

A note on reflexive ECM subjects

Winfried Lechner
*National and Kapodistrian University
of Athens*

1 Introduction

In an influential contribution, [Johnson \(1991\)](#) championed the view that what was in those days called VP is sister to a silent function head μ in the specifier of which objects are assigned Case subsequent to overt raising. This idea was further developed by [Kratzer \(1996\)](#) into the by now widely adopted little- ν P/VoiceP hypothesis. In this squib, I would like to propose an analysis for an interpretive contrast unearthed in [Moulton 2005, 2008](#) which crucially relies on Johnson's original insight that certain arguments raise to positions above VP in course of the syntactic derivation.¹

In [Lechner 2012](#) I argued that the core properties of Condition A fall out from two natural assumptions. First, the reflexivizer *self* is assigned a lexical meaning and modeled as a function over two-place relations ([Bach & Partee 1980](#), [Keenan 1987/1989](#), [Szabolcsi 1987](#) amongst others). In the concrete implementation (1), *self* combines with one of its two individual arguments first before applying to this binary relation. Moreover, the meaning contribution of *self* is located in the presupposition, which introduces an identity requirement on its two individual arguments ([Sauerland 2013](#), [McKillen 2016](#), [Spathas 2017](#), amongst others).²

$$(1) \quad \llbracket self \rrbracket = \lambda x_e. \lambda R_{\langle e, \langle e, t \rangle \rangle}. \lambda y_e. R(x)(y) : x = y \quad (\text{To be revised})$$

While (1) can be directly combined with lexical predicates that denote binary relations (*Alice saw herself*), the analysis does not extend to cases in which the reflexive is bound by an object:

1 Billy Wilder famously had a sign on his wall that asked *What would Lubitsch have done?* My incarnation of this sign reads *How would Kyle have done it?* There are very few things that I did not learn from you, Kyle, as a teacher, linguist, writer of impeccable scientific prose and friend. (How to become a decent dresser might be among them, alas!)

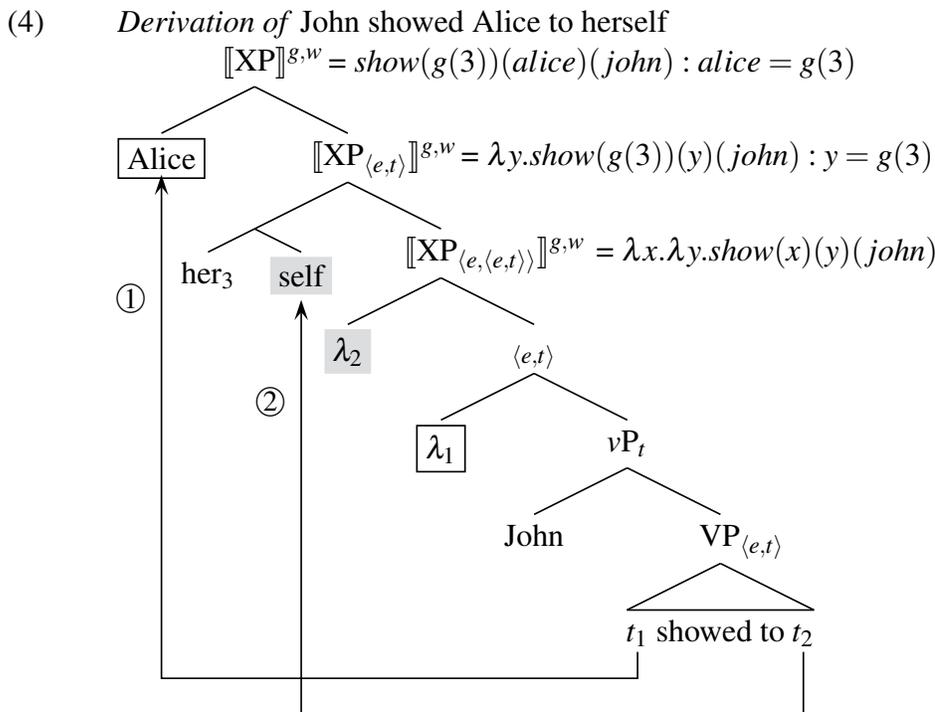
2 The definition (1) diverges from Sauerland's in that *self* applies to one of its individual arguments first. This makes it possible to avoid vacuous pronoun movement, as in [Sauerland 2013](#). In [Lechner 2012](#), *self* was treated as an arity reducer ($\llbracket self \rrbracket = \lambda R_{\langle e, \langle e, t \rangle \rangle}. \lambda x_e. R(x)(x)$). Although nothing bears on the particular choice for present purposes, the presuppositional account affords additional analytical options that are useful in the analysis of strict reflexives ([Sauerland 2013](#), [McKillen 2016](#); see also below).

