Perspectival anaphora: a Dravidian perspective into Germanic

CGSW 28, October 5, 2013

Sandhya Sundaresan, Universität Leipzig
sandhya.sundaresan@uni-leipzig.de

☞ The goal of this talk is to argue that certain non-local anaphoric dependencies (NLA)[1] in Icelandic and potentially also Norwegian and Dutch, may receive a unified analysis within a formal model where mental/spatio-temporal perspective is *syntactically* represented.

☞ Such a model is superior to one where a proper subset of supposedly "well-behaved" NLAs receive a structural treatment while the more problematic ones (involving non-c-commanding antecedents, logophora and the like) are analyzed as purely pragmatic, with no structural component, given the empirical similarities between the two.

☞ I will show, furthermore, that the structural instantiation of perspective is independently supported by empirical evidence from verbal agreement paradigms in a completely different language – namely Tamil, a non Indo-European language of the Dravidian family.

1 The role of perspective in Icelandic NLA

☞ A central, and well discussed, property of Icelandic NLA is that it obtains across subjunctives but is blocked across indicatives (Hellan, 1988; Reuland, 2001a; Hicks, 2009).

This is illustrated by the minimal pair below (taken from Hicks, 2009, formatting mine):

(1) Jón$_i$ heyr-ð-i [$_{CP}$ að ég **hef-ð-i** svikið
Jon hear$_{\text{IND.PST-3SG}}$ that I have.$_{\text{SBJV-PST-3SG}}$ betrayed.$_{\text{PTCP}}$
sig$_{\{i,*j\}}$].
ANAPH
"Jon$_i$ heard [$_{CP}$ that I had betrayed him$_{\{i,*j\}}$]."

(2) * Jón$_i$ heyr-ð-i [$_{CP}$ að ég **haf-ð-i** svikið
Jon hear$_{\text{IND.PST-3SG}}$ that I have.$_{\text{IND-PST-3SG}}$ betrayed.$_{\text{PTCP}}$
sig$_i$].
ANAPH
"Jon$_i$ heard [$_{CP}$ that I had betrayed him$_{\{i,*j\}}$]."

[1] Here and elsewhere in the talk, I use the term "anaphora" as a cover-term for different types of referential dependency including not only long-distance anaphora but also logophora and structures involving so called "backward binding" with a non-c-commanding antecedent.

☞ However, subjunctive marking is not a sufficient condition for NLA in Icelandic.

The embedded (subjunctive) clause containing the anaphor is exactly the same in (3) and (4); yet, NLA is possible in (3), but not in (4):

(3) Barnið$_i$ lét ekki í ljós [$_{CP}$ að það hef-ði verið hugsað vel um
child.DEF put not in light that there had-SBJV been thought well about
sig$_{\{i,*j\}}$].
ANAPH
"[The child]$_i$ didn't reveal [$_{CP}$ that she$_{\{i,*j\}}$ had been taken good care of]."

(4) * Barnið$_i$ bar þess ekki merki [$_{CP}$ að það hef-ði verið hugsað vel
child.DEF bore of it not signs that there had-SBJV been thought well
um sig$_i$].
about ANAPH
"[The child]$_i$ didn't look [$_{CP}$ as if she$_i$ had been taken good care of]."

Reuland (2001b, 345), describing the sentences in (3)-(4), reports that:

> "The difference in acceptability between [(3)] and [(4)] can be attributed to the fact that in [(3)] the report is made from the child's point of view, i.e., it is the child, and not the speaker, who didn't reveal that he/she had been taken good care of, whereas in [(4)], it is the speaker who reports that the child didn't look as if he/she had been taken good care of."

In other words:

☞ The DP 'the child' denotes a mental perspective holder with respect to the clause containing the anaphora in (3), but not in (4).

The importance of perspective is also illustrated in the minimal pair below:

(5) [$_{DP}$ Skoðun Jóns$_i$] er [$_{CP}$ að sig$_{\{i,*j\}}$ vanti hæfileika].
opinion Jon.GEN is that ANAPH.ACC lacks.SBJV talents
"[$_{DP}$ Jon's$_i$ opinion] is [$_{CP}$ that he$_{\{i,*j\}}$ lacks talents]."

(6) * [$_{DP}$ Skoðun Jóns$_i$] fær mig til að halda [að sig$_i$ vanti
opinion Jon.GEN leads me to to believe [that ANAPH.ACC lacks.SBJV
hæfileika].
talents]
"Jón's$_i$ opinion leads me to believe [that he$_i$ lacks talents]" (Intended)

- In (5), the possessor *Jón* holds a mental perspective over the content of the clause containing the anaphor.
- But in (6), it doesn't: i.e. while *Jón* still has an opinion, that opinion is not reflected in the content of the clause containing the anaphor.
- The possibilities for *sig* antecedence directly track this distinction.

Crucially furthermore, the identity of the perspective-holder also seems to condition the choice of subjunctive vs. indicative marking on the verb (cf. again: (1)):

- The role of the subjunctive in Icelandic seems to be "to signal that the perspective-holder of a given construction is distinct from the [utterance-context] speaker" (Hellan, 1988, 89) or, as Sigurðsson (2010, 50): "In modern Icelandic, the most important factor that triggers subjunctive marking in these complements is that the speaker does not take *responsibility* for their truthfulness" (Sigurðsson, 2010, 50).
- In other words, the DP *Jón* denotes a mental perspective holder with respect to the embedded clause containing the anaphor in (1), but not in (2).

The central factor for successful NLA into Icelandic subjunctives thus reduces to a single condition (as is generally acknowledged in the literature on this issue):

(7) The DP must denote an entity who holds a mental perspective, the content of which is denoted by the clause containing the anaphor.

