

Configurational Properties of Point of View Roles
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0. Introduction: P-Roles

The pragmatic force of a sentence and the pragmatic roles of discourse participants have traditionally been considered to be peripheral to the syntactic component of Grammar. Recently, there have been a variety of proposals for syntactic projections that encode information relevant to the interface between syntax and pragmatics. (Rizzi (1997), Cinque (1999), Ambar (1999), among others). At the same time, linguists have been exploring the various notions of pragmatic prominence or point of view that are relevant to that interface. (Sells 1987, Zribi-Hertz 1989, Tenny 1998, Speas 2000 etc.) Studies of this sort naturally raise questions about the *extent* to which pragmatic information is syntactically represented. After all, the idea that syntax encodes extensive pragmatic information was rejected as being too unconstrained in the 1970s.

On a separate track, linguists have observed that sentience (also variously described as animacy, subjectivity or experiencer-hood) plays an interesting role in the grammar. (Kuno and Kaburaki 1977, Stirling 1993, Smith 2000) However, these phenomena have been treated as involving pragmatics or Discourse Representation; syntactic representation of sentience has been largely limited to treatments such as associating lexical features for animacy or logphoricity with individual lexical items. Our proposal will unify both tracks: representation of sentience and representation of pragmatic properties, under one syntactic approach.

We will argue that basic syntactic principles constrain projections of pragmatic force as well as the inventory of grammatically relevant pragmatic roles. We take our inspiration from the work of Hale and Keyser (1993, 1998, 1999), Di Sciullo (1999, 1996), Travis (2000), Borer (1998), among others, who have explored constraints on the mapping from Lexical Conceptual Structure (LCS) to syntactic structure. Although there are interesting differences among the proposals made by these authors, they seem to be converging on two points: syntactic principles impose constraints on possible lexical items and their projections, and semantic roles are not primitive, but are determined within these basic asymmetric projections. We will argue that the same basic structural principles that constrain lexical primitives and the lexicon-syntax interface also operate on primitives of a *Sentience Domain*, and restrict the pragmatics-syntax interface. The above authors have offered theories of what can count as a “grammatically relevant” **thematic** property. Our goal is to use their insights to restrict what will count as a “grammatically-relevant” **pragmatic** property.

We will not be proposing a new theory of the specific structural restrictions on the lexicon-syntax interface, and we don’t offer much insight into how one might choose among the existing theories. What we will do is use Hale and Keyser’s theory as a point of departure, and show how the constraints they propose mediate the interaction between syntax and pragmatics.

Hale and Keyser have observed that lexical entries across languages are constrained in ways that ought to be predicted by an adequate theory of lexical representations. They develop their theory of lexical representations in order to explain the observed generalizations, shown in (1).

- (1) Hale and Keyser's observations:
 - a. There are many types of logically possible word meanings that are never grammaticized.
 - b. Verbs never select more than two internal arguments and one external argument.
 - c. Thematic roles seem to fall into a hierarchy.
 - d. We can descriptively isolate about six thematic roles (agent, theme, goal, source, experiencer, beneficiary), but we can't seem to define any of the roles precisely.

We will claim that a parallel set of properties holds of grammatically-relevant pragmatic roles (P-roles):

- (2)
 - a. **There are many logically possible speech acts that are never grammaticized.**
 - b. **No language grammaticizes more than three roles: speaker, hearer, and one logophoric role.**
 - c. **P- roles seem to fall into a hierarchy.**
 - d. **We can isolate about five P- roles (speaker, hearer, source, self, pivot), but we can't seem to define the roles precisely.**

In this paper, we will focus on the first two of these properties, and will develop an account from which all four properties follow. The first property is examined in Section 1, where we propose a constrained system for projecting pragmatically relevant syntactic structure within a *Speech Act Projection*. In Section 2, we extend this system to what we call the *Sentience projection*. These two projections make up the Sentience Domain. In Section 3, we show elements of these domains interact with "lower" syntactic and lexical domains to yield the above four properties. The proposal we will make differs from the traditional view in the philosophy of language, in which the asymmetric structure of the sentence is opaque to the principles that determine the pragmatics of the sentence. We will try to show that there are syntactic projections that mediate the syntax-pragmatics interface. If we are wrong, it seems to us that the pragmatic component must be organized in a way that parallels the syntactic component to a surprising extent.

1. The Speech Act Domain

1.1 *Speech Act Projections*

We follow Rizzi (1997), Ambar (1999, 2001) and Cinque (1999) in claiming that syntactic structures include a projection whose head encodes illocutionary force. This head is overt in languages that have sentence particles, clitics or morphemes indicating whether the sentence is a statement, question, etc. We'll adopt Cinque's terminology, calling this projection *Speech Act Phrase*, projected from a *Speech Act Mood* head.

We are interested in how such projections are constrained. To begin with, it is clear that such projections cannot be literal representations of specific speech acts, as was proposed by Ross (1970).¹ Speech acts are not unambiguously tied to specific forms. In principle, a sentence of any form may be used to perform any act. For example, a declarative sentence like that in (3)a may be used as an indirect command to close the window, an interrogative like that in (3)b may be used as a statement of outrage command to be left alone, and an imperative like that in (3)c may be used as an indirect challenge.

- (3) a. "It's freezing in here" → statement = indirect command to close the window
- b. "Are you crazy?" → question = indirect statement of outrage
- c. "Eat my dust!" → command = indirect challenge

Therefore, we do not mean to suggest that every speech act has an abstract syntactic representation. Rather, we are interested in those grammatical forms that correspond to direct speech acts, or illocutionary force.

Lyons (1977) classifies sentences (grammatical forms) into three basic types: Declaratives, Interrogatives and Imperatives. Languages with verbal Mood systems generally also mark Subjunctive Mood, which conveys various difficult-to-pin-down meanings having to do with Speaker attitudes. Subjunctives are most often found in embedded sentences, but they may occur in matrix clauses as well, as we see in (4). Finally, some languages have a morpheme in the mood paradigm for Quotative Mood, which is used when the Speaker is conveying information reported to him/her by someone else (or people in general).