- (2) a. John showed Alice (to) herself (in the mirror).
- b. LF: John Alice [showed_{<e,<e,<e,t>>} (to) herself] (✗ Type mismatch)

Compositional integration of the reflexive in (2) is guaranteed by the second assumption, though. At LF, the antecedent α raises (3a), followed by movement of *self* in between α and λ_1 , the λ -binder of α (3b), resulting in a configuration of *Parasitic Scope* (Barker 2007, Sauerland 1998, Nissenbaum 1998, Bhatt & Takahashi 2011, Kennedy 2009, Lechner 2012, 2016, amongst others).

- (3) a. $[\alpha \dots \text{pron-self}_{\langle\langle e, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle}]$
- b. $[\boxed{\alpha} \dots [_{\langle e, t \rangle} \boxed{\lambda_1} \dots [t_{1,e} \dots \text{pron-self}_{\langle\langle e, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle}]]]$
- c. $[\boxed{\alpha} [\text{pron-self}_{\langle\langle e, \langle e, t \rangle \rangle, \langle e, t \rangle \rangle} [_{\langle e, \langle e, t \rangle} \lambda_2 [_{\langle e, t \rangle} \boxed{\lambda_1} \dots [t_{1,e} \dots t_{2,e}]]]]]]$

(4) demonstrates that this setup derives the correct meaning for object oriented anaphors (for concreteness, suppose that *Alice* and *herself* are attracted by a higher functional head; subject movement and the preposition are not represented):



Since on this view, reflexivization implicates two dislocation operations, one is led to expect that the movements need to satisfy the principles of natural language syntax, in particular the general requirement that attraction by a single head proceeds in such a way that higher elements are moved first (Richards 2001 and

references).³ This ordering condition offers a straightforward explanation for why the antecedent needs to c-command the anaphor. While the sequencing in (5) produces an interpretable parasitic scope constellation, the derivation violates syntactic locality, since the lower element (*pron-self*) moves first. By contrast, the alternative parse (6) is syntactically well-formed but is filtered out as a type mismatch: *pron-self* fails to find in its local neighborhood the two-place relation it wants to combine with.

- (5) *Heself/himself saw John. (✗ Syntax/ ✓ Semantics)
 a. [John] [_(e,t) λ₁ ... [VP self [VP saw t₁]]]
 b. [John] [*pron-self*_{<(e,(e,t)),(e,t)>} [_(e,t) λ₂ [_(e,t) λ₁ ... [VP t₂ [VP saw t₁]]]]]
- (6) *Heself/himself saw John. (✓ Syntax/ ✗ Semantics)
 a. [*pron-self*_{<(e,(e,t)),(e,t)>} [_(e,t) λ₂ ... [VP t₂ [VP saw John]]]]
 b. [John] [λ₁ [*pron-self*_{<(e,(e,t)),(e,t)>} ✗ [_(e,t) λ₂ ... [VP t₂ [VP saw t₁]]]]]

Thus, Condition A can be reduced to the interaction of two components: a transparent semantics for reflexives and a derivation generating parasitic scope configurations that is subject to the general syntactic laws regulating the order and landing site of multiple movements.⁴

2 Reflexive ECM subjects

The present section extends the relational analysis of *self* to contexts in which the reflexive serves as the subject of an ECM-complement. The more specific objective consists in delineating a plausible account for a finding chronicled in Moulton 2005.

It has been known at least since Bresnan 1972: 149ff that ECM predicates fall into two discrete classes. A number of diagnostics, some of which are illustrated in (7), indicate that accusative subjects of B-class verbs, exemplified by *believe*, *consider*, *prove*, *deny* and *suppose*, behave as if being part of the superordinate clause, whereas ECM-subjects of W-class predicates, among them *want*, *prefer*, *desire*, *need* and *expect*,⁵ are located within their own minimal clause.⁶

³ The operations are counter-cyclic. For a re-analysis that abides by the Strict Cycle see Lechner 2012.

⁴ Further evidence from phrasal comparatives can be found in Lechner 2016.

⁵ The verb *expect* has been claimed to be ambiguous (Bresnan 1972: 162pp, Pesetsky 1992: 29). I will ignore this additional complication here.

⁶ Another sign for raising is the ability of ECM subjects to license anaphors in the higher clause. Whether this property is in fact absent in W-class verbs, as predicted, has to my knowledge, not been tested yet.

- (i) The DA [[believed *the defendants*₁ to be guilty] during *each other*₁'s trials].

- (7) *B-class: subject to object raising*
- a. We believe John to win (*during the next race).
(Simultaneity requirement)
 - b. John was believed to have won. (Passive)
 - c. *John believes to have won. (No obligatory control)
- (8) *W-class: no subject to object raising*
- a. Mary wants John to win (during the next race)
(No simultaneity requirement)
 - b. *John was wanted to (have) won. (No passive)
 - c. John wanted PRO to win. (Obligatory control)

Following a longstanding tradition, it will be assumed that these structural differences correspond to differences in the evolution of the representations underlying these two classes of constructions. Specifically, suppose that ECM subjects of B-class predicates overtly raise into a Case position of the higher clause (SpecvP; Lasnik 1999), possibly by Overt Covert Movement (Nissenbaum 2000) and that such an operation is absent from derivations that involve W-class verbs.