1.1 A prominent analysis: perspective vs. structure

(i) A prominent strand of analysis of Icelandic anaphora is that NLA into subjunctives denotes a purely pragmatic phenomenon (Thrainsson, 1976; Sigurðsson, 1990; Reuland, 2001a, 2006; Hicks, 2009).

(ii) This is meant to stand in opposition to other instances of *sig*-anaphora, such as NLA into infinitives.

The evidence that is standardly presented in favor of (i) is as follows:

- NLA into subjunctives is possible even in cases that seem to violate standard structural conditions on syntactic relationships: e.g. a DP may antecede *sig* in a subjunctive clause that it doesn't c-command (cf. Example (5) above).
- Although *sig* often takes a subject antecedent, this subject orientation may be violated – as illustrated in (8), taken from Reuland (2006):

  (8) Það gledur Jón$_i$ [að ég muni lemja sig$_{\{i,*j\}}$ í hausinn með
  it pleases Jón that I will.SUBJ hit ANAPHÂăin the.head with stick
  spýtu á morgun].
  tomorrow
  "It pleases Jón$_i$ [that I will hit him$_{\{i,*j\}}$ on the head with a stick tomorrow]"

- Logophoric binding of *sig*, as in (9) from Sigurðsson (1990), also obeys the antecedence condition given in (7):

  (9) María var alltaf svo andstyggileg. þegar Ólafur$_j$ kæmi
  Maria was always so nasty. When Olaf come.PST.SBJV
  segði hún sér$_{\{i,*j\}}$ áreiðanlega að fara ...
  say.PST.SBJV she ANAPH.DAT certainly to leave ...

"Maria was always so nasty. When Olaf would come, she would certainly tell him(self) [the person whose thoughts are being presented – not Olaf] to leave."

- In all these cases, the governing condition seems to be that given in (7).

In contrast, NLA of *sig* into infinitives has been argued (citations above) to be structurally determined, on the following grounds:

- The antecedent is always a syntactic subject: cf. the minimal pair below (Reuland, 2006):

(10) Jón$_i$ skipaði mér$_j$ [PRO$_j$ að lemja sig$_i$].
Jón ordered me PRO to hit.INF ANAPH
"Jón$_i$ ordered me$_j$ to hit him$_i$."

(11) * Ég$_j$ hótaði Jóni$_i$ [PRO$_j$ að lemja sig$_i$].
I threatened Jón PRO to hit.INF ANAPH
"I threatened Jón$_i$ to hit him$_i$." (Intended)

- A non-c-commanding DP may not antecede *sig* – compare (12) (also from Reuland (2006) with (5):

(12) * [$_{DP}$ Skoðun Jóns$_i$]$_j$ virðist [t$_j$ vera hættuleg fyrir sig$_i$]
opinion Jón's seems be.INF dangerous for ANAPH
"[Jón's$_i$ opinion] seems to be dangerous for him$_i$." (Intended)

This has led to a splitting up of Icelandic NLA into two underlying types, potentially involving the existence of two homophonous *sig*s (Hicks, 2009):

☞ one that is purely pragmatic, involving NLA into subjunctives and logophoric structures,

☞ – and the other involving structural NLA into infinitives (and other types of *sig* anaphora, e.g. co-argument binding with inherently reflexive predicates).

1.2 An alternative: perspective *and* structure

☞ A closer look at Icelandic NLA into infinitives, however, calls into question the idea that structure is taking precedence over perspective in these cases.

The lack of object antecedence into infinitives containing *sig*:

- In (11), repeated below, which is supposed to show the impossibility of an object antecedent into an infinitive, the object *Jón* is actually not a perspective holder with respect to the infinitival clause containing *sig*:

(13) * Ég$_j$ hótaði Jóni$_i$ [PRO$_j$ að lemja sig$_i$].
I threatened Jón PRO to hit.INF ANAPH
"I threatened Jón$_i$ to hit him$_i$." (Intended)

- This is in direct contrast to the felicitous subjunctive case in (8), repeated below, where the object antecedent *is* a perspective-holder relative to the subjunctive clause containing *sig*:

  (14) Það gledur Jón$_i$ [að ég muni lemja sig$_{\{i,*j\}}$ í hausinn með
  it pleases Jón that I will.SUBJ hit ANAPHÂăin the.head with stick
  spýtu á morgun].
  tomorrow
  "It pleases Jón$_i$ [that I will hit him$_{\{i,*j\}}$ on the head with a stick tomorrow]"

- Thus, the ungrammaticality of (11) could be just as well due to the lack of an appropriate perspectival relationship between the antecedent and the clause containing the anaphor.

The same problem besets the argument based on antecedence c-command into infinitives:

- In (12), repeated below, *Jón* again does not denote a perspective holder. Of course, Jón does have an opinion but crucially, this opinion is not the content of the infinitive containing *sig*: i.e. Jón's opinion is not about something being dangerous for him.

  (15) * [$_{DP}$ Skoðun Jóns$_i$]$_j$ virðist [t$_j$ vera hættuleg fyrir sig$_i$]
  opinion Jón's seems be.INF dangerous for ANAPH
  "[Jón's$_i$ opinion] seems to be dangerous for him$_i$." (Intended)

- Consider in contrast the sentence below, repeated from (5), which involves a non-c-commanding antecedent in subjunctive NLA:

  (16) [$_{DP}$ Skoðun Jóns$_i$] er [$_{CP}$ að sig$_{\{i,*j\}}$ vanti hæfileika].
  opinion Jon.GEN is that ANAPH.ACC lacks.SBJV talents
  "[$_{DP}$ Jon's$_i$ opinion] is [$_{CP}$ that he$_{\{i,*j\}}$ lacks talents]."

