Toward a unified theory of indefinites

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WoSSP 19

27 September 2023

1 Outline

- We briefly review the two main approaches to the exceptional scope of indefinites:
  - Movement-based approaches
  - In-situ approaches
- We will discuss a novel scope paradox (Mirrazi, 2019, 2023):
  - Indefinites in the surface syntactic scope of negated intensional operators can yield a reading in which the indefinite appears to take wider scope over the negation, and narrow scope with respect to the intensional operator. We will call this construal "**wide pseudo-scope *de dicto* reading**". Genuine generalized quantifiers cannot yield such readings.
  - We see problems this scope paradox poses for movement-based theories of indefinites' scope, and show that in-situ approaches can straight-forwardly account for the existence of such wide pseudo-scope *de dicto* readings.
  - There's cross-linguistic variation in the availability of such readings. So, an ideal account should neither undergenerate nor overgenerate such readings.
- We discuss **Binder Roof Constraint**:
  - It poses serious problems for in-situ accounts of indefinites.
  - Cross-linguistic data show that not all indefinites are subject to this constraint. So, an ideal account should not completely rule out violations of this constraint from grammar.
- We lay out the desiderata for a unified theory of indefinites' exceptional scope.
- We explore a solution to Binder Roof Constraint & its violations (Mirrazi, 2021, to appear).

2 Theories of Indefinites' scope

- Indefinites have been shown to differ from generalized quantifiers in their scope-taking behavior.

(1) A colleague believes that every paper of mine contains an error.
'For ever paper of mine there is a potentially different colleague who believes that it contains an error.' ✗ every paper ≫ a colleague

- Indefinites, in contrast, can scope out of islands (Fodor & Sag, 1982), as shown in (2).

(2) Each teacher overheard the rumor that a student of mine had been called before the dean.
'There is a student of mine, say Mary, and each teacher overheard the rumor that Mary was called before the dean.'

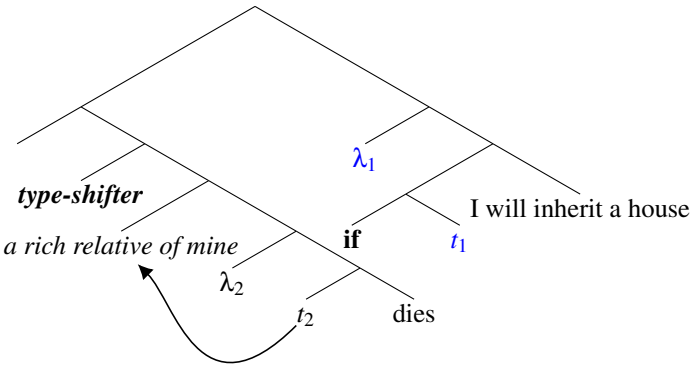
✓ a student ≫ each teacher

- This unique island-escaping behavior of indefinites led to approaches that take indefinites as inherently different from generalized quantifiers (Abusch, 1993; Reinhart, 1997; Winter, 1997; Brasoveanu & Farkas, 2011; Charlow, 2014, 2020)
- There are two main approaches within this group to explain the exceptional scope of indefinites:
  - Movement approaches: indefinites have access to special movement-based scope taking mechanisms, unavailable to generalized quantifiers (Charlow, 2014, 2020; Demirok, 2019)
  - In-situ approaches: Indefinites do not depend on syntactic movement in order to take scope (Reinhart, 1997; Winter, 1997; Kratzer, 1998; Brasoveanu & Farkas, 2011)

2.1 The movement approach (Charlow, 2014, 2020; Demirok, 2019)

- Recently, new movement-based accounts have been developed to derive the exceptional scope of indefinites out of island via a sequence of island obeying movements (a.k.a *pied-piping*), (Charlow, 2014, 2020; Demirok, 2019).
- This approach takes indefinites to be different from generalized quantifiers by treating them as alternative-generating expressions, in line with alternative semantic (Ramchand, 1997; Kratzer & Shimoyama, 2002, 2017) and inquisitive treatments of indefiniteness (Ciardelli et al., 2017).
- The innovation of this approach is that it relies only bona fide scope mechanisms to explain indefinite scope.
- The essential parts of these accounts are:
  - There is a scope position at the island edge to which the indefinite DP can move.
  - Subsequently, the island can be type-shifted into a scope taking expression, which itself moves to higher position in the structure.
- Under this approach, the structure of (3-a) would roughly be (3-b).