Moulton (2005) adds a further observation to this catalogue: Only reflexive ECM-subjects of W-class predicates admit *de re* interpretations.

- (9) *W-class: de re reflexives*
- a. John wanted *himself* to win. *de se/de re*
 - b. John wanted *himself* to win. (Chierchia 1989: (26c)) *de se/de re*
- (10) *B-class: no de re reflexives*
- a. John believed *himself* to win. (Chierchia 1989: (26b)) *de se/*de re*
 - b. John considered *himself* to be the winner. *de se/*de re*

In (9a), for example, John either self-ascribes the property of winning (*de se*) or he expresses the desire for some individual John to succeed, who, unbeknownst to him, is in actuality John himself (*de re*). (10a) lacks such a *de re* interpretation, which typically arises in situations of ‘mistaken identity’, where the attitude holder is unaware of her/his being identical to the *res* nominal. A more precise formal rendering of the two readings has to await Section 3. For the moment, suffice it to say that *de re* reflexives impose a weaker condition on the reflexive relation between the attitude holder John on the one side and his counterparts in John’s bouletic, doxastic or expectation alternatives on the other side. This has the desirable consequence that *de re* readings are empirically detectable, for instance by designing suitable models of ‘mistaken identity’ which satisfy the *de re* truth conditions only.

In what follows, I will provide a further criterion that might aid in distinguishing between these two readings, proceeding from there to some thoughts as to how the contrast can be correlated to independent properties of the two verb classes (Section 3).

The judgements pertaining the contrast (9) vs. (10) are not as strong as one might wish (Keir Moulton, p.c.). A potentially useful tool for strengthening one's intuitions comes from a variation on Russell sentences. (11) is ambiguous between a contradictory reading, on which the speaker ascribes to Ann the belief that Ben's height exceeds Ben's height, and a consistent interpretation on which Ben is in fact shorter than Ann believes him to be. This ambiguity is usually attributed to two different binding options for the underlined world/situation variable relative to which the degree predicate *tall* is evaluated (von Stechow 1984). Co-binding of the world/situation variables results in the contradictory proposition (11b), whereas interpreting the second occurrence of *tall* with respect to the evaluation world renders the meaning compatible with consistent models ((11); $Dox_{x,w}$ is the set of doxastic alternatives for x in w .):

- (11) Ann believes that Ben is taller than he₃ is. ($g(3) = \text{Ben}$)
- a. LF: $\lambda w[\text{Ann believes } \lambda w'[\text{that Ben is taller } w' \text{ than he}_3 \text{ is } \langle \text{tall } \underline{w'/w} \rangle]]$
 - b. *Contradictory belief (second occurrence of 'tall' opaque/de dicto)*
 $\lambda w.\forall w' [w' \in Dox_{a,w} \rightarrow \iota d.\text{Ben is } d\text{-tall in } w' \succ \iota d.\text{Ben is } d\text{-tall in } \underline{w'}]$
 - c. *Consistent belief (second occurrence of 'tall' transparent/de re)*
 $\lambda w.\forall w' [w' \in Dox_{a,w} \rightarrow \iota d.\text{Ben is } d\text{-tall in } w' \succ \iota d.\text{Ben is } d\text{-tall in } \underline{w}]$

Furthermore, substituting the ECM subject by a reflexive remnant in phrasal comparatives bleeds the consistent reading (12c) (Hellan 1981, Napoli 1983, Heim 1985, among others):

- (12) Ann believes that Ben is taller than himself.
- a. LF: $\lambda w[\text{Ann believes } \lambda w'[\text{that Ben is taller } w' \text{ than himself } \langle \text{tall } \underline{w'/w} \rangle]]$
 - b. *Contradictory belief* (✓ Ellipsis parallelism)
 $\lambda w.\forall w' [w' \in Dox_{a,w} \rightarrow \text{Ben}(\lambda x[\iota d.x \text{ is } d\text{-tall in } w' \succ \iota d.x \text{ is } d\text{-tall in } \underline{w'}])]$
 - c. *Unattested consistent belief* (✗ Ellipsis parallelism)
 $\lambda w.\forall w' [w' \in Dox_{a,w} \rightarrow \text{Ben}(\lambda x[\iota d.x \text{ is } d\text{-tall in } w' \succ \iota d.x \text{ is } d\text{-tall in } \underline{w}])]$

Heim (1985) suggests that the absence of the transparent interpretation (12c) follows from standard mechanisms of ellipsis parallelism, which require the two underlined world variables to be co-bound.⁷ Since consistency is contingent upon the

⁷ This holds regardless of whether the ellipsis in phrasal comparatives is syntactic or semantic, as (Heim 1985) demonstrates.

two asymmetrically ordered degree descriptions to embed two different propositions, co-binding invariably leads to inconsistency.

