Perspective is syntactic: evidence from anaphora

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1 Introduction

The goal of this paper is to argue that perspective, expressed along the spatio-temporal and mental dimensions, is syntactically motivated. To this end, I present evidence from a linguistic phenomenon where grammatical perspective has long been observed to play a central role — namely, non-local anaphora (a cover-term not only for long-distance anaphora and backward anaphora but also for logophora). The evidence that I provide comes primarily from Tamil, a language of the Dravidian family, spoken predominantly in South India. Non-local anaphora in Tamil, like in Icelandic, Italian, Japanese and in its fellow Dravidian language Malayalam, is perspective-driven: i.e. the antecedent of a successfully bound anaphor must denote a mental or spatio-temporal perspective-holder toward the minimal proposition containing the anaphor. However, unlike the other languages mentioned here, Tamil provides compelling evidence in the form of verbal agreement that the perspective that regulates anaphoric dependencies is syntactically represented. In particular, I will argue that the agreement marking that obtains on the clausemate verb of the anaphor in Tamil, when this anaphor occurs in nominative case (the case that generally feeds agreement), seems to be anomalously triggered, not by the anaphor or by its antecedent, but by a silent perspectival pronoun local to the verb. Assuming that agreement is a morphosyntactic process, such a thesis, if correct, then leads to the conclusion that perspective must be syntactically (i.e. structurally and featurally) represented.

I will additionally propose that this perspectival pronoun plays a central role in deriving the perspectival nature of anaphoric dependencies in Tamil and other languages, proposing that it mediates the relationship between the anaphor and its antecedent, coreferring with them in different ways. The pronoun's relationship with the anaphor is distinguished by its being local: as such, it enters a formal (i.e. syntactic) and semantic

binding dependency with it. However, the antecedent of the anaphor is not local to the anaphor or to the pronoun: thus, the pronoun-antecedent relationship is a pragmatic and semantic one, not a formal one. Non-local anaphora is infamous for its recalcitrant behavior which resists a unified analysis: certain properties, like the crosslinguistically robust anti-locality constraint on anaphoric antecedence, suggest that the dependency is structurally regulated; but yet others, like the fact that the antecedent of the anaphor need not c-command the anaphor, or that minimality restrictions on antecedence are not obeyed, or the non-locality itself, or the fact that discourse-pragmatic factors such as perspective or empathy govern choice of antecedent, suggest that structure does not play a role after all. A two-stage model of non-local anaphora such as that I propose here, with one stage being purely formal/structural, and the other being discourse-pragmatic, captures this dual syntactic and discourse-pragmatic nature of perspectival anaphora.

The model of perspectival anaphora developed here also has interesting consequences for the role and nature of perspective in grammar more generally. Perspective-shift is structurally distinguished from context-shift (understood in the Kaplanian sense), though I argue that there are similarities. A given predicate can express at most one perspective. This is modelled by saying that the extended projection of a predicate has a unique "perspectival center": a structurally represented locus of perspectival information along the mental and/or spatio-temporal dimensions. There also emerges a very tight connection between the lexical-conceptual properties of a predicate and the kind of perspective (if any), it denotes, with different dimensions of perspective (mental vs. spatial vs. temporal) emerging as a function of the varying nature and category of selecting predicate involved in each case.

The paper is organized as follows. I commence the discussion in Section 2 with a brief crosslinguistic overview of the phenomenon of perspectivally driven anaphora: we will examine both the core properties that are common to perspectival anaphors across languages and the ways in which these properties may vary crosslinguistically. I will also illustrate the problematic dual nature of perspectival anaphors, mentioned briefly above: i.e. their curious mix of discourse-pragmatic and syntactic characteristics which renders an analysis in terms of discourse-pragmatics alone or in terms of syntax alone sub-optimal. Section 3 then zooms in on non-local anaphora in Tamil illustrating, in particular, the properties that characterize it as being perspectival with respect to the various diagnostics discussed in the previous section. I present the core data in Section 4, arguing that verbal agreement triggered in the scope of a successfully bound anaphor in Tamil indicates the presence of an additional nominal in the local clause of the anaphor. In Section 5, I propose that this nominal is a silent perspectival pronoun that mediates

the relationship between the anaphor and its antecedent. Under the architecture of generative grammar being considered here, this has the consequence that grammatical perspective must be syntactically motivated. This then paves the way for the two-stage, cross-modular approach to perspectival anaphora described above. Section 6 concludes.
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2 Background: perspectival anaphora

I use the moniker "perspectival anaphora" as a cover-term for all anaphoric dependencies (i.e. dependencies involving nominals that lack inherent reference) that are regulated by their sensitivity to grammatical perspective, defined along the mental, spatial and/or temporal dimensions. Below, I present some of the background on perspectival anaphora and also discuss why this phenomenon has long posed such a unique challenge for generative linguists seeking to provide a unified analysis for its curious medley of discourse-pragmatic and syntactic properties.

2.1 Perspectival anaphora: core properties

The notion of perspective is perhaps typically invoked in the context of logophoric dependencies, the term "logophor" originally coined by Clements (1975) to denote certain designated pro-forms, originally observed in African languages, which refer to entities "whose speech, thoughts, feelings, or general state of consciousness are reported" (Clements 1975, 141). An example containing such a pro-form is given below from Tuburi, a language spoken in parts of Chad (Sells 1987, 447); the plural logophor *sā:rā*, marked in boldface below, represents the mental perspective of the sayer, the matrix subject "they":

(1) à (ríŋg) wò gā tí **sā:rā** tʃÍ **sā:rā**
pro (say) PL COMP head LOG hurt LOG
"They$_i$ said [$_{CP}$ that they$_i$ had headaches]."

However, the term has since been appropriated to refer to structures where the anaphor seems to corefer with a nominal that is not in the same sentence as itself, but denotes a salient individual in the larger discourse, as in the English example from Jane Austen's *Emma* (Austen 1816, Chapter XVIII, 321) in (2) below:

(2) "With Tuesday came the agreeable prospect of seeing him again, and for a longer time than hitherto; of judging of his general manners, and by inference, of the

meaning of his manners towards **herself**; of guessing how soon it might be necessary for her to throw coldness into her air . . . "

In (2), which is set in the free indirect discourse style, a narrative structure that involves a mixture of direct and indirect speech, made from the perspective of a 3rd-person narrator (Banfield 1982, Schlenker 2004), the antecedent of 'herself' – namely 'Emma' is not in the same sentence as the logophor but is part of the larger narrative. Crucially, the narrative containing the logophor is made from the mental perspective of the individual that this antecedent denotes — namely the novel's protagonist, Emma. Similar instances of extra-sentential logophoric reference are illustrated in the Malayalam and Icelandic free indirect discourse excerpts in (3) and (4), respectively:

(3) Aarum sahaayik'k'illa enna Raaman-a manassilaayi taan ini
No one will.not.help that Raman-DAT realized. ANAPH[NOM] from now on
ottak'k'a aana. Tanta bhaarya poolum tan-ne upeeksikkum.
alone is. ANAPH-GEN wife even ANAPH-ACC will abandon
"Raman$_i$ realized that no-one would help. Self$_i$ was alone from now on. Even [self's$_i$ wife]$_j$ would abandon self$_{i/*j}$"

(4) Formaðurinn$_1$ varð óskaplega reiður. Tillagan væri avívirðileg. Væri
the chairman became furiously angry. the proposal was.SBJV outrageous. was.SBJV
henni beint gegn sér$_1$ persónulega?
it aimed against ANAPH personally?
"The chairman became furiously angry. The proposal was outrageous. Was it aimed at him personally?"