- In (16), the antecedent *Jón* does denote a perspective holder and this perspective is, furthermore, the content of the clause containing *sig*.

Of course, there may well be other data showing that structural concerns do indeed trump perspective in infinitives, but the data that have been presented to make this point, as far as I'm aware, is not compelling. As such:

☞ Structures involving NLA into infinitives are compatible with the relevance of antecedence perspective for NLA.

Potential additional evidence for the relevance of perspective – spatial, this time – comes from *sig* anaphora into locative PPs:

- Icelandic *sig* has been noted (Maling, 1986; Hicks, 2009) to take object antecedents in certain clause-internal constructions – but these structures have been noted to show considerable inter-speaker variation (as opposed to those involving subject antecedents).

- However, one such case, specifically that involving anaphora into locative PPs (Ex. (17) adapted from Maling, 1986), has been singled out as showing far more consistent acceptability amongst speakers:

(17) Ég tók kanínuna$_i$ [$_{PP}$ úr búrinu sınu$_{\{i,*j\}}$].
I took the.rabbit out cage ANAPH.POSS
"I took [the rabbit]$_i$ out of its$_{\{i,*j\}}$ cage."

☞ This pattern, while potentially exceptional in an analysis that treats the subject orientation as a structural condition on antecedence is predictable under one involving perspective-holding.

☞ Specifically, the antecedent in a structure like (17) would denote the spatial perspective-holder, whose perspective is denoted by the PP containing *sig*.

Recall that the perspective-sensitivity of NLA into subjunctives was taken as automatic evidence against the involvement of structural factors in NLA. However:

- The fact that the choice of perspective-holder in Icelandic directly feeds the realization of mood (indicative vs. subjunctive) on the verb itself suggests that perspective is grammatically encoded.

- Recent theories have proposed that certain types of discourse pragmatic information, perspective among them, be encoded on designated syntactic positions in the clausal left periphery (Bianchi, 2003; Speas and Tenny, 2003; Sigurðsson, 2004; Speas, 2004; Giorgi, 2010).

- In the next section, we will see compelling evidence from a very different language with perspectival NLA, that perspective is structurally instantiated in some languages.

☞ I will thus propose here that Icelandic NLA involves both structure and perspective.

2 Evidence for structural perspective: NLA in Tamil

☞ Compelling empirical evidence for the structural instantiation of perspective, however, comes from a completely different language, namely the Non-Indo-European language Tamil of the Dravidian family.

☞ Verbal agreement patterns triggered under anaphora in this language show conclusively that mental and/or spatio-temporal perspective is structurally represented.

2.1 Perspectival anaphora in Tamil: a (very!) quick primer

- The Tamil simplex anaphor is *ta(a)n*; it takes 3rd person singular antecedents but also has a plural form *taanŋa*ɭ- that takes 3rd plural antecedents.

- Like in Icelandic, NLA in Tamil is perspective-driven; the antecedent may denote a mental or spatio-temporal perspective-holder with respect to the predication containing the anaphor.

The relevance of perspective in Tamil NLA (specifically: anaphora into CPs, PPs, and DPs) can perhaps be most clearly shown in minimal pairs involving a bound pronoun vs. anaphor:

(18) *ta(a)n* **vs. deictic pronoun inside possessive DP:**

a. Raman$_i$ tann-ooḍæ$_{\{i,*j\}}$ eḍædŭ-pakkattŭ-læ irŭ-nd-æ paamb-æ
Raman ANAPH-DAT left-side-LOC be-PST-REL snake-ACC
ko-nn-aan.
kill-PST-3MSG
"Raman$_i$ killed the snake that was to his$_{\{i,*j\}}$ left."

b. Raman$_i$ avan-ŭkkŭ$_{\{i,j\}}$ eḍædŭ-pakkattŭ-læ irŭ-nd-æ paamb-æ
Raman he-DAT left-side-LOC be-PST-REL snake-ACC
ko-nn-aan.
kill-PST-3MSG
"Raman$_i$ killed the snake (that was) to his$_{\{i,j\}}$ left."

The sentences in (18) show the following:

- A deictic pronoun like *avan* ('he') inside a spatial adjunct DP may be bound in apparent alternation with the anaphoric *ta(a)n* form.

- The deictic variant in (18b) report the (spatio-temporal or mental) perspective of the utterance context speaker (or are underspecified with respect to whose perspective they report) towards the minimal predication containing the bound pro-form.

- The anaphoric variant in (18a) explicitly denote the spatio-temporal (or mental) perspective of the entity denoted by the antecedent DP with respect to the minimal predication containing the anaphor. E.g. in (18a), the "left-ness" of the snake is evaluated from Raman's perspective.

Again like in Icelandic, Tamil perspectival anaphora obtains in environments that seem to violate structural conditions on syntactic relationships – locality, minimality, c-command, and determinacy:

(19) **Antecedent: non-local and non-minimal:**

[$_{CP}$ Raman Anand-kiṭṭæ [$_{CP}$ Seetha tann-æ$_i$
Raman[NOM] Anand-ALL Seetha[NOM] ANAPH-ACC
kaappaatt-in-aaḷ-ŭnnŭ] so-nn-aan-nnŭ] Krishnan$_i$ paar-tt-aan.
save-PST-3FSG-COMP] say-PST-3MSG-COMP Krishnan[NOM] saw-PST-3MSG

"Krishnan$_i$ saw [$_{CP}$ that Raman told Anand [$_{CP}$ that Seetha saved him$_i$.]]"