(3) a. If [a rich relative of mine dies], I'll inherit a house.
b.

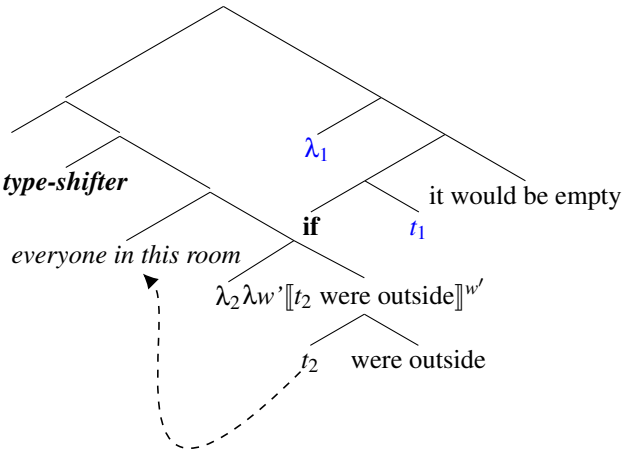


- Building on the system proposed by Charlow (2014), an intensionalized version of the system has also been developed by Demirok (2019) and Elliott (2023), which aims to explain the exceptional *de re* readings of quantificational DPs that cannot scope out of islands.
- For instance, (4) shows that while the quantifier *every* in (4) cannot scope out of the if-clause island, it can get a *de re* reading.
- The DP *everyone in this room* in (4-b) is construed *de re* relative to the intensional operator governing the conditional. As no one can be in this room and outside in the same world, the *de dicto* interpretation of *everyone in this room* creates a non-sensical reading.

(4) a. If [every rich relative of mine dies], Ill inherit a house. ∗**every**>**if**
b. If everyone in this room were outside, it would be empty.

- This system assumes a scope analysis of intensionality, according to which a DP embedded under an intensional operator can only get a *de re* construal if it moves to a position higher than the intensional operator in the structure (Keshet, 2008, 2010a,b; Charlow, 2014, 2020; Demirok, 2019; Elliott, 2023).
- The special pied-piping mechanism introduced in this system (Charlow, 2020; Demirok, 2019; Elliott, 2023) allow DPs to take exceptional *de re* interpretation, without violating island constraints.
- Unlike indefinites, quantificational DPs like *every* leave a higher order trace of type ⟨⟨e,t⟩,t⟩ behind, forcing it to semantically reconstruct into the syntactic position of the trace.
  - The syntactic position of the higher order trace marks the scope of quantifiers, capturing the fact that they cannot outscope an island.
  - The intensionality of quantifiers is determined by their final syntactic position with respect to the intensional operator.
- As a result, quantifiers can outscope an intensional operator, even when embedded in an island, to be construed *de re*, but their quantificational scope can never escape an island.

(5)



2.2 The in-situ approach

- The bare bone of in-situ approaches to the scope of indefinites is the idea that the existential quantification and the descriptive content of indefinites are syntactically separated.
- Under in-situ approaches, indefinites are taken to only contribute some kind of variable. The existential power of indefinites is then attributed to the freely available existential closure mechanism (Abusch, 1993; Reinhart, 1997; Winter, 1997; Jäger, 2007; Onea, 2015).
- A successful in-situ account of island-free scope of indefinites, within static semantics, takes an indefinite determiner to introduce a *choice function* variable that takes the restrictor of the indefinite as argument.(Reinhart, 1997; Winter, 1997; Kratzer, 1998; Matthewson, 1999; Steedman, 2012).

  (6) A *choice function* is a function that maps any non-empty set onto an element of that set.