Interestingly enough, it was observed in the literature that logophors (in the classic sense of (1) as well as in the extended one of (2)) were not the only ones that could be regulated by perspective in this manner. "Long-distance anaphora" — i.e. dependencies involving pro-forms that lacked inherent reference and needed to be bound by another nominal in the same sentence (albeit, crucially, not in the same local clause) — also seemed to be perspectival. This is particularly strikingly illustrated in the minimal pair below from Icelandic (taken from Reuland 2001):

(5) 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]."

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

Reuland (2001, p. 345), describing the sentences in (5)-(6), reports that:

> "The difference in acceptability between [(5)] and [(6)] can be attributed to the fact that in [(5)] 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 [(6)], 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 antecedent ('the child') of the anaphor must denote an individual who holds a mental perspective toward the proposition containing the anaphor. It denotes such a perspective-holder in (5), but not in (6), thus may serve as an antecedent in the former but not the latter. Similar data showing the relevance of mental perspective in long-distance anaphora have been reported for a range of other languages (see e.g. Koopman and Sportiche 1989, Pearson 2013b, Kuno 1987, Oshima 2007, Bianchi 2003, Giorgi 2010, Jayaseelan 1997, for data and discussion on Abe, Ewe, Japanese, Italian, Malayalam, respectively).

Nevertheless, mental perspective is not the only kind of grammatical perspective that is privileged with respect to anaphora. Long-distance anaphoric dependencies in languages like Norwegian and Dutch seem to be governed by their sensitivity to spatial perspective. Rooryck and vanden Wyngaerd (2011) report that, in Dutch, the use of the anaphor *zich* vs. the deictic pronoun *hem* is a function of whose spatial perspective is being reported. The former is used to denote the spatial perspective of the anaphoric antecedent whereas the latter is used to indicate that of the utterance-context speaker or that of the antecedent (Rooryck and vanden Wyngaerd 2011, pp. 266-7). This yields minimal pairs like that in (7)-(8). (7) is from the spatial perspective of the adults whereas (8) is from the spatial perspective of the antecedent or of the observer/speaker. Crucially, this regulates the choice of pronoun vs. anaphor in each case: the use of the anaphor *zich* is only licit in (7) when the antecedent actually also denotes the spatial perspective holder:

(7) [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$_{\{i,*j\}}$]."

(8) [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$_i$]."

In the rest of the paper, I label all pro-form dependencies where the antecedence of the pro-form is regulated by perspective, in the manner illustrated above, as instances of "perspectival anaphora" and the pro-form in question in each case as a "perspectival anaphor".[1]

There is one final definitional point that must be mentioned — and this is the observation (see for instance Schlenker 2004) that perspectival anaphors do not seem capable of being anteceded by nominals denoting utterance-context participants — i.e. by rigid Kaplanian indexicals (Kaplan 1989), independent of whether these denote perspective-holders or not. Regardless of how this is modelled (Schlenker 2004, suggests that this be hard-coded as a presuppositional restriction — modelled as a partial function — into the lexical entry of a perspectival anaphor, for instance) — we should take this descriptively to mean that while perspective-holding is a *necessary* condition on anaphoric antecedence, it is not a *sufficient* condition on such antecedence.

Given the discussion above, the core properties of perspectival anaphora crosslinguistically are thus as summarized in (9) below:

(9) **Perspectival anaphora - core definitions:**
In every instance of perspectival anaphora, the antecedent of the anaphor must denote a mental or spatio-temporal perspective-holder with respect to some predication that the anaphor must be properly contained within. Such perspective-holding is thus a necessary condition on anaphoric antecedence.
However, perspective-holding is not a sufficient condition on anaphoric antecedence. 1st- and 2nd-person pronouns, denoting utterance context *Author* and *Addressee* respectively, cannot antecede such anaphors even if they denote perspective-holders as defined above.

[1] I.e. it is irrelevant for the purposes of this definition whether the antecedent is in the same sentence as the pro-form or not, and whether the pro-form itself is technically labelled "anaphor" or "logophor". As we will see, the unified analysis that I will develop in the course of this paper renders such distinctions unnecessary.

2.2 Theoretical recalcitrance

Although the central role of perspective with respect to anaphora i undeniable, what is far less clear (and less agreed upon) is how this involvement should be modelled in grammar. There is a fundamental analytic divide in the literature between conceptual and structural approaches to perspectival anaphora.

The conceptual camp (perhaps the more traditional view) holds that the involvement of perspective be treated as an extra-grammatical (specifically, a discourse-pragmatic) matter and is motivated by considerations like the following. One of the reasons for this is a tacit assumption that discourse-pragmatic notions like "perspective" do not belong in the domain of syntax proper but are peripheral to it in some respect. The other reason is that perspectival anaphora seems to undermine some of the cornerstones of generative theories (e.g. in frameworks like GB and Minimalism) of structural wellformedness – making a syntactic analysis seem rather far-fetched. In cases of long-distance anaphora, as in Icelandic (5), the antecedent is, by definition, not local to the anaphor. Given that syntactic relationships between any two objects are held to be fed by locality in the syntax, it is clear right off the bat that such structures pose a non-trivial challenge. (Relativized) Minimality (Rizzi 1990b) is another structural well-formedness condition that such dependencies seem to violate. In multiply embedded sentences, the anaphor may be anteceded by a nominal across another one that is closer to it, in apparent blatant violation of Relativized Minimality. In such sentences, there is often also more than one choice for perspective-holder, thus more than one potential antecedent. In such cases, the choice of antecedent is actually indeterminate: i.e. the choice of antecedent may be licitly changed, yielding a difference in the interpretation but not in the grammaticality. Under a theory where syntactic dependencies are deterministically mapped out, it is unclear how such genuine optionality is to be modelled.

In so called "backward binding" constructions (Minkoff 2003), the antecedent of the perspectival anaphor doesn't even need to c-command it on the surface. Such dependencies always involve psych-predicate structures (Beletti and Rizzi 1988), with the perspective-holder denoting antecedent also referring to the experiencer of the psych-predication — as illustrated below:[2]

[2]One could, of course, claim that the surface objects of psych-predicates were (c-commanding) subjects at some point in the derivation (in D-structure, if framed in GB terms) and that anaphors may target D-structure or S-structure antecedents — as has been proposed by Beletti and Rizzi (1988). But even this isn't entirely satisfactory — for instance, how is one to reconcile the idea that binding is an LF-phenomenon (as assumed by both movement and relativized SUBJECT approaches) with the idea that the anaphor may target its D-structure antecedent? And under a predominantly derivational rather than representational system like Minimalism, how is a D-structure vs. S-structure difference in subjecthood to be formally

(10) **"Backward binding":**

a. [$_{CP}$ Taan$_{\{i,*j\}}$ waliya aaḷ aana enna] Raman-a$_i$ tooṉṉi.
ANAPH[NOM] great man is that Raman-DAT occurred/seemed
"It seemed to Raman$_i$ [$_{CP}$ that he$_{\{i,*j\}}$ was a great man.]" (**Malayalam**, Jayaseelan (1997))

b. La-propria moglie preoccupa molto Gianni.
self's wife worries a lot Gianni
"Gianna is worried by self's wife." (**Italian**, (Giorgi 2006))

c. [$_{CP}$ Yosiko ga zibun$_i$ o nikundeiru koto] ga Mitiko$_i$ o zetuboo e
Yosiko SBJ ANAPH$_i$ OBJ be hating COMP] SBJ Mitiko$_i$ OBJ desperation to
oiyatta.
drove
"That Yosiko hated her$_i$ drove Mitiko$_i$ to desperation."
(**Japanese**, Sells (1987))

d. That slanderous article about herself$_i$ tipped Sue$_i$ over the edge. (Minkoff 2003)

Finally, the problem with logophoric relationships like those in English (2), Malayalam (3), and Icelandic (4) above is, if anything, even more challenging. Here, the antecedent of the perspectival anaphor is not even in the same sentence as the anaphor. Simply put, syntactic dependencies are set up to be sentence-bounded; it is unclear, therefore, how to model a dependency that seems to transgress a sentence boundary in syntactic terms.