(20) **Antecedent: non c-commanding:**

[$_{CP}$ [$_{DP}$ Taan$_{\{i,j\}}$ avvaḷavŭ eeɻæ-jaaga irŭnd-adŭ] [$_{DP}$ avan-ooḍæ$_i$
ANAPH[NOM] so poor-ADJ be-PST-3NSG.NOM Raman-GEN
aŋŋaav-æ]$_j$ rombæ-vee baadi-jirŭ-kkir-adŭ.]
brother-ACC very-EMPH affect-be-PRS-3NSG

"[$_{DP}$ His$_{\{i,j\}}$ having been so poor] has really affected [$_{DP}$ [$_{DP}$ his$_i$] brother]$_j$."

(21) **Antecedent: extra-sentential (logophoric):**

Seetha-vŭkkŭ$_i$ oŋŋum purija-læ. Taan$_{\{i,*j\}}$ maṯṯum een ivvaḷavŭ
Seetha-DAT anything understand-NEG. ANAPH.NOM alone why this.much
kašṯappaḍa-ŋum?
suffer-must?
Seetha$_i$ didn't understand at all. Why must she$_{\{i,*j\}}$ alone suffer this much?

(22) **Choice of antecedent: indeterminate:**
Krishnan$_i$ [$_{CP}$ Seetha tann-æ$_{\{i,j\}}$ kaadali-kkir-aaḷ- ŭnnŭ] Raman-æ$_j$
Krishnan[NOM] Seetha[NOM] ANAPH-ACC love-PRS-3FSG- COMP Raman-ACC
nenekka-vej-tt-aan.
think-CAUS-PST-3MSG

"Krishnan$_i$ made Raman$_j$ believe [$_{CP}$ that Seetha loved him$_{\{i,j\}}$]"

☞ However, independent evidence from verbal agreement triggered under anaphora in Tamil conclusively shows that perspective not only can, but must, be structurally instantiated.

2.2 Crucial insights from Tamil verbal agreement

- Tamil uniformly manifests subject agreement on the verb.

(23) [Nii paris-æ tookkapoo- gir-aaj-ŭnnŭ] Raman namb-in-aan.
you[NOM] prize-ACC lose.go- PRS-2SG-COMP Raman believe-PST-3MSG
"Raman$_j$ believed [$_{CP}$ that you would lose the prize]."

- Tamil *ta(a)n* may occur both in object and (agreement-triggering) subject position – a typologically rather rare phenomenon.

But the nature of agreement triggered under subject *ta(a)n* is revealing:

(24) Maya$_i$ [$_{CP}$ Raman$_j$ [$_{CP}$ taan$_{\{i,*j,*k\}}$ paris-æ tookkapoo-gir-**aa**ḷ-nnŭ]
Maya Raman ANAPH[NOM] prize-ACC lose.go-PRS-3FSG-COMP
namb-in-aan-ŭnnŭ] [pasaŋ-gaḷ-kiṯṯæ]$_k$ kaaṯṯ-in-aaḷ.
believe-PST-3MSG-COMP boy-3PL-ALL show-PST-3FSG
"Maya$_i$ showed [the boys]$_k$ [$_{CP}$ that Raman$_j$ believed [$_{CP}$ that she$_i$/*he$_j$/*them$_k$ would lose the prize]]."

(25) Maya$_i$ [$_{CP}$ Raman$_j$ [$_{CP}$ taan$_{\{j,*i,*k\}}$ paris-æ tookkapoo-gir-**aan**-nnŭ]
Maya Raman ANAPH[NOM] prize-ACC lose.go-PRS-3MSG-COMP
namb-in-aan-ŭnnŭ] [pasaŋ-gaḷ-kiṯṯæ]$_k$ kaaṯṯ-in-aaḷ.
believe-PST-3MSG boy-3PL-ALL show-PST-3FSG

"Maya$_i$ showed [the boys]$_k$ [$_{CP}$ that Raman$_j$ believed [$_{CP}$ that he$_j$/*she$_i$/them$_k$ would lose the prize]]."

(26) Seetha$_i$ naḍandadæ-patti joosi-čč-aaḷ. Taan$_i$ een
Seetha[NOM] happening-ACC-about reflect-PST-3FSG. ANAPH[NOM] why
kašṭappaṭṭ-iru-kk-**aa**ḷ?
suffer-PRF-PRS-3FSG
"Seetha$_i$ reflected about what had happened. Why had she$_i$ suffered?"

Patterns:

- When the intended antecedent is 3FSG *Maya* (24), the agreement under *ta(a)n* is also 3FSG.
- But in the minimally varying (25), the agreement under *ta(a)n* is 3MSG, with the only possible antecedent being *Raman*.
- In (26), *ta(a)n* refers "logophorically" to the extra-sentential attitude-holder *Seetha*, but the agreement under *ta(a)n* must still reflect the ϕ-features of this antecedent: if *Seetha* were replaced by 3MSG *Raman*, the agreement-marking would be 3MSG *-aan* instead.

☞ **Descriptive generalization:** The agreement tracks the antecedent of the anaphor *ta(a)n*.

Analytic option I: Given (23), it is tempting to think that the source of agreement under *ta(a)n* is *ta(a)n* itself.

- However, since the agreement triggered under *ta(a)n* may vary, this would be tantamount to proposing two different *ta(a)n*-s in (24)-(26).
- Further evidence against the idea that *ta(a)n* directly triggers agreement comes from "monstrous" agreement patterns (the term "monster" alluding to a shifted indexical Kaplan, 1989) as in (27).
- Robust crosslinguistic evidence showing that anaphors are incapable of triggering regular ϕ-agreement (Rizzi, 1990; Woolford, 1999, "Anaphor Agreement Effect") and often fail to unambiguously identify the full set of ϕ-features of their antecedents (Pica, 1987; Reinhart and Reuland, 1993; Kratzer, 2009) – should also make us skeptical.

Analytic option II: The agreement on the verb under *ta(a)n* is triggered by the antecedent of this anaphor – e.g. via long-distance agreement or something like it.