- It is a function of type $\langle \langle e,t\rangle, e\rangle$, which applies to the property denoted by the nominal predicate of type $\langle e,t\rangle$ and returns an individual of type e that has that property.

  (7) f ({A,B,C,D,E }) = A

- Choice functional accounts of indefinites diverge when it comes to how this choice function variable takes its value.
  - According to Reinhart (1997) and Winter (1997), the choice function variable introduced by the indefinite can be bound by a **freely available existential closure**. Since the existential closure can appear at any level, this analysis predicts that an indefinite may have narrow, intermediate, or wide scope with no sensitivity to scope islands.
  - According to Kratzer (1998), choice functions are interpreted as **free variables**, with values to be provided by the context. To account for the intermediate and narrow scope of indefinites, she proposes to use *Skolemized choice functions*, which are choice functions with an additional individual argument.

    (8) a. f (x_1, {A,B,C,D,E }) = A
    b. f (x_2, {A,B,C,D,E }) = C

3 A scope Paradox

Context: Rodica knows that Carl has to read five books for his exam. She also knows that it takes 1 hour for Carl to read a book. She learns that Carl has started reading books 3 hours ago. Given Carl's speed in reading a book, Rodica believes that there are at least two books that he didn't have time to read but she doesn't know which books.

(9) Rodica fekr ne-mi-kon-ad ke Carl čand-ta/ye ketab ro xunde bash-ad.
Rodica thought NEG-IMPF-do-3SG that Carl some.PL-CL/some book RA studied SUB.be-3SG
"*Rodica doesn't think that Carl read some of the books.*"

think ≫ *some*≫ ¬

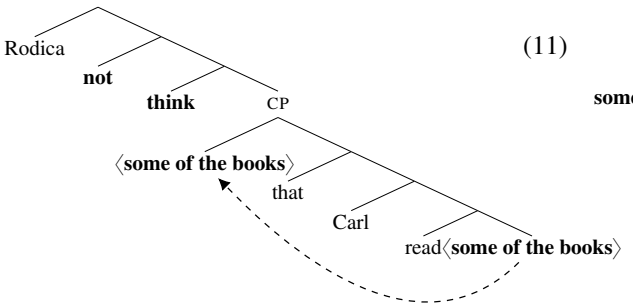
- In the intended reading of (9):

– the indefinite is interpreted **under the scope of intensional verb** *think* (*de dicto*), since there is no specific book(s) x such that Rodica has formed the belief that Carl didn't read x. To clarify this reading, the sentences can be continued with "*but she doesn't know which books*."

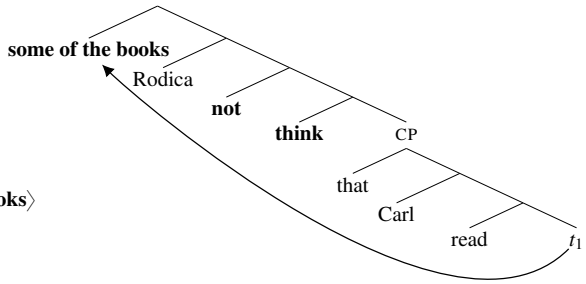
– the indefinite takes **wide scope over negation**. The low scope reading of the indefinite with respect to negation, which is equivalent to "Rodica thinks that it is not the case that Carl read any of the books", is clearly false in this scenario.

- Why is this a paradox
  - As shown in (10), both negation and *think* reside in the matrix clause, and the indefinite *some of the books* is syntactically below both of them.
  - Assuming the scope of an element is determined by its syntactic position, (9) is predicted to give rise to two readings, none of which is the intended reading.

(10)



(11)



- This reading isn't due to peculiarities of neg-raising predicates:
  - The wide pseudo-scope *de dicto* reading of indefinites can also be observed outside of neg-raising environments, where it is obvious that the negation is not base-generated in the embedded clause.