Given these seemingly insurmountable issues, the obvious solution would seem to be to give up on a syntactic analysis for perspectival anaphora altogether and to pursue a purely non-structural discourse-pragmatic analysis instead. The problem is that the role of structure cannot be dismissed entirely: its relevance already makes itself known in one interesting way. There is a robust and systematic **anti-locality** effect observed with most perspectival anaphors crosslinguistically. That is, perspectival anaphors resist being bound clause-internally — a property that has been termed a "Condition B effect" in the literature (Reinhart and Reuland 1993, Koster and Reuland 1991). Thus, reflexives (understood as anaphors that *must* be bound by a co-argument) are either impossible or rare (see Sundaresan To Appear, for discussion of this point). Given that locality is a *structural* concept, the sensitivity to locality entails sensitivity to structure, by transitivity.

encoded? Finally, what is the relevance of all this to the thematic status (psych vs. non-psych) of the predicate?

Motivated in part by such observations[3], the structural camp (and here I am talking only about literature within the generative frameworks) — characterized by analyses in the GB era such as those of the movement approach to long-distance anaphora in Chomsky (1986a), Pica (1987), Huang and Tang (1991) and those of the relativized subject hypothesis proposed in Manzini and Wexler (1987) and Progovac (1993) — argues that the involvement of perspective in anaphoric dependencies be motivated already in the syntax, the generative module that feeds into the form (PF) and meaning (LF) interfaces of grammar. The other kind of argumentation for a structural treatment is a weaker one — namely that, in many cases, perspectival anaphora *cannot* be understood in terms of semantic/pragmatic considerations. For instance, Koopman and Sportiche (1989) argue that perspective must be syntactically instantiated in the regulation of anaphora in the Kwa language Abe because the types of verbs that select logophoric complements cannot be straightforwardly distinguished in terms of their lexical meaning: rather, they all have the property that they select a proposition with a particular kind of overt complementizer. Sells (1987) and Baker (2008) conclude the same, based on similar types of data from other languages (Tuburi and Slave, respectively). Of course, underlying the latter type of reasoning is again the assumption that discourse-pragmatic sensitivity and structural sensitivity are incompatible with one another.

Here, I will argue that the structural view is correct after all — but for me, this will crucially not involve relinquishing the notion of discourse-pragmatic involvement in perspectival anaphora. Rather, it will involve *enriching* the syntax with information that feeds into the discourse-pragmatic module: thus perspectival anaphora may be influenced by both discourse-pragmatic and structural conditions, at different stages of the grammatical derivation. Evidence for this position comes from perspectival anaphora in Tamil, the properties of which are described in the section below.

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

Before diving into the data that will form the basis of the argument that grammatical perspective is syntactically instantiated, it is important to show that non-local anaphora in Tamil is indeed perspective-driven, in the manner described in (9) above and, furthermore, that it is characterized by the theoretically recalcitrant dual syntactic and prag-

[3]And in part by other, actually fallacious ones, like the so-called "subject orientation" — namely the idea that perspectival anaphors must be anteceded by syntactic subjects and not objects — a generalization that has, however, been shown to be neither necessarily nor sufficiently true, with many systematic exceptions being attested crosslinguistically (see Giorgi 2006, a.o. for discussion).

matic properties described above for perspectival anaphors in other languages. This is the concern of the current section.

3.1 Anaphora in Tamil is perspectival

The Tamil anaphor *taan* is a morphologically simplex anaphor. Its nominative form, typically used when it occurs in syntactic subject position, is *taan*. All other cases, such as accusative, dative, genitive, comitative, ablative, instrumental, locative, and genitive, involve suffixes which attach to the oblique stem of the anaphor, which is shortened to *tan-*. Henceforth, I will use *ta(a)n* as a cover-term for its various surface forms. In addition to these case-suffixes, *ta(a)n* can also be marked for number: the singular is unmarked, and the plural is marked with the morpheme *-ga*l̩, which occurs sandwiched between the nominal stem and case suffixes, if any. Moving on to its antecedence properties, *ta(a)n* can only take 3rd-person antecedents — the gender of the antecedent (masculine, feminine or neuter) is irrelevant.[4] As may perhaps be expected from the discussion of perspectival anaphora above, antecedence by indexical participants of the (Kaplanian) utterance context are strictly ruled out rendering sentences like the following ungrammatical:

(11) **Ban on antecedence by *Author∗* and *Addressee∗*:**[5]

a. * Naan$_{Auth*}$ [$_{CP}$ Seetha$_i$ tann-æ$_{\{Auth*,i\}}$ paar-tt-aal̩- ŭnnŭ] so-nn-een.
I[NOM] Seetha[NOM] ANAPH-ACC see-PST-3FSG- COMP say-PST-1SG
"I$_{Auth}$ said [$_{CP}$ that Seetha loved me$_{Auth*}$.]" (Intended)

b. * Nii$_{Addr*}$ [$_{CP}$ pasaŋ-gal̩$_i$ tann-æ$_{\{Addr*,i\}}$ aḍi-tt-aaŋ- gal̩-ŭnnŭ] nene-tt-aaj.
You[NOM] boys-PL[NOM] ANAPH-ACC hit-PST-3M- PL-COMP think-PST-2SG
"You$_{Addr*}$ thought [$_{CP}$ that the boys hit you$_{Addr*}$.]" (Intended)

The anaphor *ta(a)n* in Tamil co-exists with other pro-forms (I classify these as pronouns) which differ from it in being able to refer deictically. The perspectival nature of *ta(a)n* can be most readily distinguished in comparison with such pronouns which it occurs in apparent free variation with, as inside possessive PPs in the following sentences:

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

[4] This is strictly natural gender in Tamil, grammatical gender not being marked in this language.

[5] I follow standard parlance in the literature on Kaplanian indexical shift (see e.g. Schlenker 2003, a.o.) in using the notations *Author∗* and *Addressee∗* to represent the *Author* and *Addressee* of the utterance context. Thus, *Author∗* = *Author*($c*$), and *Addressee∗* = *Addressee*($c*$), for $c*$ = *Utterance-Context*.