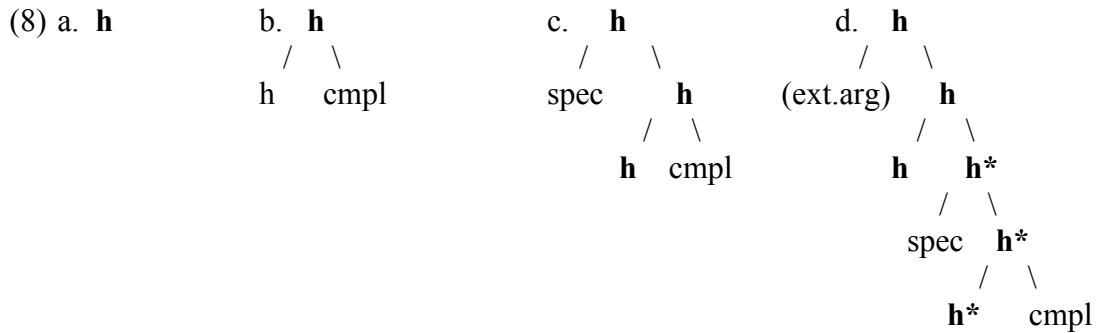
(4) Some examples of Latin Subjunctives:

- a. boves aquam bonam...bibant
cattle water good drink+3PL+PRES+SUBJUNCTIVE
'Let the cattle drink good water' (Cato, *de Agri Cultura*, cited in Palmer (1986:201))
- b. Sed maneam etiam, opinor
but remain+1SG+PRES+SUBJUNCTIVE still I-think
'But I should still stay, I think' (Plautus, *Trinummus*, cited in Palmer (1986:40))
- c. Iam apsolutos censeas quom incedunt infectores.
now paid-off think+2SG+PRES+SUBJ when come in dyers
'You may think they are already paid off, when in come the dyers'

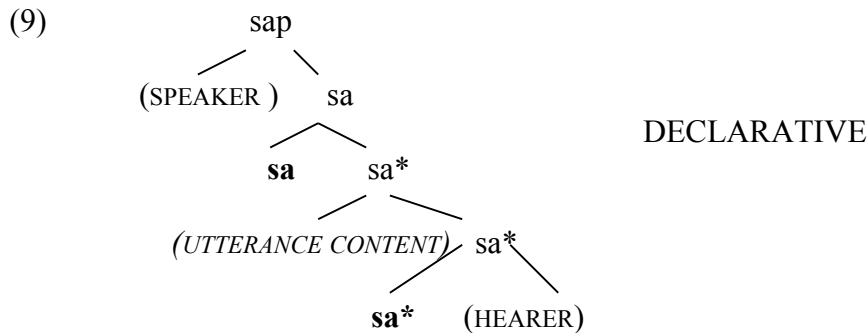
(5) Examples that might be called "Subjunctive" in English:

- a. Would that this too, too solid flesh would melt.
- b. Oh, to be young again!

from a single head, in the lexicon or in syntax, would have two head positions, two specifiers and one complement.⁸



We propose that the projection of features relevant to the interpretation of speech acts is constrained by these same basic principles. The Speech Act head projects the maximal structure, with a specifier, complement and external argument.

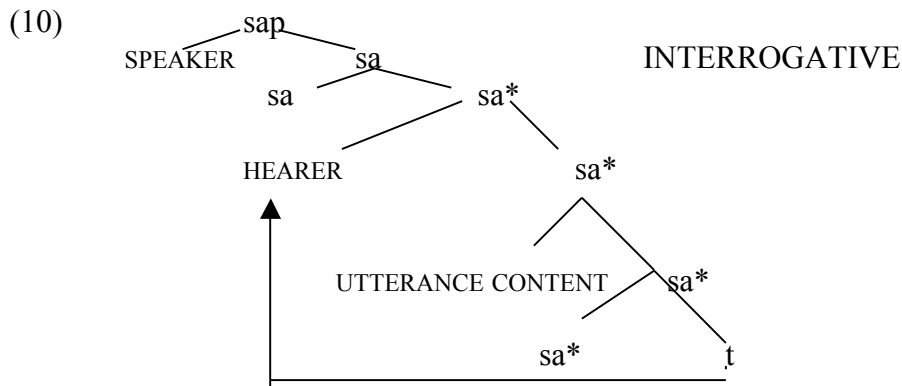


This is the structural representation of any declarative. Whether the sentence is *used* to deny, claim, request, praise, warn, promise, etc., is not represented syntactically. What is represented syntactically is the fact that the relations among the roles are asymmetric. Following Hale and Keyser, the pragmatic roles of “speaker”, “hearer” and “utterance content”⁹ are not primitives, but are defined in terms of their structural position. Thus, we may think of the SPEAKER as the agent of the speech act, the UTTERANCE CONTENT as its theme and the HEARER as its goal.

We claim that the limit on possible grammatical moods comes from the fact that the basic structure in (9) can vary only in formal features of the head, where formal features include only a feature that is checked by head movement and another that is checked in a spec-head configuration.

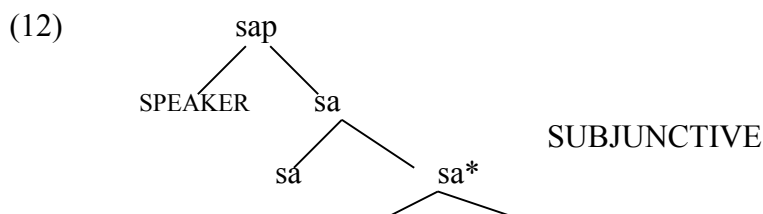
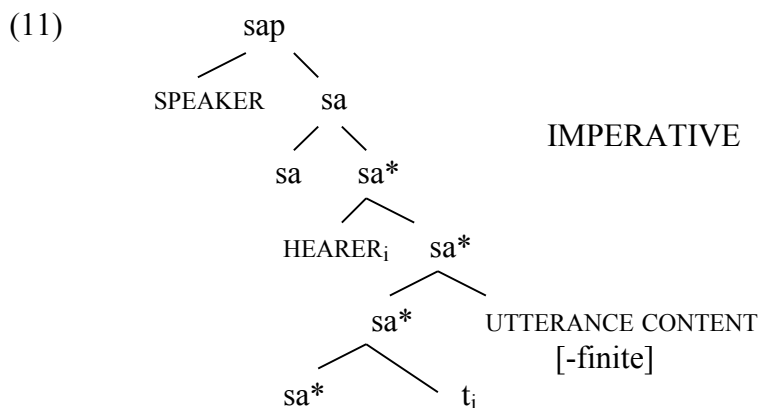
Looking first at the spec-head feature, the unmarked value yields a structure like that in (9). Suppose that this feature is parallel to Case features in VP shells. In VPs, following Larson (1988), Case absorption results in Dative Shift: the indirect object (goal) is promoted and the direct object (theme) becomes oblique. If we apply a parallel process to the Speech Act shell, we get a structure like (10), in which the goal of the speech act (the hearer) occupies the specifier of the lower projection, while the theme (utterance content) is “demoted”.¹⁰ Under this view,

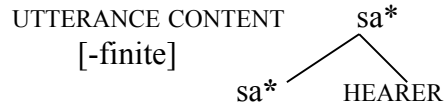
Interrogative sentences would involve absorption of some feature of the lower head, and attraction of the hearer to the specifier position of the lower head.