    Context: There are five questions on the exam. Each question has 10 points. To get the full points on the exam (30 points), students only need to answer three questions. Students can pick any three questions to answer. An examiner to students:

(12) a. lazem ni-st do-ta soal ro javab be-d-id
necessary NEG-be.3SG two-CL question RA answer SUBJ-give-2PL
You don't have to answer two of the questions.
b. False paraphrase in the scenario: *it's permissible to answer any number of questions which is not exactly two /more than two.*
✗ $\neg \gg \Box \gg$ *two questions* $\Longleftrightarrow \Diamond \gg \neg \gg$ *two of the questions*
c. Possible paraphrase: *It is allowed for two of the questions not to be answered.*
✓$\Diamond \gg$ *two of the questions* $\gg \neg$

  - Indefinites are unique in giving rise to such reading.

(13) a. lazem ni-st hame-ye soal-ha ro javab be-d-id
necessary NEG-be.3SG all-EZ question-PL RA answer SUBJ-give-2PL
You don't have to answer all of the questions.

b. Possible paraphrase: *it's permissible to not answer all of question.*
✓ $\neg \gg \Box \gg$ *all of the questions* $\Longleftrightarrow \Diamond \gg \neg \gg$ *all of the questions*
c. Impossible paraphrase: $*$*It is allowed for all questions not to be answered.*
$*\Diamond \gg$ *all of the questions* $\gg \neg$

- Note that the universal quantifier can't take scope above negation in neg-raising environment. This is further evidence that wide pseudo-scope *de dicto* readings of indefinites are not due to neg-raising.

(14) a. [Hame-ye bache-ha]$_F$ na-yam-ad-and.
all-EZ child-PL NEG-come-PST-3.PL
All of the children didn't come. *all of the children* $\gg \neg$
b. fekr na-konam [hame-ye bache-ha]$_F$ oumade baš-and.
think NEG-do-1SG all-EZ child-PL come-PP SUB-be-3.PL
I don't think all of the children came. $*$*think*$\gg$ *all of the children* $\gg \neg$

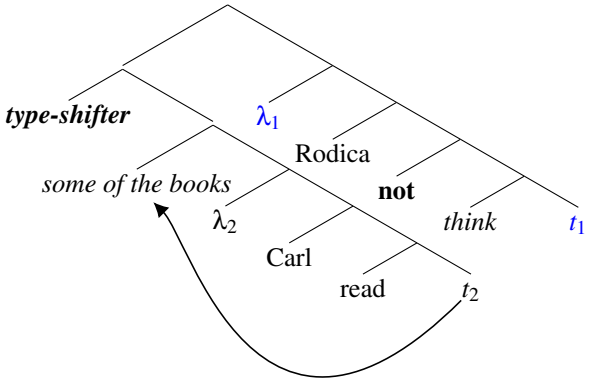
3.1 An under-generation problem for movement approaches

- The existence of wide pseudo-scope *de dicto* readings of indefinites creates a serious problem for this approach.
- To get the intended reading, the indefinite has to move to a position higher than negation in the matrix clause, and yet under the intensional verb *think* in order to be interpreted *de dicto*.

(15) Rodica doesn't think that Carl read some of the books.

- There are only two licit movement options:
  - moving the indefinite to the edge of the embedded clause, but this position is not above negation.
  - shifting the embedded clause to a scope taking object and then moving it to a higher position. This movement puts the indefinite above negation, but as the indefinite now outscopes the intensional operator, it cannot be interpreted *de dicto* anymore.

(16)



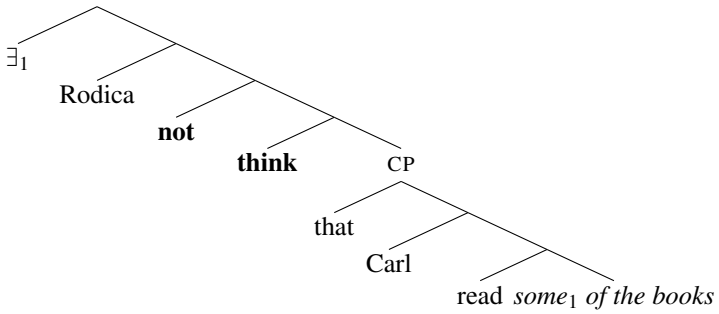
- In a system that takes the syntactic position of indefinites to determine their quantificational scope, the observed reading of (15) constructs a case of wide scope *de dicto* reading (a.k.a. *the fourth reading*)