But there is another strategy for generating consistent readings. Suppose that the locus of variation between the two propositions is not the index of *tall*, but in the interpretation of the subject. Such configurations are supplied by the paradigm (13), which is identical to (12) except that the ECM-subject is occupied by a second reflexive:

- (13) *W-class: consistent reading possible*
- a. Ben wants *himself* to be taller than himself. *de se/de re*
 - b. Ben would prefer *himself* to be taller than himself. *de se/de re*
 - c. Ben had expected *himself* to score better than himself. *de se/de re*

Recall at this point that reflexive ECM-subjects of W-class verbs are ambiguous between a *de re* and a *de se* interpretation. Provided that reflexive remnants of phrasal comparatives have to be read *de se*, a conclusion which is inescapable given (12), the embedded proposition is expected to express a consistent belief only if the ECM-subject can be assigned a *de re* interpretation. Even though judgments are subtle, such a reading of (13) exists for many of my consultants. Conversely, if the matrix predicate disallows reflexive *de re* subjects, as is the case with B-class predicates, the target interpretation should disappear. (14) documents that this appears to be correct:⁸

- (14) *B-class: inconsistent reading only*
- a. Ben believes *himself* to be taller than himself. *de se/*de re*
 - b. Ben considers *himself* to be smarter than himself. *de se/*de re*

The relevant details underlying the contrast are made explicit in (15):

- (15) a. Ben wants *himself*_{*de re*} to be taller than *himself*_{*de se*}
(W-class: consistent)
- b. Ben believes *himself*_{*de se*} to be taller than *himself*_{*de se*}
(B-class: inconsistent)

To recapitulate, consistency in certain Russell sentences can either be achieved by contra-indexing the world/situation variables of the predicates or variation in the interpretation of the subjects. Crucially for present concerns, if the judgments

⁸ The control version of *want* is predicted to lack a consistent reading, too, because PRO is always interpreted *de se*. Again, judgments are subtle but seem to point in the right direction:

- (i) Ben wanted PRO to be taller than himself. *de se/*de re*

reported here turn out to be representative, they furnish support for Moulton’s conjecture that W-class verbs can only combine with *de re* subject reflexives.

A remark is in order regarding representation (15). It has been noted on the basis of examples like (16) that *de se* reflexives cannot be long distance bound across c-commanding *de re* subjects (*‘de re’* blocking effect; Heim 1994, Percus & Sauerland 2003, Anand 2006, Sharvit 2011, among others). But then, the *de re–de se* constellation (15a) should be blocked for the same reasons that (16a) is:

- (16) Palin promised McCain PRO to vote for herself (Sharvit 2011)
- a. PRO_{*de re*} ... herself_{*de se*}
 - b. PRO_{*de se*} ... herself_{*de re*}

Notice, however, that there is an important difference between comparatives and the simple embedding in (16). All extant analyses of phrasal comparatives require a re-ordering of the constituents (usually at LF) which places the degree complement above the base position of the subject. Given that the *de re* blocking effect is structure sensitive (Anand 2006), the problem disappears because the LF representation of (15b) is now as shown in (17), where *himself_{de re}* no longer c-commands *himself_{de se}*:

- (17) Ben wanted [[MORE than himself_{*de se*}] [λ_3 [himself_{*de re*} to be *d*₃-tall]]]
- (*Ben wanted himself to be taller than himself*)

In sum, comparatives provide a useful tool for assessing interpretive properties of ECM-reflexives as they introduce an additional testable variable (consistency) into the judgment task.

3 Toward and analysis

This final section sketches the first steps toward a possible analysis of the paradigms in (9) and (10), relevant parts of which are repeated below as (18):

- (18) a. John expected himself to win. *de se/de re* (W-class)
- b. John believed himself to win. *de se/*de re* (B-class)

The specific goal consists in defining an algorithm that blocks *de re* readings for reflexive B-class ECM subjects.

I follow Moulton (2005) in assuming that reflexivity comes in two flavors, a strong and a weak variant. A relation is *strongly reflexive* if it is necessarily reflex-

ivity, i.e. if it holds across worlds, and it is weak otherwise. Two corresponding lexical entries for the presuppositional version of *self* are given in (19):⁹

(19) *Presuppositional reflexives*

- a. $\llbracket self_{strong} \rrbracket = \lambda x_e. \lambda R_{\langle e, \langle e, \langle s, t \rangle \rangle \rangle}. \lambda y_e. \lambda w_s. R(x)(y)(w) : \forall w R(x)(y)(w) \rightarrow x = y \text{ in } w$
- b. $\llbracket self_{weak} \rrbracket = \lambda x_e. \lambda w_s. \lambda R_{\langle e, \langle e, t \rangle \rangle}. \lambda y_e. R(x)(y) : x = y \text{ in } w$