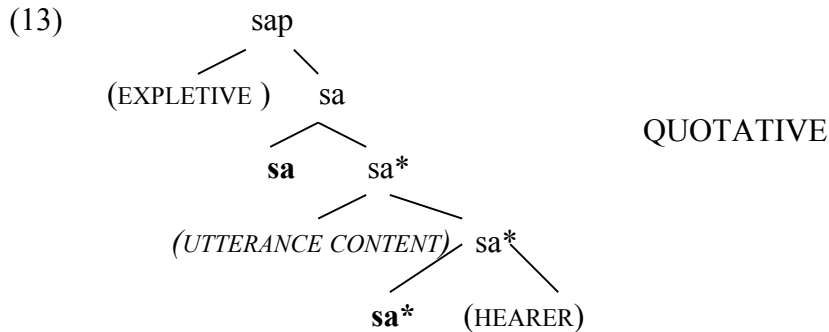
(10) is the structure of an Interrogative. The SPEAKER is still the highest argument of the speech act, but the HEARER has been promoted to a position where it can check the formal feature on the lower head. In this position, it is also the closest c-commander of the UTTERANCE CONTENT. The HEARER is now in a position to control the highest argument in the Point of View domain, which we will call the *SENTIENT argument*. (See Section 2) In a question it is the HEARER who possesses the knowledge relevant to evaluating the UTTERANCE CONTENT.

The other feature corresponds to the subcategorization features of a verb. Like overt verbs of speech, the speech act head may select a finite or nonfinite¹¹ complement (UTTERANCE CONTENT). The finite utterance content is what is found in a Declarative. When the content is nonfinite, the result is either Imperative or Subjunctive. For reasons to be discussed in Section 2, the result is Imperative if the HEARER c-commands the UTTERANCE CONTENT and Subjunctive if the UTTERANCE CONTENT c-commands the HEARER .





This exhausts the possible permutations of the basic structure in (9). What about the Quotative Mood? When we presented this paper, we assumed that the Quotative (Reportative) Mood is not really a Mood, but is located in a lower Evidential projection. However, in languages like Ngiyambaa, the Quotative morpheme is part of the Mood paradigm. Anna Maria DiSciullo (personal communication) has raised the possibility that the specifier of SAP may be an expletive. We speculate that the Quotative Mood is just such a configuration. Quotative Mood is often described as being used when the speaker wishes to distance him/herself from the information being reported. In a representation with an expletive subject, the Speaker would be (abstractly) absent from the Speech act. This captures the fact that Quotative Mood is often translated to English with an ‘it’ expletive.



Thus, by using basic principles of syntactic projection to constrain the projection of a Speech Act Phrase, we accurately predict the inventory of possible grammaticized speech acts.

1.2 Speech Act Roles

The roles SPEAKER and HEARER are usually thought to be represented in discourse representation and not in syntactic structure. It's possible that the representations we are proposing are discourse representations, and hence that Discourse Representations are constrained by the same principles as LCSs. In this section we will present some of the data that lead us to believe that these roles do have some kind of representation in syntax.

First of all, although the specific proposal of Ross (1970) that sentences have a covert representation of a higher predicate, speaker and hearer has been discredited, it is not clear that all of the data that led him to his analysis has been adequately accounted for. In particular, he pointed out a constellation of facts that seem to involve either local c-command by the Subject of a speech act/propositional attitude predicate, or deictic reference to Speaker. He makes the point that representing the SPEAKER in the syntax would allow us to account for these phenomena without recourse to a disjunctive rule. Since the conclusive arguments against his proposal have to do with the notion of deleting specific higher predicates and not with the notion of a configurational representation of SPEAKER and HEARER, it is not clear that the idea of a higher representation of P-roles has been discredited. (See Section 5)

Second, a number of languages have agreement phenomena that look like agreement with SPEAKER or HEARER. We will cite just two examples here. Ross (1970) pointed out that a certain form of the complementizer in Arabic occurs in either matrix COMP, or in the COMP immediately embedded under a predicate of speech with a first person subject:

(14) Arabic complementizers:

- a. *'an* after 'want', 'command', 'request', etc
- b. *'inna* after 'aquulu' '(I) say'
- c. *'anna* elsewhere

(15) *'aquulu 'inna lwalada qad taraka lbayta*
 (I)say that the-boy(acc) PST leave the-house(acc)
 'I say that the boy left the house'

(16) *'inna lwalada qad taraka lbayta*
 that the-boy(acc) PST leave the-house(acc)
 '(I say) that the boy left the house'

Frajzyngier (1989) describes a morpheme that looks very much like number agreement with the HEARER. In Mupun, a West Chadic language, there is a morpheme *numa*, which occurs only in two environments: in matrix questions with plural addressees (17)b, and in declaratives embedded under transitive verbs of saying whose object is plural (17)c.

(17)a. *wur n-ji_-e*
 3M PREP-Jing-INTERR
 'is he in Jing?'

b. *wur n-ji_-e nuwa*
 3M PREP-Jing-INTERR
 'is he in Jing?' (plural addressee) (Frajzyngier 1989:45)

c. *n-sat mo n_ nuwa naa k_ n-kes makaranta*
 1SG-say 3PL COMP PL look PERF 1SG-finish school
 'I told them, look, I have finished school' (Frajzyngier 1989:45)

Finally, the syntactic description of person features in Slave¹² indirect reports¹³ seems to require reference to the HEARER role. According to Rice (1986), person features in Slave (as in numerous other languages) can be interpreted relative to the reported speech act. What is interesting is that second person is coreferent with an overt Object if the higher verb has one, but with the matrix HEARER if there is no overt Object. Embedded first person in the same sentence is coreferent with the Subject of the higher verb. In (18), we see the verb 'tell', which has an overt Object. The embedded second person is coreferent with the higher Object, who is the HEARER of the reported telling act. The first person object is coreferent with the Subject of the sentence, who is the SPEAKER of the reported telling act. This case is not necessarily a problem, since the person features are interpreted as they are for direct reports in a language like English. It could be suggested that Slave simply allows for a "context shift" in the interpretation of indexicals

within indirect reports. The problem arises when we look at speech act verbs that do not have an overt Object, as in (19).¹⁴

(18) *w'ilada setw' __?anet'i yile hédesi*
 again 1sg.to 2sg.come NEG 1sg tell 3sg
 'I told him not to visit me again' LIT: I told him you don't visit me again

(19) *Simon rásereyineht'u hadi*
 S 2sgS-1sgO-hit 3sg.say
 'Simon said that you hit him' LIT: Simon said you hit me

Sentence (19) would be appropriately uttered in a context such as the following:

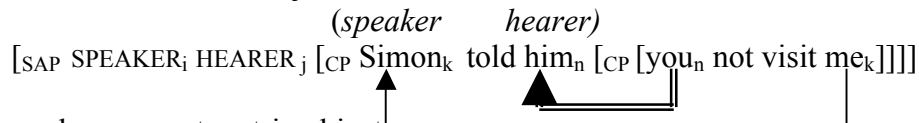
- (20)a. Simon points at Mary and says to me, "She hit me."
- b. I go over to Mary, and I say "Simon says you hit me."