- The fourth reading refers to construals in which the determiner of a DP scopes above an intensional operator, while its restrictor is interpreted below the scope of the intensional operator. This fourth reading is deliberately excluded by the main theories of intensionality (Percus, 2000; von Fintel & Heim, 2011; Keshet & Schwarz, 2019; Elliott, 2023).
- As we saw in (5), *de re* construal of DPs does not necessarily come with wide quantificational scope. However, wide quantificational scope necessarily comes with a *de re* interpretation, as the intensionality of a DP is still determined by its final syntactic position with respect to an intensional operator.
- According to all major theories of intensionality, a DP can only get a *de dicto* reading when it is under the scope of an intensional operator. If a DP moves in order to take wide scope with respect to the intensional operator, it can no longer be construed *de dicto*.

3.2 An over-generation problem for in-situ approaches

- Although it has remained unnoticed, in-situ accounts that separate existential quantification and the descriptive content of indefinites predict that indefinites can have wide pseudo-scope *de dicto* readings.

(17)



- Indefinite expressions in ?English, German, and French don't have such readings, despite having exceptional wide scope.

- An ideal account should neither undergenerate nor overgenerate.
- Can we find a unified semantics and/or scope mechanism for indefinite expressions that can both generate these readings and account for the observed cross-linguistic variation?

4 More over-generation problems for in-situ approaches

- In-situ accounts posit no limitation on the exceptional upward scope of indefinites. As observed by Abusch (1993), and extensively discussed in Chierchia (2001); Schwarz (2001) and Schwarz (2011), this account overgenerates unattested readings.

(18) **Binder Roof constraint**
An indefinite cannot scope over a quantifier that binds into its restrictor. (Brasoveanu & Farkas, 2011)

Context: Sue wrote two papers SP={S_1,S_2} but only submitted S_1, and Mary wrote two papers MP={M_1,M_2} but only submitted M_2.

(19) a. No candidate$_1$ submitted *a* paper they$_1$ had written.
b. $(\exists)f$[No candidate$_1$ λ_1[t_1 submitted f [paper they$_1$ had written.]]]

- This LF conveys that there's a way of choosing among papers that each candidate wrote such that no candidate submitted whatever paper is selected by f for them.
- As we can find such a function, namely a function that picks S_2 for Sue, and M_1 for Mary, the choice function account predicts that the sentence (19-a) should be judged true in this scenario, contrary to the fact.
- The sentence in (19-a) only means that for no candidate there is a paper they wrote that they submitted.
- Given the unavailability of this construal, there have been several attempts, both within in-situ and movement theories of indefinites, to rule out such readings (Brasoveanu & Farkas, 2011; Onea, 2015; Charlow, 2020).
- The problem with such accounts is that they are often too successful in doing so.
- There are indefinite expressions that are not subject to the Binder Roof Constraint.

  (20) No candidate$_1$ submitted *a certain* paper they$_1$ had written.

- The cross-linguistic studies on the scopal properties of indefinites have revealed that the constraint doesn't hold.
- Renans (2018) and Dawson (2020) show that indefinites in Ga and Tiwa pattern with English *a certain* indefinites in their ability to giving rise to the wide scope reading in downward-entailing contexts.
- Farsi indefinites present another case where the Binder Roof constraint doesn't hold.

  (21) hič danešjuy-i ye mašq-eš ro tahvil na-dade ast.
  any student-INDF some assignment-their RA submit NEG-give.PP AUX.3SG
  No student submitted a certain/an assignment of theirs.

- This also shows that despite the fact that wide pseudo-scope *de dicto* readings are easily available to Farsi indefinites, in-situ accounts that easily generate such readings but rule out violations of the binder roof constraint (Jäger, 2007; Onea, 2015) are not viable accounts for Farsi indefinites.