(19a) presupposes that the relation *self_{strong}* applies to is reflexive independently of the choice of model and assignment, while for (19b), it is sufficient for the relation to be reflexive in the evaluation world. Also in line with Moulton, the strong variant of self will be assumed to produce *de se* readings, while the weak version yields *de re* interpretations.¹⁰

Once they have combined with their outer arguments, both variants of *self* select for binary relations and accordingly need to move, as suggested in Section 1, establishing a configuration of parasitic scope. What is of particular significance for the present proposal is that the two exponents impose different type requirements on their sister nodes. *Pron-self_{strong}* needs an $\langle e, \langle e, \langle s, t \rangle \rangle \rangle$ -type expression as input, while *pron-self_{weak}* combines with a binary relation between individuals ($\langle e, \langle e, t \rangle \rangle$) once it has applied to its world/situation variable. This structurally disambiguates the admissible contexts for weakly and strongly reflexive *pron-self* as shown below:

- (20) a. *pron-self_{strong}* can be used only if its sister node is of type $\langle e, \langle e, \langle s, t \rangle \rangle \rangle$
 b. *w-pron-self_{weak}* can be used only if its sister node is of type $\langle e, \langle e, t \rangle \rangle$

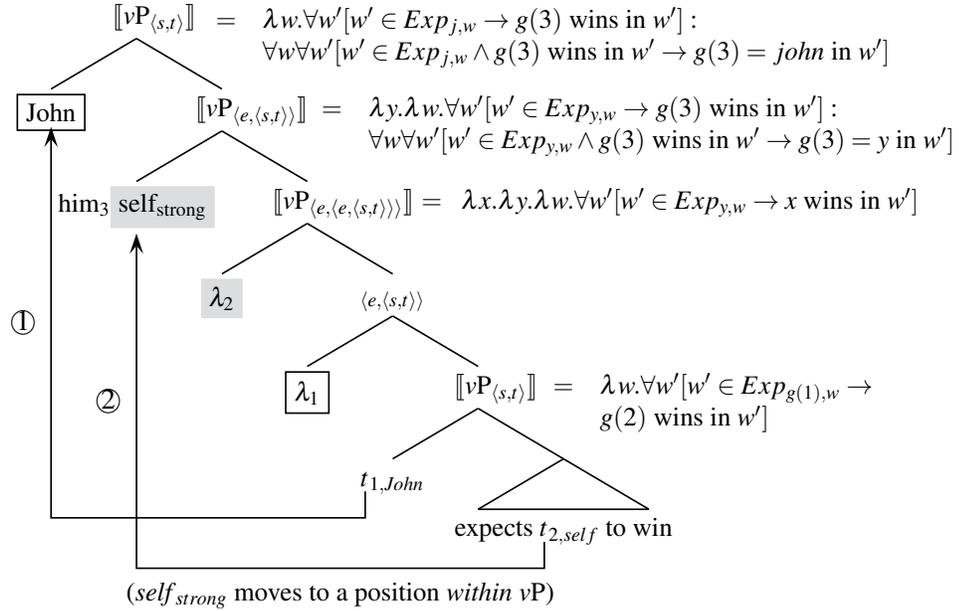
In what follows, I will adopt the fairly innocuous and widely shared assumptions that situation/world variables are represented in the object language (Cresswell 1990, Percus 2000, among others) and that *v*Ps denote properties of situations (type $\langle s, t \rangle$). Moreover, I assume that the lower bound for insertion of these variables in the spine of the tree is the outermost *v*P. As a result, the first *t*-type node is situated above *v*P (see Lechner to appear for arguments in support of this claim.)

The analysis of *de se* reflexives proceeds as outlined in (21). Just as in simple constructions with anaphors, the antecedent and the reflexive move to create a context of parasitic scope. First, the antecedent raises and adjoins to *v*P, followed by movement of the reflexive. As was already seen in Section 1, in the semantic computation, *self* combines with its pronominal sister node before applying to the derived binary relation. (*Exp* collects expectation alternatives of the subject; see below.)

⁹ I am indebted to Clemens Mayr for help in the definition of the weak version. All errors remain mine.

¹⁰ The weak version is also compatible with *de se* readings, it just does not enforce them.