A sentence like (19) cannot be accounted for by saying that embedded person features can be interpreted relative to either the current discourse context or the reported discourse context, because first person targets the reported discourse while second person targets the current discourse. We also cannot say that Slave pronominals can individually target either discourse, because when there is an overt Object, as in (18), a second person pronominal must be coreferent with that Object. Second person is coreferent with a higher Object if there is one, otherwise it is coreferent with the matrix HEARER. Note that the matrix speech act in (19) and (20)b does include a pragmatic HEARER, but that HEARER is not the referent of the embedded second person pronoun.

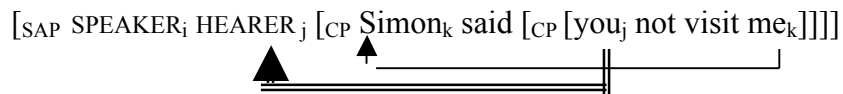
If we assume that the matrix sentence contains some representation of SPEAKER and HEARER, then a very simple picture emerges: Slave first and second person pronominals are bound by the most local SPEAKER and HEARER, respectively.

- (21) Slave first person pronominal is bound by the most local SPEAKER
- Slave second person pronominal is bound by the most local HEARER.

a. overt matrix object:



b. no overt matrix object:



These data may seem exotic, but they can be made to follow quite simply if we adopt the view of Tsoulas and Kural (1999) that indexical pronouns are variables.^{15,16} They argue on semantic grounds that first and second person pronouns are variables, bound by operators "located above the CP node" (Tsoulas and Kural 1999:8). If their proposal is on the right track,

then the only difference between Slave and English is that Slave 1st/2nd pronouns are bound by the *closest* speaker/hearer, while English 1st/2nd pronouns are bound by the *highest* speaker/hearer.

A complete account of the phenomena discussed in this section is beyond the scope of this paper. For present purposes, these data show that the interactions between thematic and pragmatic roles are restricted by locality principles, which are difficult to formulate unless the pragmatic roles are syntactically represented.

2. The Point of View (Sentience) Domain

2.1 Preliminary typology of point of view phenomena.

Reference to some notion of *point of view* can be found in discussions of a variety of grammatical phenomena, including long-distance binding, logophoric pronouns, psychological predicates, and switch reference. These are all constructions in which the grammatical form depends in some way on the *sentient individual* whose *point of view* is reflected in the sentence. In this section, we will claim that basic syntactic properties also restrict the inventory of this sort of P-role. In particular, we will argue, following Stirling (1993) that there is one, but only one, P-role in addition to speaker and hearer. We will show how the apparent evidence for multiple P-roles is actually a reflection of the limited ways in which this P-role can be coindexed with other roles. (See Fillmore (1971), Cantrall (1974), Mitchell (1986), Sells (1987) and Minkhoff (1994), among others, for claims that we need multiple roles, and Stirling (1993) for a detailed discussion of Sells' proposal.)

In this section, we will briefly discuss the phenomena for which point of view or logophoric roles seem to be relevant in some way to sentence grammar. Our discussion is based on the survey of Smith (2000). We do not attempt an analysis of these data here; we simply include this list to illustrate the range of phenomena that display point of view effects. The question of the extent to which some common analysis can or should unify these data remains for future research.

Smith 2000 discusses 15 "linguistic forms contributing to subjectivity" (2000:18). She proposes a composite approach, which constructs a Discourse Representation from various syntactic properties of a given sentence. It is beyond the scope of this paper to argue in detail against the Discourse Representation Approach, so we won't go through all of the forms that she lists¹⁷. Rather, our list is constructed to illustrate two points: 1) There are numerous such phenomena that show constraints that mimic syntactic locality constraints 2) Accounts of these phenomena never require reference to more than one pragmatic role in addition to SPEAKER and HEARER.

A. Logophoric pronouns

Logophoric pronouns are morphologically marked to take reporter or SOURCE of information as antecedent. They form part of the person paradigm in some languages. They behave syntactically like A'-bound variables. Sells (1987) argues that there are three different types of logophoric antecedent, those shown in (22). Stirling (1993) argues that only one discourse role is needed to describe the relevant phenomena.

- (22) SOURCE: the one who makes the report
 SELF: the one whose "mind" is being reported
 PIVOT: the one from whose physical point of view the report is made

Sells also argues that these three are in a hierarchical implicational relationship, which Culy 1994 derives from a hierarchy of logophoric predicates:

- (23) Hierarchy of logophoric predicates: . (Culy 1994:1062)
speech >> thought >> knowledge >> direct perception

If a language allows logophoric pronouns in the complement of one of these types of verbs, it also allows them in the complement of all types that are higher in the hierarchy. Speas (2000) argues that the logophoric hierarchy is the exact inverse of the typological hierarchy for morphemes marking the type of evidence for a report (personal experience >> direct evidence >> indirect evidence >> hearsay) . See also Hagège 1974, Clements 1975, Maling 1984, Culy 1994, Koopman and Sportiche 1989.

B. Long Distance reflexives

These are anaphors that are not locally bound. They may be bound outside of their local binding domain, or they may have no overt antecedent, and be interpreted as coreferent with the 'SUBJECT OF CONSCIOUSNESS.' See Koster and Reuland (1991), Zribi-Hertz (1989), Pollard and Sag (1992), Kuroda (1973), Kuno (1972), Kuno and Kaburaki (1977), Iida (1996).

C. Modality

Palmer comments,

[Epistemic modality] is concerned with language as information, with the expression of the degree or nature of the speaker's commitment to the truth of what he says.

[Deontic Modality] is concerned with language as action, mostly with the expression by the speaker of his attitude toward possible actions by himself and others.

(1986:121)

Although both speaker commitment and speaker attitude involve subjectivity, the distinction between "language as information" and "language as action" suggests a difference in the type of point of view involved. For example, the deontic reading of 'may' involves permission, and only a sentient being can give or receive permission, while the epistemic reading involves only an assessment of logical possibility. Similarly, the deontic reading of 'must' involves obligation, which can only be imposed by a sentient being.

- (24) a. The rock may roll down the hill ≠ The rock has permission to roll down the hill.
 b. The book must be at least 200 pages to count for this assignment
 ≠ The book is obligated to be at least 200 pages
 ✓ Someone requires that the book be at least 200 pages.

D. Speaker-evaluative adjectives and epithets

Expressions like *damned, the bastard, the idiot*, express an evaluation or judgement, which may be that of the SPEAKER, or of the subject of a verb of speech or propositional attitude. Such expressions reflect the attitude of the speaker, except that when embedded under a predicate of speech, they may reflect the attitude of the Subject.

- (25) a. John phoned his damned cousin/the bastard. (damned by SPEAKER)
b. John said he phoned his damned cousin/the bastard. (damned by SPEAKER, or Subject)

Epithets have well-known peculiar binding properties, behaving in some ways like R-expressions and in other ways like pronouns. See Lasnik and Stowell (1991).