- There are two kinds of indefinite expressions:
  - Indefinites that are subject to Binder Roof Constraint (*a*-type indefinites)
  - Indefinites that are not subject to Binder Roof Constraint (*a certain*-type indefinites)
- Crucially, despite the difference in obeying the Binder Roof Constraint, both kinds of indefinites share the exceptional scope taking property.
- Accounts that completely rule out violations of the Binder Roof Constraint undergenerate attested readings of a well-attested group of indefinites.
- **Desiderata for a unified theory of indefinites:**

- A successful theory of indefinites should ideally give a unified account of their exceptional scope.
- It should derive (or be at least compatible with) the differences between the two types of indefinites (Chierchia, 2005).

5 A solution to Binder Roof Constraint

- My goal is to provide a unified account of indefinites that can in principle generate wide scope readings over an operator that binds into the indefinite's restrictor, while also explaining the unavailability of such readings in certain environments.

Main claims:

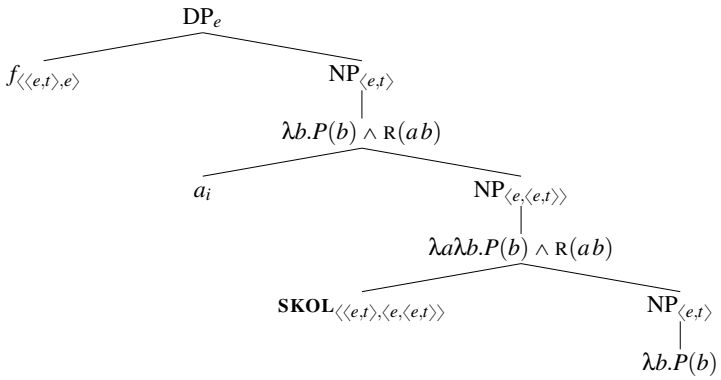
- I argue for **a unified in-situ mechanism** in terms of choice functions for both kinds of exceptional scope taking indefinites.
- I propose a new formalization of Skolemization that separates the functional dependency between DPs from the semantics of indefinite determiners.
- Functional interpretations arise when sentences containing an indefinite have functional witnesses (Solomon, 2011).
- "This is the semantic content of Skolemization that is lost in on Skolemized choice function approach" (Solomon, 2011), and that has been integrated back into the semantics of Skolemization in my proposal.
  - **The indefinite determiner has a uniform semantic contribution.**
  - **Functional dependencies are built in NP level.**
- The difference between the two kinds of indefinites wrt the Binder Roof Constraint is reduced to the **(un)availability of Presupposition Accommodation** in resolving the referent of the functional variable introduced by Skolemization.

- Indefinite determiners denote variables over choice functions (**type rigid** $\langle\langle e,t\rangle,e\rangle$) which is existentially closed in the topmost level of the derivation (Matthewson, 1999).
- The dependency between a DP and a higher quantifier is built in the NP level via type-shifting.
- I introduce a type-shifter, which I call SKOL, that builds such a functional dependency by shifting a $\langle e,t\rangle$-type noun to an $\langle e,\langle e,t\rangle\rangle$-type noun. SKOL introduces:
  - a free **functional variable** R whose referent is contextually determined (à la Kratzer (2003)'s contextualist account) .
  - an **individual variable** a_i, which has to be bound by a higher quantifier in the structure.

(22) **SKOL** $P = \lambda a \in A\ .\ \lambda b \in \beta.\ [\ P(b) \wedge R(a,b)]$, where R is a function.

- The choice function f denoted by the indefinite determiner takes this function as argument, and chooses a unique witness for every value of the variable a:

(23)



- This has the effect of narrowing the NP restrictor of the choice function to only those elements in the extension of the NP $b \in \beta$ that have been mapped to a unique $a \in A$.
- The result is **a choice function over a singleton set** (See also (Schwarzschild, 2002)).

- **How does the free functional variable take its value?**

- Like other referential pronouns, it requires a context that provides a salient function R about which the common ground entails that R outputs a unique value for every given individual variable within its domain. Let us call this requirement *salience presupposition*.
- The value of the individual variable is determined by the domain of a higher quantifier that binds this variable.
- Salience implies *existence*. That is, the free functional variable presupposes that there is a discourse referent with which it can be identified.

