

Fighting Words: Evidential Particles, Affect and Argument

John B. Haviland
Reed College

We ethnographers, like everyone else, normally meet words in the quotidian contexts of their daily lives, where, at least in principle, we should be able to overcome our idealizations to see the richness, rather than the poverty, of language structure. We find that languages not only permit the expression of, but also *grammaticalize*, aspects of daily life that we have not often been trained to detect. Recently I have been looking at fights, in which people war with each other with words as their weapons. The linguistic facts in verbal battles seem to collapse or conflate referential, expressive, and other rhetorical speech functions. The material has led me to examine the range of linguistic devices which typically carry affective and argumentative load, or which seem peculiarly suited to verbal battles. Here, of course, "linguistic device" must be understood to include everything from emotively charged lexical items to intonation, from anaphora and ellipsis to gestures, and from poetic parallelism to particles. This paper is about evidential particles, especially in Tzotzil and Guugu Yimidhurr argument.

Let me start, though, with English. We often fight with *truth*, and the basic techniques of contentiousness are often inseparable from the same matters that are routinely encoded in the grammatical category of *evidence*: truth, reliability, knowledge, and authority--relative to the context of the speech event. This is, among other things, what irony is all about. Consider the two fragments in (1) and (2), where I have put some notionally evidential elements into boldface.

(1) The Bickersons (an old-time radio show with Frances Langford and Don Ameche):

Blanche; had a miserable time.
 it was the UNhappiest anniversary I ever spent.
 Why didn't you show up for the party, John?=
John; =I **TOLD** ya
 I got stuck at the office.
Blanche; **I'd like to believe that.**
 What were you doing?
John; working.
Blanche; **su:re sure.**
 That's always the first excuse.

(2) Two sisters (aged 6 and 12) fighting
s; C'mon Maya, STOP it.
m; you nearly BROKE the television=
s; = **yeah** I nearly broke the television.

Since evidentials grammaticalize aspects of the epistemological status of the (putative) propositional substrate of utterances, they are by their very nature useful in arming an argument over matters of fact. But there is usually more than this to evidential particles: they are also *interactive*. Evidentials offer a delicate resource for manipulating a constantly shifting common ground between speaker (in his or her various faces) and interlocutors, a universe of discourse that has not only epistemological but also *moral* character. Evidentials encode not only what a speaker knows or how he knows it; but also what an addressee can be taken to know, or *should* know, or apparently (perhaps culpably) *fails* to know. Again, this

is what irony is often all about. For example, clause initial *yu`van*, in Tzotzil, marks a proposition as ridiculous or untenable, but at the same time presents it as somehow the alleged suggestion of some interlocutor, perhaps the present one. As in (3e)¹, it typically elicits a demurring disclaimer.

- (3) (discussion of the old days)
- a. l; ti naka to`ox toj tz-k`el
ART just then pine NONP+3E-watch
"They only used to use pitch pine to see with."
- b. j; naka no`ox
just only
"That's all."
[
- c. l; li li ta ak`ubaltik
ART ART PREP night
"uh..uh.. at night."
- d. *yu`van* oy lus un
EVID exist light CL
"(Do you suppose) they had (electric) light?!"
- e. j; ch`abal to`ox
not then
"No they didn't (have light)."

Extending the argument, the grammar of evidence picks out, presupposes, or implicates voices or faces (on both the speaker's end and that of his interlocutors): those who do and don't, or can and can't, know. Kuroda (1973) was among the first to point out that grammar can accord special treatment to those events or states, many of them psychological, which at least in Japanese one can only reliably predicate of oneself ('being sad,' for example). Grammatically, only the experiencer of such states (or an imagined omniscient narrator) is entitled to use what Kuroda calls a nonreportive description of such states and events, as in (4a).

- (4) (Kuroda 1973)
- a. Yamadera no kane o kiite, Mary wa kanasikatta
"Hearing the bell of the mountain temple, Mary was sad."
/nonreportive/
- b. Yamadera no kane o kiite, Mary wa kanasigatta.
"Hearing the bell of the mountain temple, Mary was sad."
/reportive with *gat*/

By contrast, the *gat* form of (4b), appropriate to an evidentially less secure report of someone *else's* state of mind, "has definite referential force directed toward the 'judger'" (p. 388). That is, the form "points semantically to the existence of a subject of consciousness whose judgment the sentence is understood to represent" (388), and who must be distinguished from the experiencer of the state described. The outsider's lack of *access* to someone else's inner facts is here morphologically encoded, and so, thereby, is his existence as a separate participant indexed by the grammar.

Evidentials can also pick out or implicate those *responsible* for the issue of truth, validity, or evidence in the first place. Consider how the participant structure of a speech event is characteristically brought to the fore when evidentials appear in non-declarative sentences. There is a complicated, although by now familiar,

interaction between evidentials and illocutionary force. The connection between dubitatives and interrogatives, for example, is iconically symbolized by frequently shared morphology (if not by shared meaning, what Wierzbicka [1980] calls the "ignorative"²). But there is more to this interaction. Both Warlpiri (Laughren 1981) and Tzotzil have a *hearsay* particle (see [7a] below) which marks the proposition of a *declarative* as originating with, or vouched for by, someone other than the speaker. Notably, the particle also appears in commands and questions, thus nodding obliquely in the direction of otherwise unseen participants.