E. Psychological predicates.

These are verbs or adjectives that have an experiencer as one of their arguments. An experiencer argument is necessarily sentient, capable of internal experience. In languages, such as Japanese, certain psych predicates can only be expressed from the point of view of the experiencer, generally first person in statements and second person in questions. Experiencer arguments appear to be able to bind anaphors they do not c-command, and they may be antecedents for long distance reflexives or other arguments involving point of view. See among others, Tenny(2001), Postal (1970) and (1971), Giorgi (1984), Pesetsky (1987), Belletti and Rizzi (1988). In addition, psych adjectives, such as 'beloved' contrast with Speaker-evaluative adjectives, in that the attitude can be that of someone other than the speaker.

- (26) a. John phoned his beloved cousin.
b. I hate John's beloved dog.

F. Discourse-oriented adverbs

Evidential adverbs comment on the quality of the evidence supporting the truth of the proposition, or on the manner in which the individual has come to learn of that fact or truth (e.g., *clearly, evidently, apparently, mysteriously, inexplicably*). Evaluative adverbs express a judgment or evaluation of the fact or proposition, on the part of some sentient being (e.g., *fortunately, regrettably*). Speech act adverbs (*honestly, frankly*) express something about how the speaker is presenting the proposition or fact. Although all three types of adverbs are traditionally called "Speaker-oriented" adverbs (see Jackendoff 1972), evaluative and evidential adverbs differ from speech act adverbs in that the former may reflect the judgment or comment of the speaker or some other sentient individual, whereas speech act adverbs represent only the attitude of the speaker. In ((27))a, it is apparent *to Rhett*, not just to the speaker/author that Scarlett had used the curtains for a dress. In ((27))b, it is Rhett, not just the speaker/author (and certainly not Scarlett) who believes it fortunate that Ashley was not in love with Scarlett. However, ((27))c is odd. Since 'frankly' expresses an attitude only of a speaker/author, the sentence cannot mean 'Rhett's frank thoughts were that he didn't give a damn.'

- (27) a. Rhett looked at the window. Apparently, Scarlett had used the curtains for a dress.
b. Rhett looked at Scarlett. Fortunately, Ashley was not in love with her.
c. ##Rhett glared at Scarlett. Frankly, he didn't give a damn.

Some languages use morphemes or particles to express these notions. Cinque (1999) shows that there are universal ordering restrictions that apply to the expression of these notions, whether adverbs or morphemes are used.

G. Spatial deixis

Expressions like *here, there, behind, right, left* represent spatial relations as relative to some perceiver. (Fillmore 1971) They may interact with other point of view phenomena in interesting ways. Relative spatial location may also occur inflected on NPs, as with the Japanese inanimate pronouns *kore* (= this (here)), *sore* = (that (right there)), *are* (= that way over there) Spatial deixis is expressed as relative to some *perceiving individual*, not just to some discourse context. For example, in the discourse in ((28)), "here" refers to a location not just near the discourse, but near Sue in ((28))a and near Mary in ((28))b.

- (28) a. Sue: Shall I put the handouts back here on the table?
b. Mary: No, put them here on the stage.

H. Temporal deixis

Expressions like *now, then, yesterday, tomorrow* represent time as relative to some particular event, and may interact with other point of view phenomena in interesting ways. Inflection (for tense) on the verb in sequence of tense constructions seems to depend on the point of view reflected in the embedded clause. See Hollebrandse (1999).

I. Person

First and second person refer to the unique sentient individuals that are the participants in the discourse. Third person makes no reference to discourse participants. Several linguists have observed that there is a fundamental distinction between first and second person on the one hand, and third person on the other (Benveniste 1956, Bloomfield 1938, Forchheimer 1953, Halle 1997, Noyer 1992, Harley and Ritter 1998). Only the participants in the speech act -- the speaker and the addressee, represented by first and second person -- have true grammatical person. Languages often distinguish between participant and non-participant person in their morphosyntax. Further, some languages, such as Slave, Navajo and Amharic, use first person pronouns in logophoric contexts to refer to the Subject of a verb of speech.

J. Oriented predicates

Many languages distinguish verbs of motion depending on whether or not the motion is toward the speaker (eg. English *come, go*). Actually, the relevant point of orientation need not be the speaker, it just must be the sentient individual whose point of view is being taken. As Sells (1987:465) points out, ((29))a is fine ((29))b is odd because the predicate *went* indicates orientation away from the Subject, while the use of *own* indicates orientation toward the Subject.

- (29) a. He_i was happy when his_i own mother came to visit him_i in the hospital.
b. ??He was happy when his_i own mother went to visit him_i in the hospital.

K. Switch reference

Stirling(1991) reports that some Switch-reference systems mark coreference between Subject and *VALIDATOR* (= person responsible for determining truth of proposition), rather than between Subjects.

L. Short-distance pronouns

Point of view affects whether a pronoun can be bound by a local antecedent: when some expression introduces a point of view, then coreference is permitted (See Tenny 1998):

- (30) a. *Lucie_i took a picture of her_i.
b. Lucie_i took that damned picture of her_i.
c. *Timothy_i set the books on him_i.
d. Timothy_i set the books behind him_i.
e. *Pierre saw nothing but failure for him.
f. Pierre saw nothing but failure before him.

M. Free Indirect Style (Represented Speech)

In a certain literary style, a protagonist's point of view may be represented, while person and tense marking are still evaluated relative to the author. (See Banfield 1982, Speas 1999.)

N. Speech Act Mood morphology

We include morphology marking questions, statements, imperatives and subjunctives in our typology of phenomena involving interaction between syntax and point of view, as discussed in this paper.

2.2 *The Sentience Projection*

The above section is a list of phenomena whose description requires reference to some sentient individual, other than speaker or hearer, whose point of view is being reflected in the sentence. A complete account of all these phenomena is beyond the scope of this paper, and we haven't shown that all, or indeed any, of them are fundamentally syntactic in nature. However, we would like to draw attention to the *restrictions* on the inventory of such phenomena. We believe that there are systematic restrictions that would be surprising if the discourse-related properties of these constructions were purely pragmatic.

First, although many different terms have been employed for the relevant sentient individual other than speaker and hearer, it is striking that no languages ever mark more than one other such individual. For example, languages can have 1st person, 2nd person, 3rd person and logophoric pronouns,¹⁸ but no language has one pronoun for Sells' SELF and another for PIVOT. Nor does any language have pronouns for other individuals who could conceivably be prominent in a discourse, such as "orator," "persuadee," "medium of communication," "target of gossip," "overhearer," "author," "God," etc. This is strikingly different from the situation with other deictic features, such as honorific rank, where there are languages (like Thai) with pronouns for as many as 9 different levels of politeness. (see Hoonchamlong 1991)

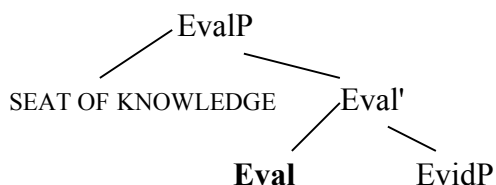
Second, many, if not all, of these phenomena show locality effects. "Logophoric" reflexives are blocked by intervening first or second person Subjects; the Japanese restriction on the subject of a psych predicate can be obviated by a higher predicate; the relevant sentient mind is fixed for a given clause; logophoric pronouns show crossover effects; etc.