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

Although both (12) and (13) are perfectly licit, there is a systematic interpretive difference between the two. In (12), the "left-ness" of the snake is evaluated from Raman's spatial perspective; in (13), however, this leftness is evaluated from the spatial perspective of the (utterance-context) speaker or is underspecified (with respect to the perspective of the speaker vs. Raman). But the anaphor *ta(a)n* may only be licitly used in (12), where the spatial perspective-holder is the individual denoted by the antecedent and the antecedent alone. These examples are strikingly reminiscent of the ones given for Dutch in (7) and (8) and show, just like those did, that the antecedent of the anaphor must denote a perspective-holder with respect to some predication containing the anaphor.

Similarly, data involving psych- and attitude predications as well as across sentences (i.e. logophora) may be adduced to show the relevance of mental perspective to Tamil anaphora. (14) depicts a long-distance anaphoric dependency while (15) illustrates a logophoric dependency involving *ta(a)n* set inside a free-indirect discourse narrative structure:

(14) Vivek$_i$ [$_{CP}$ taan$_{\{i,*j\}}$ Seetha-væ$_j$ paar-tt-adaagæ] namb-in-aan.
Vivek[NOM] ANAPH[NOM] Seetha-ACC see-PST-NMLZ believe-PST-3MSG
"Vivek$_i$ believed [$_{CP}$ that he$_{\{i,*j\}}$ saw Seetha$_j$]."

(15) Seetha-vŭkkŭ$_i$ oṉṉum purija-læ. Taan$_{\{i,*j\}}$ maṭṭum een ivvaḷavŭ
Seetha-DAT anything understand-NEG. ANAPH.NOM alone why this.much
kašṭappaḍa-ṇum? Seetha$_i$ didn't understand at all. Why must she$_{\{i,*j\}}$ alone suffer-must?
suffer this much?

In both (14) and (15), it can be easily shown that the choice of antecedent for *ta(a)n* is directly governed by its ability to serve as a perspective-holder — here defined along the mental dimension — toward some predication containing *ta(a)n*.

It can thus be taken to be uncontroversial that anaphora in Tamil is perspectival in the sense defined in (9) above. Furthermore, unlike languages like Icelandic and Italian where perspective-holding with respect to anaphora seems to be restricted to the mental plane (Sigurðsson 1991, Giorgi 2006, respectively, a.o.), or like Dutch or Norwegian (Rooryck and vanden Wyngaerd 2011, Lødrup 2007, respectively) where it is restricted to the spatial one, perspective-holding in Tamil may be either mental or spatial — the choice thereof seeming to be a function (among potentially others) of the lexical-conceptual properties of the predicate that takes the antecedent as an argument.

3.2 Schizophrenic syntactico-pragmatic behavior

It was noted in Section 2.2 that perspectival anaphora crosslinguistically is characterized by properties that make it genuinely difficult to analyze in purely syntactic terms. Here, I present evidence to show that perspectival anaphoric dependencies in Tamil show the same apparent structural recalcitrance.

Thus, long-distance anaphors in Tamil violate locality and, frequently, minimality and antecedence determinacy. In (16), *Krishnan* antecedes *ta(a)n* across several other DPs that are structurally closer to the anaphor, at least one of which (namely *Raman*) also readily qualifies as a potential antecedent to it. Being two clauses higher, *Krishnan* is also clearly non-local to the clause containing *ta(a)n*. Thus, (16) attests to apparent violations of non-locality and non-minimality and also to antecedence optionality. The latter is more clearly illustrated in (17): here, either *Krishnan* or *Raman* may antecede *ta(a)n* as the referential indices indicate. Backward binding structures involving psych predications show us apparent violations of c-command: in (18), *Raman* can antecede *ta(a)n* despite being embedded as a possessor DP inside the experiencer – thus clearly not c-commanding the anaphor. Finally, logophoric dependencies such as that illustrated in (19) show that the antecedent doesn't need to be in the same sentence as the anaphor – but can be elsewhere in the salient discourse:

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

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

(17) **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$_{\{i,j\}}$]"

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

[$_{CP}$ [$_{DP}$ Taan$_{\{i,j\}}$ avvaḷavŭ eeɻæ-jaaga irŭnd-adŭ] [$_{DP}$ Raman-ooɖæ$_i$
ANAPH[NOM] so poor-ADJ be-PST-3NSG.NOM Raman-GEN
aɳɳaav-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 [$_{DP}$ [$_{DP}$ Raman$_i$]'s brother]$_j$."

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

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

The larger take-home message from empirical patterns such as these is the same as that before: structures such as these pose a genuine challenge to analyses that seek to derive these dependencies via purely formal (i.e. structural) mechanisms. However, here again, as before, the role of structure cannot be dismissed out of hand. As has been noted elsewhere (see e.g. Annamalai 1999, Schiffman 1995), Tamil *ta(a)n* cannot be locally bound as is.[6] Reflexives (i.e. co-argument anaphora) in Tamil typically require special marking in the form of a morpheme *kol* which is suffixed to the clausemate verb.[7] A similar situation seems to hold in the related Dravidian language Kannada, as discussed in detail in Lidz (2001; 2004, et seq). Regardless of how these structures are to be analysed (see again Sundaresan To Appear, for discussion), the fact that reflexives (and reflexives alone) — instantiating the only co-argument dependency among types of anaphora — require special marking shows that perspectival anaphora in Tamil is sensitive to the presence of structure. This allows us to view it as a parametrized, morphological reflex of anti-locality.

To sum up, then, we are left with the same mixed bag of properties in the case of perspectival anaphors in Tamil, as we were with the others: i.e. dependencies involving seemingly unruly syntactic behavior that nevertheless show sensitivity to structure (specifically to syntactic locality) and are simultaneously regulated by their sensitivity to discourse-pragmatic perspective.

4 Insights from Tamil verbal agreement

This section presents and discusses the core data of the paper. The main goal is to argue, on the strength of evidence from verbal agreement triggered in the scope of the nominative anaphor *taan* in Tamil, that grammatical perspective is represented in the syntax, in the form of a silent pronoun (or *pro*): i.e. it is visible to and can participate

[6] This seems to be the case for standard dialects of Tamil, in any case.

[7] Systematic exceptions to this rule involve certain types of psych predication.

in syntactic processes, including but not limited to anaphora. On the strength of this conclusion, I will propose a two-step model of perspectival anaphora whereby *only one stage* of the perspectival anaphoric dependency is instantiated in the syntax proper, with the help of this perspectival pronoun; the other is not implemented in the syntax at all but at the broader interpretive and discourse-pragmatic levels. Such a model allows us to elegantly capture the dual, seemingly schizophrenic nature of perspectival anaphora in Tamil and other languages, described in some detail above.

4.1 Verbal agreement under *ta(a)n* in Tamil

In Tamil, verbal agreement for person, number, and gender (i.e. ϕ-agreement) is typically triggered by a local nominal in the nominative. A straightforward instance is illustrated below — the matrix verb reflects 3MSG agreement and is triggered by the nominative pronoun *avan* ('he') whereas the embedded verb, marked 2SG, matches the 2SG features of the embedded nominative subject *nii* ('you'):

(20) [Nii paris-æ tookkapoo- r-æ-nnŭ] avan namb-in-aan.
you[NOM] prize-ACC lose.go- PRS-2SG-COMP he[NOM] believe-PST-3MSG
"He$_j$ believed [$_{CP}$ that you would lose the prize]."