- (5) Warlpiri (Laughren 1981) *nganta* 'affirmation from indirect evidence, hearsay'
- a. Marna-lu ma-nta!
grass-PL get-IMP
"Pick up the grass!"
- b. Marna *nganta*-lu ma-nta.
"They say you've got to pick up the grass."
- (6) Tzotzil *la* 'hearsay'³
- Mi li`-oxuk *la* k'alal i-0-yal tan-e?
Q here-2plA hearsay when PAST-3A-fall ash-CL
"Were you here when the ashes fell (implicates: somebody else wants to know)?"

As a consequence, by indexing participants, evidentials drag us back again to the arena where we should always have been: to situated speech and its unavoidably social context.

Moreover, insofar as *truth* is something one (sometimes) predicates of propositions, whereas *states of knowledge* are properties of speakers and hearers, evidentials bridge the treacherous and multi-tiered chasm between language and metalanguage--a chasm we should by now find familiar, if no less frightening.

I take as given an inherent *multifunctionality* (Silverstein 1985) to language, so that aspects of language design organized around certain linguistic functions, at certain levels, may systematically feed other uses and purposes, at other levels. A single element (a demonstrative, for example, as part of an utterance) is at once a primary referential device (picking out a referent), a member of a structured semantic domain (patterning both in sense and in syntax with other paradigmatically similar elements), an indexical vehicle (tied inextricably to its moment and place, and at the same time anchoring the utterance in precisely the *right* moment and place), a functionally crucial part of the uttered token of an illocutionary type ("identifying," perhaps, or simply "referring"), and an element in a practical social act (so that its reduced pronominal character, say, will contrast with an alternative way of "doing the same thing"--using a full noun phrase, for example, or a silent gesture, which would lend to the act of reference a different social character).

Particles present the same sort of stratified functional complexity, but in spades. To bring this argument down to earth, let me exhibit some fragments of Tzotzil talk by way of introducing a few more evidentials. The "particles" in question (here I will deal with only half a dozen or so out of an inventory considerably larger) fall into morpho-syntactic categories that suggest some of the relevant complexities of scope and contrast.

There are "second position" clitics (Aissen, in press) which have restricted distribution within a clause, and which are tied in scope to the corresponding

clausal predicate. The syntactic facts (including the precise placement of the particle/clitic) are rather complex here, but on distributional grounds the evidentials can be grouped together⁴. They include most importantly *la* 'they say, so I hear' [the hearsay marker, which we have already met], and *nan* 'perhaps'⁵. (7) shows canonical examples.

- (7) a. Mu *la* bu 0-s-ve`
NEG HEARSAY where 3A-3E-eat.
"He didn't eat it, so it is said."
b. ora *nan* 0-s-botz' lok'el ta `anil
at once perhaps 3A-3E-pull out leaving PREP fast
"He probably pulled it out quickly."

There are also clause-final clitics, which may occur in various combinations. The most notable examples are: *a`a* 'right, of course' (often preceded by *bi* 'indeed'), and *yu`van*, which may also be glossed as 'of course' or perhaps 'nonetheless' (examples in [8]).

- (8) a. ja` lik s-ve` ta `ora a`a
EMPH arise 3E-eat PREP hour of course
"(That's right) he began to eat immediately."
b. k'ox-on to`ox `un *bi*
small-1A then CL indeed
"I was, indeed, only a child then."
c. k'ox-on *yu`van*
small-1A of course
"I was small, of course!"

The last word, *yu`van*, also occurs in clause-initial position (as we saw in [3d] above), where it means 'Do you suppose?'--but implying 'you would be wrong.' As in (9), it is often paired with the stative second person form of *-na`* 'know,' where it normally seems to beg rhetorically for an interlocutor's self-defensive response.

- (9) *yu`van* ch`abal krixchano chk`elvan *ana`oj*
indeed not exist person watch you know
"(You don't suppose foolishly that) there are no
people who will stare, (do you?)"

Finally there are evidential sentential particles, such as *yilel* 'it seems [by the look of it]' and *ya`el* 'it seems [by the sound or feel of it]'. These are derived from the verbs *il* 'see,' and *a`i* 'hear, feel.' A further evidential phrase, *ta `alel* 'supposedly,' is transparently derived from *al* 'say' and means literally 'in saying, from saying.'

- (10) a. k`el-tz`i` *yilel* ch-0-bat
see-dog apparently INC-3A-go
"He went to watch for dogs, it seems."
b. `a taj j-ve`-tik j-moton-tik *ya`el*
CL that 1E-eat-PL 1E-gift-PL it seems
"Well we ate it; it was a gift to us, it seems."