(21) *Derivation of de se reading of John expects himself to win*



Note on the side that there is also an alternative, arguably simpler parse for (18a). Provided that v^0 , which introduces the external argument (Kratzer 1996), is a function from VP-denotations to properties (22), *self* can move to a position in between v^0 and the base position of the subject. This analysis, relevant parts of which are made explicit in (23), equally supplies a suitable context for *self_strong* without the need for a second movement operation, i.e. without parasitic scope.¹¹

(22) $[[v^0]] = \lambda P_{\langle s,t \rangle} . \lambda x_e . \lambda w_s . P(w) \wedge \text{External_Argument}(x)(w)$

(23) *Alternative LF for the de se reading*
 $[[vP \text{ John } [vP \text{ self_strong } [\langle e, \langle e, \langle s, t \rangle \rangle \lambda_1 [\langle e, \langle s, t \rangle \rangle v^0_{\langle \langle s, t \rangle, \langle e, \langle s, t \rangle \rangle}] \text{ [expected } [t_1 \text{ to win}]]]]]]]]$

Irrespective of whether (21) or (23) is adopted, the LFs translate into (24), which gives a close characterization of the *de se* interpretation. (24) presupposes that if John expects $g(3)$ to win, $g(3)$ is necessarily mapped to John, and asserts that John expects $g(3)$ to win. ($Exp_{x,w}$ is the set of expectation alternatives for x in w and (26) a naive semantics for *expect*.)¹²

¹¹ The derivations of (13) and (14), which include two reflexives, would accordingly involve two parasitic scope constellations, in addition to QR of the degree complement, modulo option (23).

¹² ECM complements also lend themselves to an analysis in terms of concept generators. Then, the complement is of type $\langle \langle e, \langle s, e \rangle \rangle, \langle s, t \rangle \rangle$ (Percus & Sauerland 2003 among others). It is harder to see

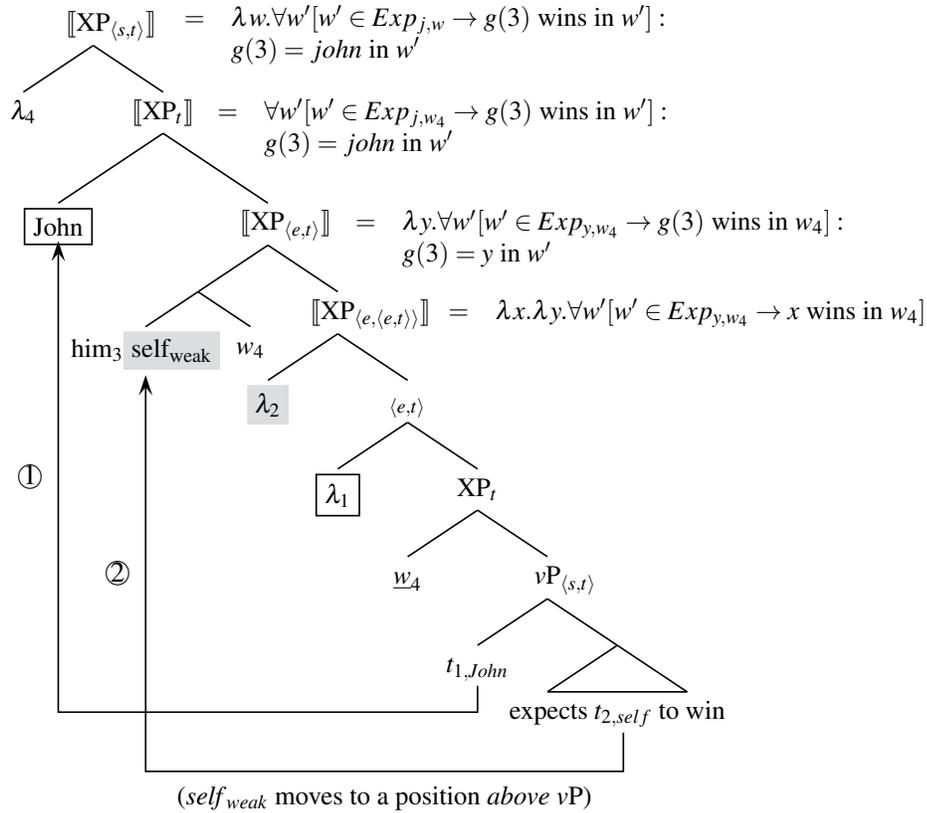
- (24) $\lambda w. \forall w' [w' \in Exp_{j,w} \rightarrow g(e) \text{ wins in } w'] :$
 $\forall w \forall w' [w' \in Exp_{j,w} \wedge g(e) \text{ wins in } w' \rightarrow g(3) = \textit{john in } w']$
- (25) For any $x \in D_e$ and world/situation w :
 $Exp_{x,w} =_{Def} \{w' \mid w' \text{ is compatible with } x\text{'s expectations in } w\}$
- (26) $\llbracket expect \rrbracket = \lambda P_{\langle s,t \rangle} . \lambda w_s . \forall w' [w' \in Exp_{x,w} \rightarrow P(w')]$

Above, the pronominal part of the anaphor was interpreted as a free variable which is assigned a value by the assignment function. Semantically identical results can be obtained by interpreting *him* as a bound variable co-indexed with the antecedent (see Sauerland 2013).