Third, several of these phenomena have hierarchical properties. The relevant hierarchies are generally treated as distinct pragmatic hierarchies, which are matters of degree, not reflecting any constituent structure. However, Speas (2000) has shown that several distinct "pragmatic" hierarchies can be unified into a single hierarchy, and this hierarchy turns out to reflect the structure that Cinque has shown to be necessary to account for morpheme and adverb order.

In sum, only one "sentient mind" role is grammaticized, the referential properties of this "sentient mind" are constrained by locality restrictions, and a hierarchy governing adverb and morpheme order also governs hierarchies that had previously been treated as pragmatic. In order to capture these restrictions, we propose a configurational structure that encodes matters having to do with the point of view of a sentient entity. We will call this projection Evaluation Phrase, adopting Cinque's term for the projection just below Speech Act Phrase. Cinque doesn't posit an argument structure for EvalP, and our notion of "evaluation" is broader than the notion relevant for evaluative adverbs. Otherwise, we consider our sentience projection to be the same as his projection for Evaluative Mood.

We claim that EvalP has argument structure, like the Speech Act projection. We have adopted Hale and Keyser's terminology, but our analysis is also the structure one would expect under DiSciullo's asymmetric shell analysis (see DiSciullo, this volume, 2000 and 1999). The EvalP has one necessarily sentient argument (as both arguments of the Speech Act projection are necessarily sentient). This is the "SEAT OF KNOWLEDGE" or sentient "mind," who can evaluate, or process, or comment on the truth of a proposition. This argument is mapped to the specifier. This argument is essentially the VALIDATOR argument of Stirling (1993), however we are claiming that this argument has a direct representation in syntax. (See Section 3) A second argument is the proposition itself, which is mapped to an internal argument position. We label this internal argument Evidential Phrase, following Cinque.

(31)

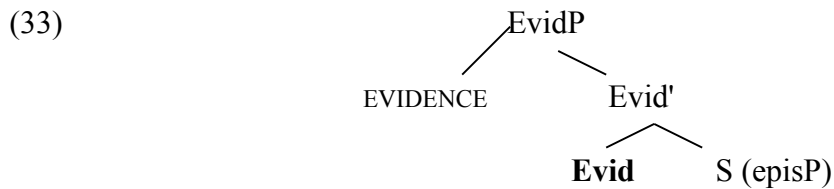


The structure in (31) has only the single head, and not the higher head. We speculate that (29) is just part of a larger phrase, which has the same form as SAP, as described above. This means that we treat EvidP as a lower projection in a basic shell projection. This suggestion is very tentative, since some languages have phonetically realized morphemes for both evidentiality and evaluativity. It may instead be that there is some independent reason why Eval and Evid heads project structures with no external argument. Since this issue remains undecided, we will first sketch out the internal structure of the Evidential Phrase, and then illustrate the result of combining EvalP with EvidP, which is a projection we call "Sentience Phrase."

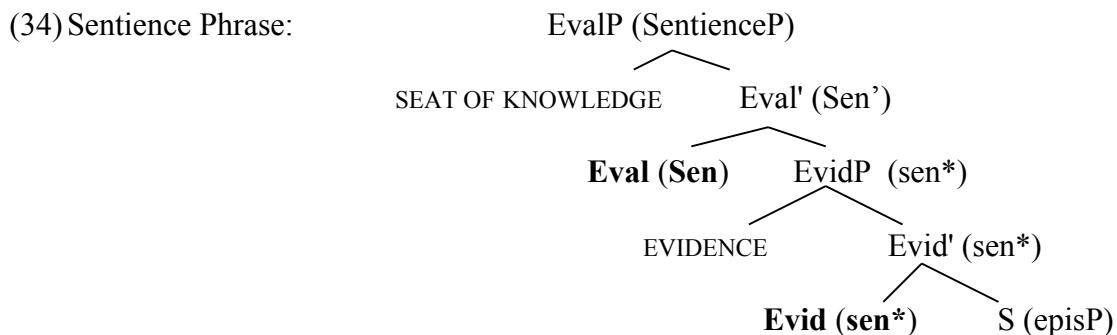
The Evidential Phrase has to do with the type of evidence available for evaluating the truth of the sentence, for example, personal experience, direct evidence, indirect evidence, and hearsay. (See Speas 2000, Willett 1988, Tenny 2000). It would be headed by a morpheme that is overt in some languages, such as Makah, and abstract in others.

- (32) a. wiki-caxa-w 'it's bad weather (directly experienced)' Makah
 b. wiki-caxa-k'u 'it was bad weather'
 c. wiki-caxa-k-pid 'It looks like bad weather (inference from phys. evid)'
 d. wiki-caxa-k-gad'i 'It sounds like bad weather'
 e. wiki-caxa-k-wa.d 'I'm told there's bad weather' (Jacobsen 1986:10)

In this case, no new sentient argument is introduced: it is the SPEAKER/SEAT OF KNOWLEDGE who has the relevant evidence. Therefore, we suggest that the evidence itself is the argument in spec, EvidP. In other words, the conceptual representation of (32)c, for example, is "physical evidence indicates [the weather is bad]."



Putting together EvalP and EvidP, we have that portion of the structure that encodes judgements and evaluations by a sentient mind on the truth-value of the proposition. We call this the Sentience Domain. It is within the scope of the Speech Act Domain, but has scope over the rest of the sentence. We speculate that this may be a shell projection of a single head like SAP above, and like VP¹⁹. The sentience domain, then, instantiates the maximal projected structure of a given head.²⁰



We are proposing, then, that there are three implicit arguments P-roles that map to participants in the discourse. These bear the P-roles SPEAKER, HEARER and SEAT OF KNOWLEDGE. Given the inventory of Mood heads²¹ along with the basic principles of syntactic projection, these three exhaust the inventory of possible P-roles that can be relevant to sentence structure.

3. P-roles and θ -roles

If we are right that there can only be three grammatically projected P-roles, then we have to account for the finer-grained distinctions that other researchers have found. We follow Stirling (1993) in claiming that the apparent presence of three different logophoric roles comes from the various ways in which the SEAT OF KNOWLEDGE (her VALIDATOR) can be coindexed with other arguments. Stirling did not consider these indexings to involve syntactic representations, and she didn't look at the indexings in various types of speech acts, but she showed that only one sentient role is needed.

First we will go through the possible indexings between arguments in the Speech Act domain and those in the Sentience domain. We will show how these work in the four different types of speech acts. Then we will consider the three logophoric roles distinguished by Sells (1987), and will suggest that there is also coindexing between arguments in these higher domains and arguments bearing θ -roles.

In an unmarked statement, the SPEAKER is the SEAT OF KNOWLEDGE. In other words, the SPEAKER has the evidence relevant to assessing the truth of the proposition, and the SPEAKER evaluates the information. In this unmarked case, the SEAT OF KNOWLEDGE is coindexed with the highest argument in SAP, that is, the SPEAKER.