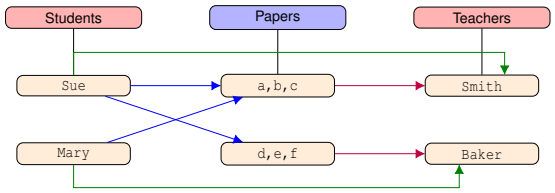
- **What counts as a salient referent for the functional variable?**

- It appears that the salience of a suitable referent for the functional variable R is highly sensitive to the **linguistic information** directly given by the sentence in which the indefinite appears.
  - by virtue of the **composition of existing salient relations** in the linguistic context of utterance

(24) Every student read every book praised by some teacher.
∀x [Student(**x**) → ∀y [book (y) ∧ **praised-by**$_2$ (y, f(R(**x**, teacher))) → **read**$_1$(**x**, y)]]
R(x,teacher) ⊆ praised-by(y, teacher) ∘ read(x,y)

  - by being **lexically specified**

(25) Every student$_i$ read every book some teacher they$_i$ like had praised.



- It has been argued that referential pronouns, and by extension free variables, impose a **Strong Contextual Felicity** (SFC) constraint , which is the requirement that the trigger can be used felicitously only if the implication associated with the trigger is established in the utterance context (Tonhauser et al. 2013; Beaver & von Fintel 2013, and King 2018, among others). **SFC constraints cannot be easily accommodated**.
- We will see that the new formalization of Skolemization, together with the SFC requirement on the referent of R and the unavailability of accommodation thereof, derives the Binder Roof Constraint in DE contexts.

- **Why is violation of the Binder Roof Constraint allowed in case of *a certain-type* indefinites?**

- *"As **Presupposition Accommodation** depends on the hearers trusting that the speaker knows whereof she is speaking*"(von Fintel, 2008), the accommodation strategy is expected to be available with epistemically specific indefinites which signal **speaker's knowledge**.
- In English, the presence of the NP modifier "*certain*" which overtly signals speaker's commitment makes accommodation possible.
- **Prediction:** Epistemically specific indefinites are not subject to Binder Roof Constraint.

6 Deriving the Binder Roof Constraint & Its Violations

- **BRC arises when there is a dependency between the indefinite DP and a higher quantifier but there is no suitable referent for the functional variable *R*, and Accommodation is not allowed**.

- Let's consider (26) in the previous context, ignoring 'like' relation for now.

  (26) $\exists f$[Not every student$_1$ λ_1[t$_1$ read every book **some** teacher they$_1$ had praised]].

- Computing R(x,teacher) from the composition of the existing relations in the linguistic context (praised-by & read), there are two candidates to serve as a referent of R:
  - R_1=$\{\langle Sue, Smith\rangle, \langle Mary, Smith\rangle\}$
  - R_2=$\{\langle Sue, Baker\rangle, \langle Mary, Smith\rangle\}$
- None of these options verifies (26) → it is correctly predicted to be false.
- Note that a Skolemized CF that f can randomly pick among students and teachers (f'=$\langle Mary, Baker\rangle$) wrongly verifies (26) (Schwarz, 2001).

- Lexically specifying a function is correctly predicted to render a wide scope functional reading:

  (27) Not every student$_i$ read every book **some** teacher they$_i$ like had praised.

- The sentence containing *a certain*-type indefinite (28) is predicted to be true, as R can be easily accommodated.

  (28) Not every student read every book *a certain* teacher had praised.

- Now let's consider (19-b) again.

  (29) $\exists f$[No candidate$_1$ λ_1[t$_1$ submitted a$_{f_1}$ [paper they$_1$ had written.]]]

- The *write*-relation between students and one of their papers is not a function.
- Under a functional interpretation of *write*, the candidates are mapped to the plural entity consisting of papers they wrote, R={$\langle Sue, S_1 \oplus S_2\rangle$,$\langle Mary, M_1 \oplus M_2\rangle$}
- (29) is not verified in the given context → it is correctly predicted to be false.
- Again, lexically specifying a function renders a wide scope functional reading:
  Assume Sue and Mary disliked the papers that they didn't submit. (30-a) is judged true, as predicted.