- Crucially, (27) also shows that this cannot be the case.

(27) Raman$_i$ [$_{CP}$ taan$_{\{i,*j\}}$ ʤej-pp-**een**-nnŭ] so-nn-aan-nnŭ] Krishnan$_j$
Raman ANAPH[NOM]$_i$ win-FUT-1SG-COMP say-PST-3MSG-COMP Krishnan
nene-čč-aan.
thought-PST-3MSG
"Krishnan$_j$ thought [$_{CP}$ that Raman$_i$ said [$_{CP}$ that he$_{\{i,*j\}}$ would win]"

- In (27) *taan*'s antecedent, *Raman*, is 3MSG, but the agreement under *ta(a)n* is 1SG.

- But this 1SG agreement only obtains when the antecedent is the AGENT of a speech-predicate; if the antecedent were *Krishnan*, 3MSG agreement would obtain instead.

In Sundaresan (2012), I propose that the 1st-person agreement under *ta(a)n* instantiates a type of Kaplanian indexical shift (Kaplan, 1989; Schlenker, 2003). The relevant state-of-affairs may thus be depicted as follows:

Observation I: ϕ-feature agreement under subject *ta(a)n* is not directly triggered by *ta(a)n*.

Observation II: This agreement is not directly triggered by the antecedent of *ta(a)n*.

Observation III: But it nevertheless tracks the antecedent of *ta(a)n*.

Assumption: ϕ-feature agreement is locally implemented in the Narrow Syntax.

Conclusion I: The ϕ-features of the nominal that gets interpreted as the antecedent of *ta(a)n* are represented on a local entity in the Narrow Syntax, which is responsible for triggering verbal agreement under the anaphor.

Conclusion II: The antecedent is itself not a local entity with respect to the anaphor (in long-distance and logophoric structures). Thus, the local entity "standing in" for the antecedent must be distinct from both the antecedent and the anaphor.

Conclusion III: Logophoricity and anaphoricity both involve a core syntactic sub-component, and a unified approach to both is empirically warranted.

Given the empirical similarities between NLA patterns in Tamil and Icelandic, in particular the relevance of perspective for NLA, and the effect of perspective on overt verbal morphology in both languages, I propose that:

☞ In Icelandic, as in Tamil, NLA involves structural perspective in the manner specified below.

3 Putting it all together: a two-step model of NLA

The central claim is thus as follows:

Two-step NLA:

☞ *Every instance* of perspectival NLA (logophoric, long-distance, backward etc) in Tamil (and languages like it, e.g. Icelandic) is restricted by both perspectival and structural factors.

☞ NLA thus represents a hybrid syntactico-pragmatic phenomenon that is comprised of two separate dependencies:

(i) A perspectival relationship between the entity denoted by the antecedent and the minimal predication containing the anaphor.

(ii) A syntactic relationship between the anaphor and some local object that "stands in" for the antecedent of this anaphor.

3.1 Introducing the perspectival center

☞ The optimal way to relate the perspectival and structural dependencies above would be to claim that the linguistic object that "stands in" for the antecedent in the local phase of the anaphor = the object that hosts the perspective of the antecedent.

- Fillmore (1997) proposes that every sentence has a *deictic center* including, among other things, the present time, location, and thematic information pertaining to the speaker; a similar notion is that of Kaplan (1989)'s utterance context.
- Even more to the point is the enriched intensional index of Lewis (1979) which is supposed to contain information pertaining to the time, world, and location of an attitude-holder and to Bianchi (2003)'s concept of "internal logophoric center".

Extending these insights, I introduce the notion of a "*perspectival center*", defined as follows:

(28) **The Perspectival Center**:

i. The *perspectival center* contains the coordinates pertaining to the time, location, world, and/or mental information of a salient perspective holder.

ii. Certain predicational structures, specifically phases (= PPs, DPs, CPs), contain a perspectival center by virtue of what they inherently "mean". In a proper subset of these cases, the representation of the perspectival center in a phrase can be traced back to the selectional properties of its immediately superordinate predicate.

(29) The perspectival center in the local phase of an anaphor mediates the relationship between an anaphor and its antecedent as follows:

- it hosts the mental and/or spatio-temporal coordinates of this antecedent, and must therefore have "access" to this antecedent in some way.
- it enters into a syntactic dependency with the anaphor.
- when the anaphor is in subject position, it enters into a syntactic dependency with the T head in that phase, yielding the "antecedent tracking" effect of verbal agreement.

3.2 The Antecedence-PerspectivalCenter relation

☞ As we have seen, there are no (obvious) structural constraints placed on the distribution of the antecedent in Tamil and Icelandic: i.e. the antecedent may be extra-sentential (logophoric), non-c-commanding, non-local, non-minimal, and indeterminate.

☞ By extension, the relationship between the antecedent and the perspectival center in the local phase of the anaphor must be a non-structural one.

In fact, this relationship is very reminiscent of that labelled "non-obligatory control" (in the sense of Williams, 1980) – instantiated by sentences like (30)-(32), and defined as in (33):

(30) $[_{CP}$ EC_i to leave] would be Max_i's pleasure.
(31) $[_{CP}$ EC_{arb} to leave] would be a pleasure.
(32) She_i is relying on Max_j $[_{CP}$ $EC_{\{i,j\}}$ to get everything done].
(33) **Non-obligatory control** (Williams, 1980, 212):

a. No antecedent is necessary.
b. If there is an antecedent, it need not c-command.
c. The antecedent may follow S [the clause containing PRO].
d. The antecedent is not uniquely determined.
e. Lexical NP can appear in the position of PRO.

Thus, I propose that:

☞ The relationship between the antecedent and the perspectival center instantiates a type of non-obligatory control.