In a question, it is the HEARER who is the SEAT OF KNOWLEDGE. The HEARER has the knowledge needed to determine which of the possible answers is the true answer. In this case, the SEAT OF KNOWLEDGE is coindexed with the HEARER. This follows naturally in our theory from the fact that a question is the output of the passive-like operation within the Speech Act domain. We take this coindexing to be a sort of control, which requires that the controller c-command the controlee.

Our claim that in a question the HEARER is the highest argument and is coindexed with the SEAT OF KNOWLEDGE in a question predicts that discourse-related adverbs in a question should express attitudes of the HEARER rather than of the SPEAKER. This prediction is correct.²²

- (35) a. Mary evidently knew the victim. (must be evident to SPEAKER)
b. Who evidently knew the victim? (must be evident to HEARER)
- (36) a. Mary unfortunately knew the victim. (SPEAKER thinks it's unfortunate)
b. Who unfortunately knew the victim? (HEARER thinks it's unfortunate)
- (37) a. Honestly, Mary knew the victim. (SPEAKER claims to be honest)
b. Honestly, who knew the victim? (request that HEARER be honest)

Imperatives and Subjunctives show a parallel alternation in SPEAKER vs. HEARER prominence, but since these are nonfinite, the alternation involves responsibility for something other than a truth-value.²³ In Imperatives, the HEARER is responsible for realizing the unrealized (nonfinite) proposition. In Subjunctives, the SPEAKER is responsible, but there are various interpretations that this responsibility can take. These interpretations correspond to the different

uses of Subjunctives crosslinguistically. In Latin, for example, Subjunctives are used to express a promise, wish, etc (see R. Lakoff 1968). What these have in common is that the SPEAKER is responsible, for effecting the event, for choosing the preferred world from the set of possible worlds, etc. Thus, the HEARER is the SEAT OF KNOWLEDGE in an Imperative and SPEAKER is the SEAT OF KNOWLEDGE in a Subjunctive, although the sentence does not involve knowledge per se, since the event is unrealized.²⁴ This alternation follows in our theory from the fact that the SPEAKER is the highest argument in a Subjunctive, but the passive-like operation has taken place in the Imperative, so the HEARER is the highest argument. As with Declaratives and Interrogatives, the seat of knowledge is controlled by the highest argument.

We have discussed the cases where the SEAT OF KNOWLEDGE is coreferent with the highest argument of SAP. However, it is also possible for the SEAT OF KNOWLEDGE to be disjoint from the highest argument. This is what happens when the sentence is conveying the point of view of someone other than the discourse participants, i.e., when there is some “logophoric” role.

Sells discovered that logophoricity involves more than single logophoric role. As mentioned in Section 2.1, he proposed that some phenomena involve the SOURCE of the information, some involve the SELF whose mind is being reported, and some involve the PIVOT, from whose point of view the report is made. In our framework, phenomena targeting SOURCE would be those that target the highest argument in SAP. Those that target SELF would be targeting the argument in the specifier of EvalP (SenP). As for PIVOT, we believe that phenomena targeting this role are targeting an argument in LCS that is coindexed with the argument in spec, EvalP. When a theme is coindexed with the seat of knowledge, we call the argument the “experiencer.” When a goal is coindexed with the seat of knowledge, we get a “speaker-oriented” (actually seat of knowledge oriented) predicate, like *come*.

4. Summary

We can now return to the five properties of grammatically relevant pragmatic roles we introduced in the beginning of this paper. We claim that the syntactic structures and processes argued for in this paper give a very simple explanation for these properties. Basic principles of syntactic composition operate on primitive heads of the Speech Act Domain and the POV (Eval) Domain. These yield asymmetric structures over which the three grammatically relevant pragmatic roles of speaker, hearer, and point of view argument, are defined.

The first two properties, which we are largely focused on in this paper, concern the restricted inventory of speech acts and pragmatic roles that we find grammaticized cross-linguistically:

- a. There are many logically possible speech acts that are never grammaticized.
- b. No language grammaticizes more than 3 roles: speaker, hearer, and one logophoric role.

We can find language after language that distinguishes statements from questions, and many languages also have forms for commands and for subjunctive-type meanings. We find language after language that distinguishes speaker, hearer and one more pragmatic role. Yet we do not find other types of speech acts or other types of roles that are systematically grammaticized, even

though one could imagine other types of speech acts and roles that could be salient in human cognition and discourse.

We have proposed that the reason that there are so few grammatically relevant pragmatic roles is because P-roles are the arguments of restricted SA and POV heads. The reason there is this particular and tiny inventory of grammaticized speech acts is that they are constrained by the operation of familiar syntactic processes and principles on syntactic configurational structure. The four types of grammaticized speech acts exhaust the possible operations on the structure of the Speech Act Phrase, and the three grammaticized roles, plus a role for utterance content and evidence, exhaust the possible argument positions within the Speech Act and Point of View phrases.

This paper also points the way towards an explanation for the third and fourth properties we included in our initial observations:

- c. P- roles seem to fall into a hierarchy.
- d. We can isolate about five pragmatic roles (speaker, hearer, source, self, pivot), but we cannot seem to define the roles precisely.

The five pragmatic roles (speaker, hearer, source, self, pivot) that that seem to be distinguished result from (and are definable as) the allowable combinations of the heads plus the possible coindexings between them. We have sketched out this approach in the previous section. Finally, the five roles seem to fall into a hierarchy, as Sells (and Culy) observed, because of the scope relations between the syntactic heads: the Speech Act head has scope over the Point of View/evaluative/evidential head. These in turn have scope over the thematic roles introduced through the LCS.

We have claimed that the structures we posit are in fact in the "Left Periphery" of the syntactic representation, and we sketched out a few reasons for thinking this in Section 1.2. If we are wrong about this and the phenomena we have examined are instead due to properties of a pragmatic component, then this pragmatic component is apparently constrained by the same configurational principles as the syntactic and lexical components. Resolution of this issue raises intriguing questions about the relationship between nonlinguistic conceptual structure (if there is such a thing) and syntactic structure.

As increasingly articulated functional structures are proposed, the need for a theory of the limits on functional projections becomes pressing. If we are on the right track, then we have a way to begin addressing this issue. We have adopted the view that the basic architecture of the computational component results dictates that a given projection can have no more than 2 heads, 2 specifiers and 1 complement (at least, underlyingly). Structures have been proposed for various other domains, such as Aspect (Travis 2001, Maruenda and Salome 1999, Zagona 1993) Tense/Agreement (Pollock 1989), WH-phrases and complementizers (DiSciullo, this volume, Topic/Focus (Zubizarreta 1998) and VP (Pica and Rooryck 1999) that seem to confirm that some principle restricts each domain to approximately this size. At the left-periphery (or the "right-periphery" in the case of Japanese -- Tenny 2001), and we speculate at other levels as well, Ambar (this volume) suggests that there are two structural domains, corresponding to the

Universe of Discourse and to Common Ground. An interesting hypothesis to pursue would be that the computational principles limit both the size of a projection and the number of projections that may be combined to form a syntactic "phase."(Chomsky 1999).