Next, the derivation of the *de re* reading, outlined in (27), employs the same movements that were observed in (21), with the notable exception that they target νP -external positions instead of nodes inside the νP . This has the effect that, as detailed by (27), the νP -denotation applies to the underlined situation/world variable w_4 before the binary relation is created. As a result, the reflexive combines with a node of type $\langle e, \langle e, t \rangle \rangle$, which in turn is possible only if the derivation selects *self_{weak}* instead of *self_{strong}*. Incidentally, (27) also makes visible a second, innocuous, difference between weak and strong *self* encoded in (19). Only *self_{weak}* comes with its own world/situation variable (w_4), which is later bound at the sentence level.

how a centered world approach would fare, though, which requires the sentential argument to denote a property.

(27) *Derivation of de re reading of John expects himself to win*



(28) provides a rough translation of (27). (28) triggers the weaker presupposition that $g(3)$ is John, and asserts that $g(3)$ won in all expectation alternatives of John's. Hence, the 'real-world' counterpart of the winner is presupposed to be John. Again, this seems by and large correct.

(28) $\lambda w. \forall w' [w' \in Exp_{j,w} \rightarrow g(3) \text{ wins in } w'] : g(3) = \text{john in } w'$

Turning finally to the differences between the two verb classes, recall that ECM subjects of B-class verbs undergo overt A-movement to SpecvP, a strategy which bears an uncanny resemblance to object raising in Johnson 1991. Suppose now the derivation selects $self_{weak}$ as the lower subject of a B-class predicate. In order to avoid a type mismatch inside vP (29a), $self_{weak}$ would then have to move on from SpecvP to a vP-external position, as shown in (29b).

(29) John believed himself to win. *de re

- a. *Step 1: Case driven overt movement of reflexive* (✗ Type mismatch)
 [John [_{vP} himself_{weak,⟨⟨e,⟨e,t⟩⟩,⟨e,⟨e,t⟩⟩⟩} [_{vP⟨e,⟨e,⟨s,t⟩⟩⟩} λ₂ λ₁ [_{t_{1,John}} believed
 t_{2,self} to win]]]]]
- b. *Step 2: covert raising* (✗ Syntax)
 [John [himself_{weak,⟨⟨e,⟨e,t⟩⟩,⟨e,⟨e,t⟩⟩⟩} [_{vP⟨e,⟨e,t⟩⟩} λ₃ λ₄ [_{vP w} [_{vP⟨s,t⟩} t_{4,John}
 [t_{3,self} [_{vP⟨e,⟨e,⟨s,t⟩⟩⟩} λ₂ λ₁ [_{t_{1,John}} believed t_{2,self} to win]]]]]]]]]

But there is a number of reasons why such derivations are implausible and should accordingly not be made available by the grammar. First, the two-step movement procedure (29) is more costly than the derivation based on *self_{strong}*, which produces *de se* readings and involves only a single movement. On this conception, the grammar would compare subparts of derivations with identical lexical exponence (yet differences in meaning), selecting the most succinct one. Evidently, this raises questions, among others, about the proper definition of comparison sets, which I will not pursue further at this occasion, though. Second, one might entertain the idea that Case driven movement of the ECM-subject to SpecvP induces Freezing effects known from Case driven movement in overt syntax (Chomsky 2000). Third, it has been observed that cross-linguistically, overt dislocation operations that feed interpretation, among them scrambling in German, bleed further covert movement operations that would produce additional readings. (29) can be seen as another manifestation of this principle.

None of the complications above show up with W-class verbs, because these predicates do not require overt raising of the ECM-subject to a non-canonical object position (read: μ P of Johnson 1991). Rather, reflexive movement is postponed to the covert component, where it implicates a single movement step. The reflexive is accordingly free to choose an appropriate landing site, either within vP or above vP, depending on the lexical choice (*self_{weak}* vs. *self_{strong}*) the derivation was based on.

References

- Anand, Pranav. 2006. *De de se*: Massachusetts Institute of Technology dissertation.
- Bach, Emmon & Barbara H. Partee. 1980. Anaphora and Semantic Structure. In *Papers from the Parasession on Pronouns and Anaphora*, Chicago: University of Chicago Press.
- Barker, Chris. 2007. Parasitic Scope. *Linguistics and Philosophy* 30(3). 407–444.
- Bhatt, Rajesh & Shoichi Takahashi. 2011. Reduced and unreduced phrasal comparatives. *Natural Language & Linguistic Theory* 29(3). 581–620.
- Bresnan, Joan. 1972. *Theory of complementation in English syntax*: Massachusetts Institute of Technology dissertation.