But when the nominative nominal is the anaphor *taan*, strangeness ensues with respect to the agreement on its clausemate verb. Consider the sentences below:

(21) Aval$_i$ [$_{CP}$ avan$_j$ [$_{CP}$ taan$_{\{i,*j,*k\}}$ paris-æ tookkapoo-gir-**aa**ḷ-nnŭ]
she[NOM] he[NOM] ANAPH[NOM] prize-ACC lose.go-PRS-3FSG-COMP
namb-in-aan-ŭnnŭ] [pasaŋ-gaḷ-kiṭṭæ]$_k$ kaaṭṭ-in-aaḷ.
believe-PST-3MSG-COMP boy-3PL-ALL show-PST-3FSG
"She$_i$ showed [the boys]$_k$ [$_{CP}$ that he$_j$ believed [$_{CP}$ that herself$_i$/*himself$_j$/*themselves$_k$ would lose the prize]]." (literal)

(22) Aval$_i$ [$_{CP}$ avan$_j$ [$_{CP}$ taan$_{\{j,*i,*k\}}$ paris-æ tookkapoo-gir-**aan**-nnŭ]
she[NOM] he[NOM] ANAPH[NOM] prize-ACC lose.go-PRS-3MSG-COMP
namb-in-aan-ŭnnŭ] [pasaŋ-gaḷ-kiṭṭæ]$_k$ kaaṭṭ-in-aaḷ.
believe-PST-3MSG boy-3PL-ALL show-PST-3FSG
"She$_i$ showed [the boys]$_k$ [$_{CP}$ that he$_j$ believed [$_{CP}$ that himself$_j$/*herself$_i$/*themselves$_k$ would lose the prize]]." (literal)

(23) Adŭ$_i$ naḍandadæ-patti joosi-čč-adŭ. Taan$_i$ een kašṭappaṭṭ-iru-kk-**aa**ḷ?
It[NOM] happening-ACC-about reflect-PST-3NSG. ANAPH[NOM] why suffer-PRF-PRS-3FSG
"It$_i$ [e.g. the child] reflected about what had happened. Why had itself$_{\{i,*j\}}$ suffered?" (literal)

When the intended antecedent is *ava*ɭ (‘she’) (as in (21)), the agreement under *ta(a)n* is 3FSG. (22) varies minimally from (21) with the only difference lying in the choice of antecedent for *ta(a)n*— the medial subject *avan* (‘he’) instead of the matrix subject *ava*ɭ (‘she’). Here, the verbal agreement under the anaphor tracks this choice, with the agreement changing to 3MSG to (22). In (23), *ta(a)n* refers logophorically to the extra-sentential attitude-holder *adŭ*[8], but the agreement under *ta(a)n* must still reflect the ϕ-features of this antecedent: if *adŭ* were replaced by *avan* (‘he’), the agreement-marking in the following sentence would be 3MSG *-aan* instead. The agreement patterns above thus suggest the following:

(24) **Descriptive generalization:** Nominatives generally trigger agreement in Tamil. But when the anaphor *ta(a)n* occurs in the nominative, the agreement on the clausemate verb tracks the antecedent of *ta(a)n*.

4.2 Agreement is not triggered by the anaphor

Given that agreement is uniformly triggered by the subject elsewhere in this language, it is tempting to claim that the source of agreement under the subject anaphor is the anaphor itself. However, since the agreement triggered under *ta(a)n* may vary, this would be tantamount to proposing three different *ta(a)n*-s in (21)-(23). In a proper subset of these cases (in particular, when the clause in question is the complement of a speech predicate), the agreement under the anaphor may be 1SG, as illustrated in (25). Claiming that *ta(a)n* is the source of verbal agreement would thus entail positing that it is also a 1st-person indexical — something there is no independent evidence for:

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

Finally, there is highly robust crosslinguistic evidence showing that anaphors are incapable of triggering covarying ϕ-agreement (Rizzi 1990a, Woolford 1999, Tucker 2011, Sundaresan 2014, “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). This also argues against the idea that the source of agreement is the anaphor.

[8]This neuter form could be used in Tamil to denote a small child, for instance.

4.3 Agreement is not triggered by the antecedent

Another obvious candidate for the source of agreement, given the antecedent-tracking effect of the agreement, given in (24), is the antecedent of the anaphor. Following e.g. Kratzer (2009) and others, we might propose that this is a straightforward case of long-distance ϕ-feature transmission from the antecedent to the embedded verb in the *ta(a)n*-clause (perhaps via intermediate functional heads). But this is challenged by the fact that in Tamil NLA, the antecedent may be several clauses away, need not c-command the *ta(a)n*-clause and, in structures involving the logophoric use of *ta(a)n*, may be in a different sentence altogether (see again the sentences in (16)-(17).

Potentially even more compelling evidence against such a simple feature-transmission account comes from structures where the ϕ-features on verbal agreement (1SG) $\neq$ ϕ-features (3SG) on the antecedent , as in (25) above. (25) instantiates a special kind of structure involving the clausal complement of a speech predicate. The anaphor *ta(a)n* is the nominative subject of this complement; but the ϕ-agreement triggered under it is 1SG. The agreement pattern in these sentences seems superficially dissimilar to those seen in (21)-(23), where the verbal agreement simply matches the ϕ-features of the antecedent of *ta(a)n*. But if we look closer at the examples below, we see that (25) actually also obeys the antecedent tracking generalization described in (24):

(26) Raman$_i$ [$_{CP}$ Krishnan$_j$ [$_{CP}$ taan$_{\{j,*i\}}$ Seetha-væ kaadali-kkir-**een**-nnŭ]
Raman[NOM] Krishnan[NOM] ANAPH[NOM] Seetha-ACC love-PRS-1SG-COMP
so-nn-aan-nnŭ] kee⌊vipa-ʈʈ-aan.
say-PST-3MSG-COMP overhear-PST-3MSG
"Raman$_i$ overheard [$_{CP}$ that Krishnan$_j$ said [$_{CP}$ that he$_{\{j,*i\}}$ loves Seetha.]]"

(27) Raman$_i$ [$_{CP}$ Krishnan$_j$ [$_{CP}$ taan$_{\{i,*j\}}$ Seetha-væ kaadali-kkir-**aan**-nnŭ]
Raman[NOM] Krishnan[NOM] ANAPH[NOM] Seetha-ACC love-PRS-3MSG-COMP
so-nn-aan-nnŭ] kee⌊vipa-ʈʈ-aan.
say-PST-3MSG-COMP overhear-PST-3MSG
"Raman$_i$ overheard [$_{CP}$ that Krishnan$_j$ said [$_{CP}$ that he$_{\{i,*j\}}$ loves Seetha.]]"

The examples above illustrate that 1SG agreement only obtains when the antecedent of *ta(a)n* is the speaker of the immediately superordinate speech predicate, as in (26). In the minimally varying sentence (27), the antecedent of *ta(a)n* is the matrix subject *Raman* which is the AGENT of the non-speech predicate OVERHEAR — in this case, the agreement under *ta(a)n* still tracks the antecedent but may not be 1st-person.