5 Coda: Why we aren't re-inventing Ross's Performative analysis

As noted in Section 1.2, Ross (1970) proposed that sentences have a Deep Structure representation of a higher "performative predicate." (See also Saddock (1969).) For example, sentence (38) and (39)a would have the DS (38) and (39)b, respectively.

- | | |
|--------------------------|-----------------------|
| (38)a. SS: | Mary is the culprit. |
| b. DS: I tell you that | Mary is the culprit. |
| (39)a. SS: | Is the exam tomorrow? |
| b. DS: I ask you whether | the exam is tomorrow |

Ross's proposal was rejected based on arguments such as those of Anderson (1971), Fraser (1974) and Gazdar (1979) (See Newmeyer 1986, Chapter 5 for a summary). What is interesting about these arguments is that they are primarily against an aspect of Ross's theory that is not part of the present proposal. Specifically, Ross claimed that DS representations contained specific predicates expressing the relevant speech act, and he claimed that sentences with overt performative predicates had the same DS as the equivalent sentence without an overt predicate. For example, (40)a and b had the same DS, as did (41)a and b and (42)a and b.

- | | |
|--|--------------------------|
| (40)a. I tell you that Mary is the culprit. | b. Mary is the culprit. |
| (41)a. I ask you whether the exam is tomorrow. | b. Is the exam tomorrow? |
| (42)a. I request that you pass the salt. | b. Pass the salt. |

The claim that (40)-(42)b have the same DS as (40)-(42)a is clearly vulnerable to the objection that we then have no way of ruling out the possibility that the DS of sentence (a) is actually "I tell you that I tell you that Mary is the culprit." Nor do we know whether the correct DSs for the (b) cases are actually (40)-(42)a, or a DS with some other predicate, such as "I report to you", "I advise you" "I warn you" etc.

Our claim, on the other hand, is that every sentence has one and only one Speech Act Projection, with an abstract structure that constrains what can be coindexed with the seat of knowledge, but gives no other specific information about whether the speech act is a telling, a warning, a report, etc. So, (40)a would have the structure (43)a, and (40)b would have the structure (43)b.

- | |
|--|
| (43) a. [SPEECH ACT PHRASE [SPEECH ACT [CP I tell you that Mary is the culprit.]]] |
| b. [SPEECH ACT PHRASE [SPEECH ACT [CP Mary is the culprit.]]] |

Endnotes

¹ See Section 5 for a discussion of how our proposal differs from Ross's.

² These examples are from Donaldson 1980:276, via Palmer 1986:72-73.

³ In Speas (2000), morphemes marking information obtained through hearsay are treated as part of the paradigm for an Evidential head, which is located, following Cinque 1999, lower than the Speech Act head. Assuming that the present proposal is on the right tract, the relationship between the Speech Act head and the Evidential head is unclear. It could be that “hearsay evidence” is slightly different from Quotative Mood, or it may be that languages may grammaticize reported information either in terms of the status of the utterance content (Hearsay Evidential) or in terms of the speech act (Quotative Mood). For an overview of evidentiality, see Rooryck (2001).

⁴ Of course, many declarations, such as “I now pronounce you man and wife” require specific words. The point is that no language has a morpheme or structure that must be used with all declarations.

⁵ In most of Hale and Keyser’s work, it is not clear how recursion is to be ruled out. See Juarros –Daussa (2000) for a proposal that restricts recursion by allowing free generation of non-head daughters, but no recursive selection.

⁶ Hale and Keyser’s LCS’s are argument structures. Additional modificational material may be present.

⁷ The lurking stipulation here is that each head can only have one feature to check (or, all features must be checked in the same position.)

⁸ Hale and Keyser analyze ditransitive verbs as having the structure in 7d. This requires that the LCS of the preposition in ‘Mary gave the book to Bill’ is a sub-part of the LCS of ‘give.’

⁹ We use the term “utterance content” as a vague cover term for the role assigned to the (rest of the) sentence. Sometimes the content is a proposition, but sometimes, as in a command or quote, it is not.

¹⁰ Hale and Keyser treat this operation as a matter of content of the lower head. One content yields verbs like “shelve”, where the incorporated complement is the location/goal, while the other content yields verbs like “saddle,” where the incorporated complement is the locatum/theme.

¹¹ As Stowell (1981) pointed out, verbs that subcategorize for interrogative complements cannot specify a value for finiteness. Verbs that take WH complements always take both finite and infinitival WH complements. The reason for this would seem to be parallel to the reason that speech act heads don’t select for WH features, only for finiteness, but we don’t quite see how to work out this parallel.

¹² Slave is a Northern Athabaskan language. Data are from Rice (1986).

¹³ Such sentences are indirect reports and not quotes: the words do not have to be the same words used in the reported speech act, and certain deictic terms are still speaker-oriented. See Willie (1989) and Speas (1999) for a discussion of such sentences in Navajo.

¹⁴ The facts discussed here obtain regardless of the person of the matrix Subject.

¹⁵ By ‘indexical pronouns’ they mean first and second person pronouns and deictic third person pronouns.

¹⁶ See also Schlenker (2000), for arguments that the bound third person pronouns are interpreted in the same way as first and second person pronouns. Schlenker proposes context variables rather than person variables. His theory predicts that all indexicals in the scope of a given context variable are interpreted relative to the same context. The Slave data are a counterexample to this, as are data in Navajo in which person features can be interpreted relative to a lower context while temporal and spatial indexicals are interpreted relative to the matrix context. See Speas (1999).

¹⁷ There is much overlap between her list and ours, but they aren't identical. Since both are just lists, and neither purports to be exhaustive, we won't go into a comparison of the two.

¹⁸ Some languages also have hearer-oriented logophoric pronouns.

¹⁹ The existence of distinct heads of EvalP and EvidP rather than a single Sentence Phrase is crucial in the proposal of Speas (2000) that the typology of logophoric predicates is related to the possibility of predicates selecting SAP, EvalP, EvidP or EpisP (Cinque’s next projection down).

²⁰ Our proposal for these two domains has an interesting parallel in the proposal of Pica and Rooryck (1999) for the configurational structure of propositional attitude predicates. Their proposal was brought to our attention after our presentation of this paper. The parallel is perhaps not completely surprising, since morphemes in the speech act and sentence domains express the same notions as overt propositional attitude predicates. If the sentence domain should turn out to be projected from a single complex head, the parallels become even more striking, but we leave this for future research.

²¹ Admittedly, we have no idea why the inventory of Mood heads is what it is.

²² Thanks to Tom Ernst for drawing our attention to this property of speech act adverbs like ‘honestly.’

²³ Note also that there is no EVIDENCE argument in Imperatives and Subjunctives.

²⁴ Perhaps RESPONSIBLE MIND would be a better term for this role.

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