☞ In a clause containing a successfully bound anaphor, the antecedent DP non-obligatorily controls a silent pronoun denoting the perspectival center, in the local phase of the anaphor.

☞ This perspectival pronoun is hosted in the specifier of a functional projection (call it Perspectival Phrase/PerspP) – following similar ideas in Koopman and Sportiche (1989) and Baker (2008).

☞ In Icelandic, this PerspP is what is responsible for triggering mood morphology on the verb (thus may be labelled MoodP).

4 Formalisms and derivations

Here, I will present the toolbox of formal features and operations that will carry the two-step binding model developed above. It is important to bear in mind, however, that:

- The central contribution that I wish to make here is the conception of the two-step binding model involving, crucially, a *mediating, syntactically represented* perspectival operator.

- The specific details of how this intuition is formally implemented will, on the other hand, depend on largely orthogonal factors pertaining to the theoretical framework one adopts.

- However, the two-step binding model should stand independent of these assumptions.

Here, I will present a formal implementation that seems to me to optimally capture the types of data discussed above within a Minimalist, Late Insertion framework.

4.1 Syntactic features and LF issues

I propose that the syntactic correlate of nominal anaphoricity is a feature labelled "DEP", and defined as follows:

(34) **The DEP feature:**
   i. A DEP feature marks two DPs X and Y that are in a syntactic binding dependency with one another.
   ii. An anaphor has an unvalued DEP feature – this is the syntactic correlate of anaphoricity; the silent pronoun in [Spec, PerspP] is born with a valued DEP feature.

In addition to DEP, the anaphor, operator in [Spec, PerspP] and the T head have ϕ-feature attributes.
At LF, two operations obtain:

Operation I: The pronominal operator in [Spec, PerspP] that the anaphor Agrees is construed as its semantic binder, as a result of the Agree relationship between the two.

Operation II: The assignment function maps the DEP-value on these elements to the individual (in the evaluation context) denoted by the linguistic antecedent of the anaphor. This obtains just in case:

   i. the ϕ-features on the referent are consistent with those on the operator in [Spec, PerspP].
   ii. the referent holds a mental and/or spatial perspective on the minimal predication containing the anaphor.

5 Sample derivations: subjunctive NLA in Icelandic

Here is how this all plays out with subjunctive NLA in Icelandic. Let us take a "problematic" case, namely that involving a non-c-commanding antecedent. Consider again the minimal pair below:

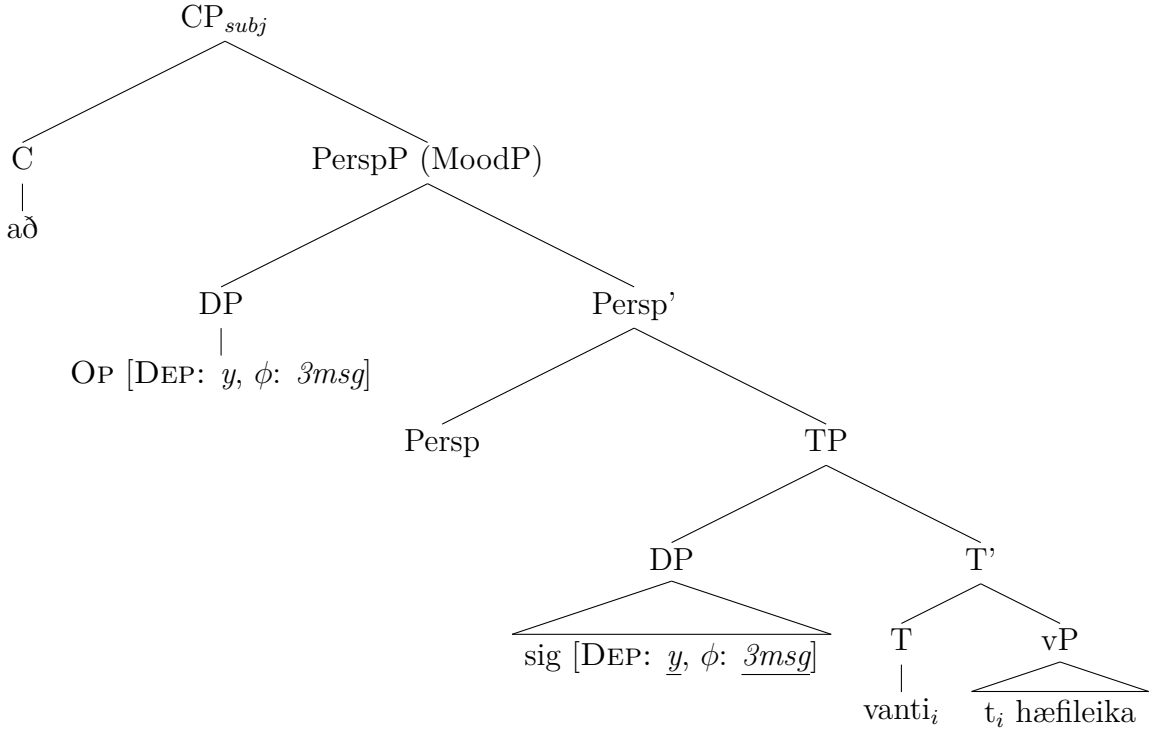
(35) $[_{DP}$ Skoðun Jóns$_i$] er $[_{CP}$ að sig$_{\{i,*j\}}$ vanti hæfileika].
opinion Jon.GEN is that ANAPH.ACC lacks.SBJV talents
"$[_{DP}$ Jon's$_i$ opinion] is $[_{CP}$ that he$_{\{i,*j\}}$ lacks talents]."