Additional supporting evidence comes from number marking on the verb. When the agent of the speech predicate (which also serves as the antecedent of the anaphor) is

marked plural, the agreement on the verb under *ta(a)n* is 1PL not 1SG:

(28) Pasaŋ-gal$_i$ [taaŋ-gal$_{\{i,*j\}}$ ʤej-pp-**oom**/***aanga**l-ŭnnŭ] so-nn-aaŋ-gal.
boy-PL.NOM [ANAPH-PL.NOM$_i$ win-FUT-1PL/*3MPL-COMP] say-PST-3M-PL
"The boys said [$_{CP}$ that they$_{\{i,*j\}}$ would win]"

In short, such considerations show that the agreement "tracks" the anaphor's antecedent even in cases where its ϕ-features don't match those of the antecedent. A simple long-distance feature-transmission account of agreement triggered by the antecedent would find it difficult to explain such a mismatch.

In other words, the agreement on the clausemate verb of *ta(a)n* is not *directly* triggered by *ta(a)n* itself (though *ta(a)n* may play a mediating role in feature-transmission). This agreement is also not directly triggered by the antecedent of *ta(a)n*. Assuming further, with standard generative grammatical theories (like Minimalism, e.g. Chomsky 2001, et seq.) that (ϕ-)agreement is *always* inherited from a nominal by a functional head and is, furthermore, a morphosyntactic process that occurs under conditions of structural locality — yields the generalization in (29):

(29) The agreement-marking on the clausemate verb of subject *ta(a)n* is not triggered by the anaphor or by its antecedent, but by some *other* nominal in its local domain.

5 Structural perspective and two-stage anaphora

In this section, I will motivate and discuss the properties of this "other nominal" in detail. This nominal will be the central player of the two-stage model of perspectival anaphora that I will end up proposing here, mediating the relationship between the anaphor and its antecedent. I will also argue that it is perspectival and is represented in the syntax: assuming this is correct, this means then, that perspective is syntactically represented.

5.1 A silent, mediating pronoun

What is the identity and nature of this nominal? It must, of course, itself have valued ϕ-features so that it can trigger them on the verb; we don't see it overtly on the surface, so it must be silent. Finally, given that we are assuming that agreement involves a morphosyntactic dependency between two objects (formalized via an operation like Minimalist Agree, for instance) and given that such dependencies always operate under conditions of locality, this nominal must be syntactically local to (i.e. in the same clause as) the verb (or more precisely, the T head) that it triggers agreement on. Putting these

properties together, we arrive at the entirely intuitive conclusion that the nominal must be a silent pronoun or *pro* (i.e. a silent form of a pronoun like 'he', 'she', 'it' etc.) in the local clause of the verb.

This gets us some but not all of the way. To fill in the rest of the pieces of the puzzle, we must recall that:

(i) ϕ-agreement triggered under nominative *ta(a)n* always tracks the antecedent (i.e. not only in cases where its ϕ-features match those of the antecedent, but also in structures, like (25), where they don't).

(ii) this anomalous antecedent-tracking agreement only obtains when the clausemate subject is *ta(a)n*. In all other instances, we get straightforward subject-verb agreement, as illustrated below.

The most straightforward way to derive the antecedent tracking effect in (i) would be to have the *pro* that (putatively) triggers verbal agreement corefer with the antecedent of the anaphor. In the default scenario, the ϕ-feature sets of the two coreferring nominals are evaluated against the same (= typically the utterance) context. Thus, coreference between the two nominals entails ϕ-matching between them. More concretely, in a sentence like (21), the *pro* would corefer with the actual antecedent *ava*⌊ ('she' = 3FSG); since both *pro* and the antecedent are evaluated against the same evaluation context, coreference entails ϕ-matching, thus *pro* also has 3FSG features; this *pro* thus triggers 3FSG verbal agreement under nominative *ta(a)n*, and the agreement matches the ϕ-features of the antecedent by transitivity.

The situation in a sentence like (25) is more complex. Sundaresan (2012), for instance, labels the 1SG agreement on the embedded verb in such sentences "monstrous agreement", and presents independent evidence to show that it is due to Kaplanian indexical shift in the embedded clause. Assuming that this is correct, and ignoring for now the precise technical details of how indexical shift is to be formalized (an issue that remains unresolved in the literature, see von Stechow 2002, Schlenker 2003, Anand 2006, for some differing views on the matter) this would then essentially mean that the ϕ-features of the nominals in the shifted clause are evaluated against a different context (i.e. against the shifted context and not against the utterance context), while the ϕ-features of any other unshifted clauses are evaluated, by default, against the utterance context. Recall now that in a sentence like (25), *pro* (being, by assumption, local to *ta(a)n* and the 1SG verb) is part of the shifted clause, whereas the antecedent is part of the unshifted one. Thus, the ϕ-features of *pro* will be evaluated against the shifted

context whereas those of the antecedent will be evaluated against the utterance context. This has the important consequence that we get coreference between *pro* and the antecedent (and thus the antecedence-tracking effect with verbal agreement) without the added entailment of ϕ-matching between them.

The coreference relationship between *pro* and the antecedent that we have just argued for has the incidental consequence that it also implies a dependency between *pro* and the anaphor. After all, the antecedent, by definition, corefers with the anaphor, thus the *pro* which putatively corefers with *it* must, by transitivity, corefer with the anaphor as well. The observation in (ii) above independently reinforces this theoretical result demonstrating, in particular, that it is not enough to have the *pro* "talk" to the antecedent alone; it must be able to talk to the anaphor, as well.

To sum up the discussion so far, then, the silent pronoun (that triggers verbal agreement when *ta(a)n* occurs in the nominative) must enter into two sets of dependency: one with the antecedent of the anaphor (yielding the antecedent tracking effect described in (i)) and the other with the anaphor itself (yielding the connection between the anaphor and the antecedent and also (ii)). In other words:

(30) The silent pronoun in the local clause of the anaphor corefers with both the antecedent and the anaphor. It thus *mediates* the relationship between the anaphor and the antecedent and the anaphor, which thus refer to one another only indirectly, via this silent pronoun.

5.2 Enter grammatical perspective

Where does perspective fit into all this? Recall that the central property of anaphora in Tamil is that it is perspectival, defined in the sense of (9), repeated below:

(31) **Perspectival anaphora - core definitions:**
In every instance of perspectival anaphora, the antecedent of the anaphor must denote a mental or spatio-temporal perspective-holder with respect to some predication that the anaphor must be properly contained within. Such perspective-holding is thus a necessary condition on anaphoric antecedence.
However, perspective-holding is not a sufficient condition on anaphoric antecedence. 1st- and 2nd-person pronouns, denoting utterance context *Author* and *Addressee* respectively, cannot antecede such anaphors even if they denote perspective-holders as defined above.

The most elegant way to combine the insights in (30) and (31) would be to propose the following that the silent pronoun that mediates between the anaphor and its antecedent is itself a perspectival pronoun.

Let us now try to be precise about what a perspectival pronoun is. 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 now introduce the notion of a "*perspectival center*", defined as in (32):

(32) **The Perspectival Center**:

i. The *perspectival center* is a pronoun (here the mediating *pro*) that contains the coordinates pertaining to the time, location, world, and/or mental information of a salient perspective holder.

ii. Certain extended projections (or perhaps just predications) contain a perspectival center by virtue of what the predicates inherently "mean". E.g. an attitude predicate would select a complement that would contain a mental perspectival center, a spatial preposition would select one with a spatial perspectival center, and so on.