  (30) a. No candidate$_1$ submitted **a** paper they$_1$ wrote but disliked.
  b. $\exists f$[No candidate(**x**) λ_1[t$_1$ submitted f [λz.paper(z)$\wedge$R(**x**, z)$\wedge$write(**x**, z)$\wedge$dislike(**x**, z)]]]

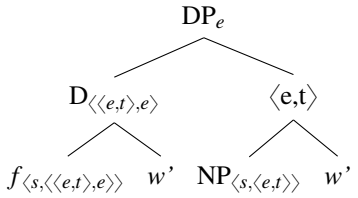
- The sentence containing *a certain*-type indefinite (20) is predicted to be true, as R can be easily accommodated.

- **Cross-linguistic Predictions**[1]
  - Since this proposal makes a link between the availability of accommodation strategy and the assertion of speaker's knowledge, it predicts that epistemically specific indefinites are not subject to the Binder Roof Constraint (See also Dawson (2020) and Bossi (2023)).
  - Katzir & Singh (2013) observe that ignorance inferences block presupposition accommodation. They explain that this is because the accommodation suggests that the speaker believes this proposition, a suggestion that conflicts with the ignorance inference.
  - As the accommodation is necessary for unrestricted wide scope readings of indefinites with no sensitivity to the Binder Roof Constraint, we expect indefinite determiners that *semantically* encode ignorance to be subject to the Binder Roof Constraint.
  - More cross-linguistic research that systematically studies scopal and epistemic properties of indefinites is needed to determine the the validity of this typological prediction.

7 Deriving wide pseudo-scope *de dicto* readings

- I follow Schwarz's 2012 proposal that determiners can introduce a world variable (a situation variable in his system).

- I propose that a choice function introduced by an indefinite determiner can be of type $\langle s,\langle\langle e,t\rangle,e\rangle\rangle$. They take world variables as their first argument, then they apply on a set of type $\langle$e,t$\rangle$, and return an individual of type *e*.



- This amounts to skolemiziation with world variable.
- Following a suggestion by Schwarz (2012), I take the world argument of NP to be obligatorily bound locally, thus it is always evaluated relative to the same world as its determiner.
- This yield two possible configurations:

  i When the world variables of the choice function's and the NP's are set to the actual world, we will have $f(w_0$, (NP (w_0))). The world argument is constant and the effect will be as if there is no skolemization, f(NP).

  ii When the world variables of the choice function's and the NP's are bound by an intensional operator, we will have $f(w'$, (NP (w'))).

  (31) a. f (w_1, {A,B,C,D,E }) = A
  b. f (w_2, {A,B,C,D,E }) = C
  c. f (w_3, {A,B,C,D,E }) = E

- **How can we account for the cross-linguistic variation in the availability of wide pseudo-scope *de dicto* readings?**

- Schwarz notes that determiners can vary with respect to whether or not they combine with such a world/situation pronoun.
- This also opens up a locus of variation across languages. A choice functional determiner may be able to combine with a world pronoun in one language like Farsi, and not in another one, like German or French.
- As for English, Schwarz (2012) proposes that it can be assumed that there are two variants of the indefinite determiner *some*: one that takes a situation pronoun argument, and one that does not.
- It can be argued that the grammar of English speakers for whom the reported readings are impossible, only has indefinite determiners that lack a situation variable. Others might have both versions in their grammar, but show a preference for one of them.

8 Concluding remarks

- The challenge for all accounts of indefinite scope is to derive the variation among different kinds of indefinites within and across languages.

- The movement-based approach fails to generate wide pseudo-scope *de dicto* readings of indefinites. This provides compelling evidence that even with pied-piping in its toolbox, grammar still needs in-situ 'scope' mechanisms, contra Demirok (2019).
- Violations of Binder Roof Contraint should not be completely ruled out from grammar.
- Despite the claims to the contrary, choice functions remain a successful tool to model the exceptional scope of indefinites.

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