(36) * [$_{DP}$ Skoðun Jóns$_i$] fær mig til að halda [að sig$_i$ vanti
opinion Jon.GEN leads me to to believe [that ANAPH.ACC lacks.SBJV
hæfileika].
talents]
"Jón's$_i$ opinion leads me to believe [that he$_i$ lacks talents]" (Intended)

☞ Crucially given the two-stage NLA model developed here, only the embedded subjunctive clause is relevant for the structural aspect of things, and this clause is crucially the same for both (35) and (36).

Here is the tree after Agree has taken place and before SpellOut:[2]

(37)



Step I: The syntactico-semantic binding relationship: (35)/(36)

- The anaphor *sig* probes upward to get its DEP feature valued.
- It Agrees with the operator in [Spec, PerspP], which is the minimal c-commanding Goal and thus has its DEP-feature valued as *y*.
- At LF, the matching *y* feature on the operator and anaphor results in them being construed as a binder-bindee pair under semantic variable binding.

Thus both (35) and (36) generate successful syntactic structures that are shipped to the interfaces. However, only (35) succeeds at LF; (36) is filtered out.

Step 2: The semantico-pragmatic antecedence relationship: (35)

[2]The features on the anaphor are underlined for visual clarity, to indicate that they have been inherited via Agree and are not inherent.

- The assignment function g will try to map y to one of the individuals, selected from both the salient discourse and the sentence structure, in its range.
- In (35), the range of g = (at least) {Jón, Jón's opinion}.
- The mapping of the DEP-feature to value to one of these individuals will, however, be restricted by the consistency condition and perspectival condition described above.
- Both *Jón* and *Jón's opinion* fulfill the consistency condition, since both are specified 3MSG.
- However, only *Jón* denotes a mental perspsective holder with respect to the subjunctive CP containing *sig*– thus only it satisfies the perspectival condition.
- This yields: $y \rightarrow$ Jón by g with the result that *sig* refers to Jón (despite not being c-commanded by it).

Step 2: The semantico-pragmatic antecedence relationship – (36):

- In the long-distance embedded sentence in (36), the range of the assignment function g is at least: {Jón, Jón's opinion, Speaker$_{utt-context}$}.
- The DP that denotes Jón's opinion is again ruled out since it cannot denote a mental perspective holder.
- The DP *mig* denoting the Speaker of the utterance context fails because its ϕ-features of 1SG $\neq$ ϕ-features on the operator in [Spec, PerspP], in the evaluation context.[3]
- The DP *Jón* of course does satisfy the ϕ-consistency condition, as it is also 3MSG. However, in the sentence in (36), it does not denote a perspective holder with respect to the subjunctive clause containing *sig*.
- Thus, none of the DPs in the sentence qualify as referents for *sig* leading to a crash at LF.

6 Preliminary extensions: spatial anaphora in Dutch and Norwegian

☞ The relevance of mental perspective in Dutch and Norwegian NLA is not clear.

☞ However both languages show promising evidence for the relevance of spatial perspective in NLA.

[3]Of course, the operator in [Spec, PerspP] could have happened to be born with 1SG features: nothing in the system prevents this. However, we must additionally assume that anaphors like *sig*, and also *ta(a)n*, are inherently specified to not refer to the speaker/addressee of the utterance context (Sundaresan, 2012, for more).

Consider sentences below involving anaphora into "spatial" (locational) PPs in Dutch (Rooryck and vanden Wyngaerd, 2011, 266-7, formatting mine):

(38) [De volwassenen]$_i$ op het schilderij kijken van ons weg, met de kinderen [$_{PP}$ The adults on the painting look from us away with the children achter zich$_{\{i,*j\}}$]. behind ANAPH
"[The adults]$_i$ in the picture are facing away from us, with the children placed [$_{PP}$ behind themselves$_{\{i,*j\}}$]."

(39) [De volwassenen]$_i$ op het schilderij kijken van ons weg, met de kinderen [$_{PP}$ The adults on the painting look from us away with the children achter hen$_i$]. behind ANAPH
"[The adults]$_i$ in the picture are facing away from us, with the children placed [$_{PP}$ behind them$_i$]."

The use of the anaphoric *zich* vs. deictic *hem* is a function of the reported spatial perspective:

- *Zich* is used to denote the spatial perspective of the anaphoric antecedent. Thus, (38) is from the spatial perspective of the adults.
- *Hem* is used to indicate that of the utterance-context speaker or that of the antecedent. Thus, (39) is from the spatial perspective of the antecedent or of the observer/speaker.

☞ It is easy to see how the patterns in (38)-(39) could be accommodated within the syntactic perspectival model.

☞ The Dutch data present evidence for another locus of parametric variation for the perspectival model.

☞ Specifically, it shows that, for some languages, only certain types of perspective are linguistically relevant: in Dutch itself, it appears that spatial perspective alone is relevant, but that mental and perhaps also temporal perspective are not.

Similar patterns are observed for the Norwegian simplex anaphor *seg*.[4]

- Additional evidence for the relevance of spatial perspective in this language comes from the fact that *seg*-anaphora is only possible into locative PPs.
- In cases of binding into non-locational PPs, the complex *seg selv* is used.

This difference is observed even when the same preposition is used with locational and non-locational meanings (examples from Lødrup, 2007):

(40) *mot* (TOWARD, AGAINST):

[4]Thanks to Kristine Bentzen, Madeleine Halmøy and Per Erik Solberg for providing me with timely Norwegian judgments for earlier versions of this discussion.

a. Han$_i$ drar den mot seg$_{\{i,*j\}}$.
He[NOM] pull.PRS it towards ANAPH
"He$_i$ pulls it towards himself$_{\{i,*j\}}$."

b. Forbrukerråd-et argumenterer mot [seg selv]$_{\{i,*j\}}$
consumer.council-DEF argue.PRS against ANAPH self.
"[The consumer council]$_i$ argues against itself$_{\{i,*j\}}$."

