John called anyone.*
- b. I didn't say John called Mary. In fact, **I didn't say that John called someone.**
#($\exists > \neg$): There is somebody who I didn't say that John called.
($\neg > \exists$): *I didn't say that John called anyone.*

The same is true for presuppositional indefinites, subjects (as in (20)) and objects (as in (21)):

- (20) a. It looks like I won't be able to get Ukrainian judgments – **I don't think that a student of mine is Ukrainian.**
#($\exists > \neg$): There is a student of mine who I don't think is Ukrainian.
($\neg > \exists$): *I don't think that any student of mine is Ukrainian.*
- b. Why do you think I have access to a Ukrainian speaker? **I didn't say that a student of mine is Ukrainian.**
#($\exists > \neg$): There is a student of mine who I didn't say is Ukrainian.
($\neg > \exists$): *I didn't say that any student of mine is Ukrainian.*
- (21) a. **I don't believe my boyfriend knows a high school friend of mine**, so I think he won't come to the party.
#($\exists > \neg$): There is a high school friend of mine whom I don't believe my boyfriend knows.
($\neg > \exists$): *I don't believe my boyfriend knows any high school friend of mine.*
- b. Why do you think my boyfriend will go to the party? **I didn't say my boyfriend knows a high school friend of mine.**
#($\exists > \neg$): There is a high school friend of mine who I didn't say my boyfriend knows.
($\neg > \exists$): *I didn't say my boyfriend knows any high school friend of mine.*

4.4 Property D: ✓ scope under clausemate negation with an intervening scopal element

An intervening scopal element allows PPIs to take scope under negation:

- (22) John didn't always call Mary. In fact, **he didn't always call someone.**
#($\exists > \neg > \text{always}$): There is somebody whom John didn't always call.
($\neg > \text{always} > \exists$): *Sometimes John didn't call anyone.*

An intervener similarly allows a presuppositional indefinite to take scope below negation:

- (23) In some semesters, I can't get Ukrainian judgments – **a student of mine isn't always Ukrainian.**
#($\exists > \neg > \text{always}$): There is a student of mine who is sometimes not Ukrainian.
($\neg > \text{always} > \exists$): *Sometimes (i.e. in some semesters) no student of mine is Ukrainian.*

The presuppositional reading for the object is prominent in example (24):

- (24) **#John doesn't like a professor of his**, so he has nobody to invite to the student-faculty dinner.
#($\exists > \neg$): There is a professor of John's whom John doesn't like.
 \times ($\neg > \exists$): *John doesn't like any of his professors.*

An intervener between negation and the indefinite prevents anti-licensing, just as it does for other PPIs:

- (25) John never changes his mind about people. Unfortunately, **John doesn't always like a professor of his.**
#($\exists > \neg > \text{always}$): There is a professor whom John doesn't always like.
($\neg > \text{always} > \exists$): *Sometimes (i.e. in some semesters), John doesn't like any of his professors.*

5 Some Earlier Approaches

- *Subject* indefinites are PPIs. (Spector 2004)
Theoretical Issue: Familiar PPIs behave like PPIs regardless of syntactic position. A new theory or new stipulations would be needed to allow PPI-hood to be position-dependent.
- *All* indefinites are PPIs. (Vanden Wyngaerd 1999)
Empirical Issue: Non-presuppositional indefinites easily take scope directly under negation. Vanden Wyngaerd (1999) suggests that negation in examples like (26) is “echo negation” (Seuren 1985), but this is unmotivated.

(26) **John doesn't have a guitar.**

#($\exists > \neg$): There is a guitar that John doesn't have.

($\neg > \exists$): *John has no guitar.*

- *Generalized Scope Economy Condition (GSEC)*: A covert scope-shifting operation cannot apply if the meaning of the resulting reading is equivalent to or stronger than (i.e. entails) the meaning that would have resulted without it. (Mayr and Spector (to appear))

Empirical Issue: GSEC wrongly predicts that the universal subjects in (27) should be unable to take scope under negation:

(27) a. We don't grade on a curve here. **Every student is allowed to get an A.**

#($\forall > \neg$): No individual student is prohibited from getting an A.

($\neg > \forall$): It is permitted for all students to get A's.

b. **Every child is allowed to jump at the same time.**

#($\forall > \neg$): (no binder for "at the same time")

($\neg > \forall$): It is permitted for all the children to jump at the same time.

GSEC also wrongly predicts that a downward-entailing environment should introduce the inverse scope reading in examples like (28b) (unless something else blocks said reading).

(28) Context: Everyone needs to watch at least one movie (from a list) to participate in the discussion.

a. **#John didn't watch every movie**, so he can't participate in the discussion.

#($\neg > \forall$): There were some movies John didn't watch.

\times ($\forall > \neg$): *John watched no movies. (inverse scope: stronger)*

b. **#If John didn't watch every movie**, he can't participate in the discussion.

#($\neg > \forall$): If there were some movies John didn't watch, ...

\times ($\forall > \neg$): *If John watched no movies, ... (inverse scope: weaker; not equal or stronger!)*

6 Conclusion

I have argued that:

- *Presuppositional indefinites* are Positive Polarity Items (PPIs): subject to the restriction in A.
- *Non-presuppositional indefinites* are not PPIs: not subject to the restriction in A.

I have done so by showing that presuppositional indefinites have the following PPI properties:

- \times scope directly under clausemate negation in a non-downward-entailing context**
- \checkmark scope directly under clausemate negation in a downward-entailing context** (Jespersen 1909-1949; Baker 1970)
- \checkmark scope under non-clausemate negation** (Ladusaw 1980)
- \checkmark scope under clausemate negation with an intervening scopal element** (Kroch 1979)

Non-presuppositional indefinites, on the other hand, do not share property A.

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