The mediating *pro* (which instantiates the perspectival center above) is associated with a perspectival syntax and semantics in the following sense. It gets its perspectival properties by virtue of occurring in a specific syntactic position: I propose that it occurs as the argument in the specifier of a functional head (call this "Persp"). Specifically, this Persp head assigns the *pro* in its specifier a "discourse role" (much like the Neo-Davidsonian Voice head assigns an Agent θ-role to the external argument in its specifier in a system like Kratzer (1996)). We may think of the perspective-holding discourse-role assigned to the *pro* by the Persp head as having the following formal denotation in the semantics: $\lambda x \lambda e.PerspHolder(e, x)$. Under the strict modular architecture of grammar (in the framework of Minimalism) I am assuming, however, the syntax is a blind computational module, thus is not the purview of meaning (or for that matter, of form) but of abstract, formal features. Thus, the perspectival *pro* is syntactically distinguished as being perspectival only in terms of an abstract feature: this feature is nothing but a pointer of sorts — an instruction to the semantics to interpret the *pro* as a perspective-holder, as per the formal denotation given above (and, where applicable, to the sound-component

to pronounce it in a certain way). It is in this sense that I am referring to the pronoun as being syntactically perspectival.

Interestingly, independent evidence at least as early as Koopman and Sportiche (1989) from anaphoric dependencies in Abe was adduced to propose the presence of a silent pronoun in the complementizer region of a clause. Other arguments for the structural representation of perspective have been made in Bianchi (2003), Speas (2004), Baker (2008), Giorgi (2010) and even more recently, evidence has been brought to bear from anaphora in Japanese (Nishigauchi 2014) and French (Charnavel 2015) to argue for a *pro*-based mediating perspectival analysis very similar to this one.

5.3 A two-stage model of anaphora

The state of affairs described in (30) sets the stage for a two stage model of anaphora, with the perspectival *pro* at the intersection. At the heart of this model is the intuition that, although this pronoun corefers with both the antecedent and the anaphor, the nature of its relationship with each is very different. The dependency between the *pro* and the anaphor is distinguished by being structurally local. The pronoun can thus enter into an abstract syntactic dependency with the anaphor (like Agree, see again Chomsky 2001, et seq.) which then feeds binding at the level of LF-semantics. This naturally yields coreference, since both the *pro* and the anaphor will end up being mapped onto the same individual in the evaluation context by the assignment function (Heim and Kratzer 1998).

The coreference between the *pro* and the antecedent of the anaphor is entirely different in nature. As we have seen, there are no (obvious) structural constraints placed on the distribution of the antecedent in Tamil (or Icelandic, or any of the other languages with perspectival anaphoric systems): 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 necessarily be non-structural. This relationship is, in fact, highly reminiscent of the kind of dependency termed "non-obligatory control" (in the sense of Williams 1980) – instantiated by sentences like (33)-(35), and defined as in (36):

(33) $[_{CP}$ EC_i to leave] would be Max_i's pleasure.

(34) $[_{CP}$ EC_{arb} to leave] would be a pleasure.

(35) She_i is relying on Max_j $[_{CP}$ $EC_{\{i,j\}}$ to get everything done].

(36) **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.

The descriptive parallels between (33)-(35) and the relationship between the antecedent and the clause containing (the putative) *pro* are striking: (33) above shows that the antecedent may follow the clause containing the controlled element and need not c-command it, just like in cases of "backward binding" as in (10) and (18) above; (34) shows that there need not be a syntactically represented antecedent in the sentence at all, as in structures involving logophora ((2)-(4) crosslinguistically and Tamil (15)) ; (35) shows that this antecedent is not uniquely determined, as in instances of perspectival anaphora involving antecedence optionality. Current ideas in the generative literature arguing that the controlled element in non-obligatory control dependencies is a silent deictic pronoun (or *pro*) (see e.g. Hornstein 1999, and more recently, Landau (2012)) further accentuate this parallel. For these reasons, it makes eminent sense to treat the relationship between the silent pronoun, that is in the local clause of the anaphor, and the antecedent of the anaphor as instantiating a type of non-obligatory control relationship. In particular, I propose that the antecedent non-obligatorily controls this pronoun.

At the same time, the domain of possible controllers for *pro* is restricted by the semantics of perspective-holding. In particular, it must be assumed that an antecedent can non-obligatorily control the *pro* only if it can denote a perspective-holder with respect to some predication that the *pro* (and also the anaphor) are contained within. We can think of this as a presuppositional restriction on the domain of possible controllers of *pro*: a nominal that happens to denote a perspective-holder will succeed in non-obligatorily controlling *pro*, and thus by transitivity in perspectivally anteceding the anaphor. A nominal that doesn't denote such a perspective-holder will simply fail to control the *pro* (due to a presuppositional failure), and thus will also not end up qualifying as an antecedent for the anaphor.

Of central importance is the notion, and this bears repeating, that there are *no* structural restrictions placed on the control relationship between the antecedent and the perspectival *pro*: the antecedent doesn't need to be local to the perspectival pronoun, doesn't need to c-command it or be minimal to it, and doesn't even need to be in the same sentence. The non-obligatory control dependency between the antecedent and the pronoun merely ends up ensuring that the end up denoting the same individual in the context of

evaluation — i.e. that they end up coreferring. This is, of course, exactly what we want.

At the same time, there *is* a structural component to the two-stage anaphor model: recall that the relationship between the silent perspectival pronoun and the anaphor, being local, is entirely structural in nature. The two stage model thus allows us to reconcile the seemingly schizophrenic nature of perspectival anaphora, since *every instance* of perspectival anaphora (logophoric, long-distance, backward etc) is restricted by both perspectival and syntactic factors. Perspectival anaphora, in other words, 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 an extended projection containing the anaphor.

(ii) A syntactic relationship between the anaphor and the perspectival pronoun in Spec, PerspP, which "stands in" for the antecedent of this anaphor in the anaphor's local phase.

5.4 Summary and sample derivations

I have argued on the strength of verbal agreement facts in Tamil that such agreement is triggered by a silent pronoun local to the verb (and to the anaphor *ta(a)n*). This pronoun is perspectival in the sense that it occurs in a designated structural position — as the specifier of a functional "Persp" head — and bears an abstract syntactic feature which is then interpreted in the semantics as a discourse-role of perspective-holding ($\lambda x \lambda e.PerspHolder(e, x)$). To explain the antecedent-tracking effect of the verbal agreement (yielding ϕ-matching in most cases and 1SG agreement on the verb in others), I argued that the silent pronoun must corefer with the antecedent, and proposed that this coreference is due to a relationship, purely non-structural, of non-obligatory control (Williams 1980). The perspectival pronoun also corefers with the anaphor — but this coreference is achieved through structural dependence. In fact, I have proposed that the *pro* is the true binder of the anaphor at LF and that they plausibly already enter into a formal dependency with one another in the syntax. The anaphor and its antecedent thus never enter into a direct relationship — only an indirect one, by transitivity, as a function of their independent direct relationships with the perspectival *pro*.