(41) *om* (AROUND, ABOUT):

a. De$_i$ spredte en karakteristisk odør om seg$_{\{i,*j\}}$.
they[NOM] spread.PST a characteristic odor around ANAPH
"They$_i$ spread a characteristic odor around themselves$_{\{i,*j\}}$."

b. De$_i$ vil fortelle om [seg selv]$_{\{i,*j\}}$.
they[NOM] will tell about ANAPH self
"They$_i$ will tell about themselves$_{\{i,*j\}}$."

Under the perspectival model:

- We would expect locational PPs like (40a) and (41a) to instantiate a spatial perspective in its left periphery which would, however, not be present in non-locational ones, like in (40b) and (41b).
- We can attempt, then, to explain distributional differences between simplex and complex anaphoric forms in such PPs as a function of this difference in the availability of a perspective.

References

Baker, Mark C. 2008. *The syntax of agreement and concord*. United Kingdom: Cambridge University Press.

Bianchi, Valentina. 2003. On finiteness as logophoric anchoring. In *Temps et point de vue/Tense and Point of View*, ed. Jacqueline Guéron and L. Tasmovski, 213–246. Nanterre: Université Paris X.

Fillmore, Charles. 1997. *Lectures on deixis*. Stanford: CSLI.

Giorgi, Alessandra. 2010. *Towards a syntax of indexicality*. Oxford Studies in Theoretical Linguistics. Oxford: Oxford University Press.

Hellan, Lars. 1988. *Anaphora in Norwegian and the theory of grammar*, volume 32 of *Studies in Generative Grammar*. Dordrecht: Foris Publications.

Hicks, Glyn. 2009. *The derivation of anaphoric relations*. Linguistik Aktuell. John Benjamins.

Kaplan, David. 1989. Demonstratives: An essay on the semantics, logic, metaphysics, and epistemology of demonstratives and other indexicals. In *Themes from Kaplan*, ed. John Perry, Joseph Almog, and Howard Wettstein, 481–563. Oxford: Oxford University Press.

Koopman, Hilda, and Dominique Sportiche. 1989. Pronouns, logical variables, and logophoricity in Abe. *Linguistic Inquiry* 20:555–588.

Kratzer, Angelika. 2009. Making a pronoun: fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40:187–237.

Lewis, David. 1979. Attitudes de dicto and de se. *Philosophical Review* 88:513–43.

Lødrup, Helge. 2007. A new account of simple and complex reflexives. *Journal of comparative Germanic Linguistics* 10:183–201.
Maling, Joan. 1986. Clause bounded reflexives in Modern Icelandic. In *Topics in scandinavian syntax*, ed. L. Hellan and K. Koch Kristensen, 53–63. Dordrecht: Reidel.
Pica, Pierre. 1987. On the nature of the reflexivization cycle. In *Proceedings of NELS 17*, ed. J. McDonough and B. Plunkett. University of Massachusetts, Amherst, GLSA.
Reinhart, Tanya, and Eric Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24:657–720.
Reuland, Eric. 2001a. Anaphors, logophors, and binding. In *Long-distance reflexives*, ed. Peter Cole, Gabriella Hermon, and C.-T. James Huang, 343–370. London: Academic Press.
Reuland, Eric. 2001b. Primitives of binding. *Linguistic Inquiry* 32:439–492.
Reuland, Eric. 2006. Icelandic logophoric anaphora. In *The Blackwell companion to syntax*, ed. M. Everaert and H. van Riemsdijk, volume II, 544–557. Oxford: Blackwell.
Rizzi, Luigi. 1990. On the anaphor-agreement effect. *Rivista di Linguistica* 2:27–42.
Rooryck, Johan, and Guido vanden Wyngaerd. 2011. *Dissolving binding theory*. Oxford Studies in Theoretical Linguistics. Oxford: Oxford University Press.
Schlenker, Philippe. 2003. A plea for monsters. *Linguistics and Philosophy* 26:29–120. Kluwer Academic Publishers.
Sigurðsson, Halldór Ármann. 1990. Long distance reflexives and moods in Icelandic. In *Modern Icelandic syntax*, ed. Joan Maling and Annie Zaenen, 309–346. New York: Academic Press.
Sigurðsson, Halldór Ármann. 2004. The syntax of person, tense, and speech features. *Italian Journal of Linguistics* 16:219–251. Edited by Valentina Bianchi and Ken Safir.
Sigurðsson, Halldór Ármann. 2010. Mood in Icelandic. In *Mood in the languages of Europe*, ed. Björn Rothstein and Rolf Thieroff, 33–55. Amsterdam: John Benjamins.
Speas, Margaret. 2004. Evidentiality, logophoricity and the syntactic representation of pragmatic features. *Lingua* 114:255–276.
Speas, Peggy, and Carol Tenny. 2003. Configurational properties and point-of-view roles. In *Asymmetry in grammar*, ed. Anna Maria Di Sciullo, volume I: Syntax and semantics, 315–344. Amsterdam: John Benjamins.
Sundaresan, Sandhya. 2012. Context and (co)reference in the syntax and its interfaces. Doctoral Dissertation, University of Tromsø and University of Stuttgart, Tromsø.
Thrainsson, Hóskuldur. 1976. Reflexives and subjunctives in Icelandic. In *Proceedings of NELS*, ed. A. Ford, J. Reighard, and R. Singh, volume 6, 225–239. Amherst, MA: UMass, Amherst.
Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11:203–238.
Woolford, Ellen. 1999. More on the anaphor agreement effect. *Linguistic Inquiry* 30:257–287.