- Chierchia, Gennaro. 1989. Anaphora and attitudes *de se*. In Renate Bartsch, Jon von Benthem & P. van Emde Boda (eds.), *Semantics and contextual expression*, 1–32. Dordrecht: Foris.
- Chomsky, Noam. 2000. Minimalist Inquiries: The framework. In Roger Martin, David Michaels & Juan Uriagereka (eds.), *Step by Step: Essays on minimalist syntax in honor of Howard Lasnik*, Cambridge, MA: MIT Press.
- Cresswell, Max. 1990. *Entities and Indices*. Dordrecht: Kluwer.
- Heim, Irene. 1985. Notes on Comparatives and Related Matters. Ms., University of Texas, Austin.
- Heim, Irene. 1994. Puzzling reflexive pronouns in *de se* reports. Handout, Bielefeld Conference.
- Hellan, Lars. 1981. *Towards an Integrated Theory of Comparatives*. Tübingen: Gunter Narr.
- Johnson, Kyle. 1991. Object Positions. *Natural Language & Linguistic Theory* 9(4). 577–636.
- Keenan, Edward. 1987/1989. Semantic case theory. In *Proceedings of the Sixth Amsterdam Colloquium*, Reprinted in R. Bartsch, J. van Benthem, and P. van Emde Boas (eds.), *Semantics and Contextual Expression*. Foris. Dordrecht. 33–57.
- Kennedy, Christopher. 2009. Modes of Comparison. In Malcolm Elliott, James Kirby, Osamu Sawada, Eleni Staraki & Suwon Yoon (eds.), *Proceedings of the Chicago Linguistic Society 43*, .
- Kratzer, Angelika. 1996. Severing the External Argument from its Verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase Structure and the Lexicon*, 109–138. Dordrecht: Kluwer.
- Lasnik, Howard. 1999. *Minimalist Analysis*. Oxford: Blackwell.
- Lechner, Winfried. 2012. Towards a theory of transparent reflexivization. Ms., University of Athens. <http://users.uoa.gr/~wlechner/Reflexivization%202012.pdf>.
- Lechner, Winfried. 2016. On the Typology of Phrasal Comparatives. Handout, Wiener Sprachgesellschaft, Vienna, June 28, 2016. <http://users.uoa.gr/~wlechner/Wien%202016.pdf>.
- Lechner, Winfried. To appear. A Calculus for Reconstruction and Anti-reconstruction. In Mathias Schenner & Manfred Krifka (eds.), *Reconstruction Effects in Relative Clauses* Studia Grammatica, Berlin: Akademie Verlag.
- McKillen, Alanah. 2016. *On the interpretation of reflexive pronouns*: McGill University dissertation.
- Moulton, Keir. 2005. Strong Reflexivity and attitudes *de se*. Ms. University of Massachusetts Amherst.

- Moulton, Keir. 2008. Strong Reflexivity and attitudes *de se*: Evidence from ECM. Handout, ConSOLE XIV E.H.U.-U. of the Basque Country.
- Napoli, Donna Jo. 1983. Comparative Ellipsis: A Phrase Structure Account. *Linguistic Inquiry* 14(4). 675–684.
- Nissenbaum, Jon. 1998. Movement and Derived Predicates: Evidence from Parasitic Gaps. In Uli Sauerland & Orin Percus (eds.), *MIT Working Papers in Linguistics: The Interpretive Tract 25*, Cambridge, MA: MIT Working Papers in Linguistics.
- Nissenbaum, Jon. 2000. *Investigations of covert phrase movement.*: Massachusetts Institute of Technology dissertation.
- Percus, Orin. 2000. Constraints on Some Other Variables in Syntax. *Natural Language Semantics* 8(3). 173–231.
- Percus, Orin & Uli Sauerland. 2003. Pronoun Movement in Dream Reports. In Makoto Kadowaki & Shigeto Kawahara (eds.), *NELS 33: Proceedings of the Thirty-third Annual Meeting of the North East Linguistic Society*, Amherst, MA: GLSA Publications.
- Pesetsky, David. 1992. Zero Syntax 2: Infinitives. Ms, Massachusetts Institute of Technology.
- Richards, Norvin. 2001. *Movement in Language: Interactions and Architectures*. Oxford: Oxford University Press.
- Sauerland, Uli. 1998. *The Meaning of Chains*: Massachusetts Institute of Technology dissertation.
- Sauerland, Uli. 2013. Presuppositions and the Alternative Tier. In Todd Snider (ed.), *Semantics and Linguistic Theory* 23, 156–173.
- Sharvit, Yael. 2011. Covaluation and unexpected BT effects. *Journal of Semantics* 28. 55–106.
- Spathas, Giorgos. 2017. On the semantic non-uniformity of reflexive anaphors. Handout, Debrecen Workshop on Pronouns. University of Debrecen, 24–25 February. <https://www.dropbox.com/s/jdhn1qh6onr80nq/DebrecenTalkFinal.pdf?dl=0>.
- von Stechow, Arnim. 1984. Comparing Semantic Theories of Comparison. *Journal of Semantics* 30. 1–77.
- Szabolcsi, Anna. 1987. Bound variables in syntax. (Are there any?). In Jeroen Groenendijk, Martin Stockhof & Frank Veltman (eds.), *Proceedings of the 6th Amsterdam Colloquium*, 331–353. Amsterdam: University of Amsterdam. <http://semanticsarchive.net/Archive/GQyODUwZ>.