Consider now how a sentence involving long-distance anaphora like that in (21), repeated below, might be derived in this model:

(37) Ava]$_i$ [$_{CP}$ avan$_j$ [$_{CP}$ taan$_{\{i,*j,*k\}}$ paris-æ tookkapoo-gir-**aa**ɭ-nnŭ]
she[NOM] he[NOM] ANAPH[NOM] prize-ACC lose.go-PRS-3FSG-COMP
namb-in-aan-ŭnnŭ] [pasaŋ-gaɭ-kiʈʈæ]$_k$ kaaʈʈ-in-aaɭ.
believe-PST-3MSG-COMP boy-3PL-ALL show-PST-3FSG
"She$_i$ showed [the boys]$_k$ [$_{CP}$ that he$_j$ believed [$_{CP}$ that herself$_i$/*himself$_j$/*themselves$_k$ would lose the prize]]." (literal)

The perspectival *pro* occurs in the embedded clause in (37) — i.e. the same clause as the anaphor *ta(a)n*. It is non-obligatorily controlled by the matrix subject *avaɭ* ('she' = 3FSG) — this qualifies as a controller because it denotes a perspective-holder with respect to the embedded clause containing *pro* (and the anaphor). *Pro* must corefer with the controller but since the ϕ-features of both are evaluated against the utterance context, coreference entails matching ϕ-features in this case, yielding 3FSG also on *pro*. *Pro* thus triggers 3FSG agreement on embedded clausemate verb, yielding the antecedent-tracking effect of agreement that we see on the surface. The second stage of the anaphoric dependency is that holding between *pro* and the anaphor. As discussed, the two nominals enter into a syntactic dependency which is interpreted in the semantics as a binding relationship, with *pro* binding the anaphor. The two therefore necessarily denote the same individual in the evaluation context — which is, by transitivity, also the entity denoted by the controller of *pro* (i.e. *avaɭ* or 'she'). This is how the controller becomes construed as the antecedent of the anaphor — the anaphor and the antecedent corefer, but only indirectly, due to their independent associations with the perspectival pronoun.

In a sentence like (22), repeated below as (38), the derivation is essentially the same, with the only difference lying in the choice of (non-obligatory) controller for *pro*:

(38) Ava]$_i$ [$_{CP}$ avan$_j$ [$_{CP}$ taan$_{\{j,*i,*k\}}$ paris-æ tookkapoo-gir-**aan**-nnŭ]
she[NOM] he[NOM] ANAPH[NOM] prize-ACC lose.go-PRS-3MSG-COMP
namb-in-aan-ŭnnŭ] [pasaŋ-gaɭ-kiʈʈæ]$_k$ kaaʈʈ-in-aaɭ.
believe-PST-3MSG boy-3PL-ALL show-PST-3FSG
"She$_i$ showed [the boys]$_k$ [$_{CP}$ that he$_j$ believed [$_{CP}$ that himself$_j$/*herself$_i$/*themselves$_k$ would lose the prize]]."

Here, it is the medial subject *avan* ('he'), also denoting a perspective holder, that controls the *pro* which thus denotes a pronoun with 3MSG features. This difference triggers all the rest, along the lines delineated for (37), yielding the minimally different structure in (38).

Finally, consider a sentence like (25), repeated below:

(39) Sai$_i$ [taan$_{\{i,*j\}}$ ɕej-pp-**een**-nnŭ] so-nn-aan.
Sai ANAPH[NOM]$_i$ win-FUT-1SG-COMP say-PST-3MSG-COMP

"Sai$_i$ said [$_{CP}$ that he$_{\{i,*j\}}$ would win]"

Here, the difference is due to the notion that although *Sai* non-obligatorily controls *pro*, thus corefers with it — coreference does *not* entail ϕ-matching. This is because the ϕ-features of *Sai* are evaluated against the utterance context, whereas those of the embedded clause (containing *pro*) are evaluated against a shifted context where the *Speaker* of the context is actually Sai himself, thus is characterized as 1SG by *pro*. The rest of the derivation follows automatically, as sketched above.

6 Conclusion

The goal of this paper has been to argue that grammatical perspective, instantiated either mental or spatio-temporally, is structurally represented. Evidence for this came from the Dravidian language Tamil where it was argued that grammatical perspective could direct affect the shape of morphosyntactic agreement on the verb. On the strength of this, I have proposed a two-stage model of perspectival anaphora mediated by a perspectival pronoun that is non-obligatorily controlled by the antecedent of the anaphor, and in turn binds the anaphor in its local domain. The antecedence-anaphora relationship is thus actually an epiphenomenon of two independent coreference relationships: a non-structural, discourse-pragmatic one between a nominal denoting a perspective-holder and the perspectival pronoun, and a structural (syntactic and semantic) one between this perspectival pronoun and the anaphor.

In addition to explaining the agreement facts that motivated the analysis in the first place, this model also has the independent advantage of being able to explain hitherto problematic aspects of perspectival anaphora, to wit that it is structurally well-behaved in some respects (e.g. with respect to respecting locality domains for anaphors) and ill-behaved in all others (e.g. with respecting to violating locality, minimality, c-command, antecedent determinism and so on) — properties which make it hard to analyse in either purely structural or purely discourse-pragmatic terms.

Although the analysis here has been based primarily on evidence from Tamil, it can be easily extended to model perspectival anaphora in other languages. For instance, it has been noted (see e.g. Hicks 2009) for Icelandic, that the identity of the perspective-holder also seems to condition the choice of subjunctive vs. indicative marking on the clausemate verb of the chosen antecedent. Interestingly, 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). An elegant way to model these facts would be to propose that, in Icelandic, the "Persp" head that introduces the perspectival *pro* and associates it with a perspective-holder role is, in fact, nothing other the Mood head that is responsible for yielding subjunctive marking. In the indicative, the perspectival pronoun is pre-set to denote the utterance-context speaker, but in the subjunctive this default is *obviated*, allowing it to be non-obligatorily controlled by the nominal that ends up being the antecedent of the Icelandic perspectival anaphor — along the lines sketched for Tamil above. Similar extensions may be made to other instances of perspectival anaphora: showing perspectival sensitivity along different dimensions (e.g. the spatial one, as in Norwegian and Dutch) and with respect to different categories of predication.

It was noted earlier that languages vary with respect to the kinds of perspective that are relevant for anaphora. In some like Tamil, perspective along both the mental and spatial dimensions regulate anaphoric antecedence; in others, like Italian and Icelandic (citations as earlier), only mental perspective seems to be relevant and in yet others, like Dutch and Norwegian, only the spatial one. Logophoric dependencies, involving free indirect discourse, seem only to involve the role of mental perspective. It is unclear at this stage how these distinctions are to be formally captured.

Claiming that perspective is structurally represented, however, has the implication that it should be able to influence not only anaphoric dependencies but also other types of (morpho)syntactic phenomena. An obvious contender is the phenomenon of obligatory control — which is, after all, broadly speaking another kind of referential dependency between nominals. Landau (2015) indeed argues that instances of non-exhaustive control crosslinguistically should be analysed as a kind of "logophoric control" involving a perspectival pronoun which, as far as I can see, is strikingly similar to the perspectival *pro* being proposed here. Other candidates which bear the fingerprint of perspective involve demonstrative pronouns (or D-type pronouns) in languages like German which have been shown to bear anti-perspectival effects (see e.g. Bosch and Hinterwimmer To Appear), taste predications which are known for being perspectival (Stephenson 2007, Pearson 2013a) and, of course, structures involving perspective-shift phenomena more generally (Bylinina et al. 2014). But the possible syntactic presence of perspective is also indicated in the interaction between perspective and argument-structure (as with psych predications, for instance) and in tough-movement constructions (see e.g. Gluckman 2016, a.o.).

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