- c. Ja` yech nox i-0-`ak`-b-at y-ol *ta `alel-e*
EMPH thus only COMP-3A-give-BEN-PASS 3E-child PREP saying.
"She was just given an illegitimate child, supposedly."

The etymology of these expressions suggests their kinship with a phenomenon, noted by various authors⁶, linking evidential categories with explicit deictics and perception verbs. The evidential element is *directive*: it points toward the relevant evidence from which inferences may be drawn, and hence draws a contrast with an unmarked proposition (which needs no special evidence). (10a), thus, suggests: "It looked as if he was going (to the cornfield) to watch for dogs"--suggesting what sort of appearances were relevant to drawing this conclusion, and thereby priming the hearer with the expectation that things were *not* as they seemed. (He was actually heading for a lover's tryst.)⁷

In the same vein, we discover, in the Tzotzil phrase *ta `alel*, an expression which at last conforms to Jakobson's original characterization (1957) of the evidential category: an indexical relation between the speech event, the narrated event, and a narrated speech event (presumably, when someone told the speaker about the narrated event). The Tzotzil etymology directs attention to precisely such a putative occasion of prior speaking⁸. In (10c), the phrasing suggests "She had an illegitimate child, (or so she [or someone] said)."

Evidentials, indeed most particles, are notoriously resistant to uniform analysis, in either propositional (semantic) or illocutionary terms⁹. Since such particles do not pattern neatly into paradigmatic sets, they do not reward structural treatment.

Their syntactic behavior is, as we see in the Tzotzil case, heterogeneous, and it presents daunting complexities of scope. To what, for example, does the doubt of the clitic *nan* attach? When *nan* appears in standard "second position" (following an introductory word or phrase and any temporal clitics) its scope seems to extend to the entire clause (11a); but where it splits an idiomatic phrase (11b) or appears outside of second position its gaze settles, Janus-like, on constituents to either side (see [11c] facing backwards to 'slingshot', and [11d] seemingly facing forwards to 'girl').

- (11) probable *nan* scope marked with brackets
a. kuxul to *nan* li j`a`yele
alive still probably ART person
"Probably [that fellow is still alive]."
b. te *nan* k'alal mi j-k`elan komel
there probably when if 1E-give away leaving
(te k'alal means 'never mind, forget it')
"It probably [doesn't matter] if I just give them away."
c. muk' bu x-0-laj ta `uli` *nan* s-bek'
y-at ch-a`i
NEG where AOR-3A-finish PREP slingshot.EVID 3E-seed
3E-penis INC+3E-feel
"He figures that probably he hasn't been hit in the balls
[with a slingshot]."
d. `an solet *nan* tzeb i-y-ik' a`a *yu`van*
PART only EVID girl COMP-3E-marry EVID EVID
"Why, probably he married [a mere girl], of course, don't
you know."

As evidentials are clearly designed for situated interaction, many of their characteristics are often relegated to an intractable pragmatic residuum along with other interpersonal elements in language (honorifics and similar conventional implicatures, diminutives and augmentatives, or other linguistic devices whose psychological tinge--indicating, without really *saying*, how a speaker feels, or where he stands with his fellows--leaves us feeling theoretically naked, wet, and miserable). All the same, it is precisely when speakers get down to such ordinary business that the properties of language as a tool begin to appear--that it stops, in Wittgenstein's phrase, "idling¹⁰."

I will limit myself to one family of uses. Why evidential categories should be primary weapons in a war of words is the particular issue of interest. So let's have a look at some Tzotzil cases, with a few comparative glances elsewhere.

Evidentials, as we have seen, explicitly grammaticalize a relationship between the propositional content of an utterance, and the speaker's knowledge, beliefs, attitudes, and intentions. Where this knowledge and these attitudes are explicitly at issue, then, as in certain sorts of argument over facts, evidentials provide a means of smuggling them in through the grammar, without having to put them, as it were, directly into words. They provide an additional resource for appropriately crafted formulations; note also that the issue may be *expected*, contextually *relevant* knowledge, rather than absolute, abstract knowledge¹¹. Robert M. Laughlin (1977:94) describes a venerable Zinacanteco myth-teller whose "accounts are sprinkled throughout with obscenities and ritual words and phrases; the former a sign of his self-assured status in the community, the latter a sign of his pride as a shaman, and an avowal of his intimacy with the gods. Quite deliberately he neglected to add the particle *la* which indicates that a story was only hearsay, for he wants you to know that he was there at the time of the creation."

The ploy also works in reverse, as verbal combatants know (or soon learn). Consider the stratagem of the skilled lay lawyer, mouthpiece for a village political boss, in (12). Called before a *ladino* (non-Indian) authority to explain a blatant abuse of power in which a man who had been called away on a manufactured pretext returned to find his cornfield and fruit trees sacrificed to a new road, this facile spokesman is given a chance to present his boss's defense in Tzotzil to an interpreter. It has already been *established* that the victim had been lured away from the village when his lands were destroyed. The lawyer slyly inserts several *las* into his account, subtly undermining the plaintiff's credibility.

(12) (argument at damages hearing)

a. ali jun jtatatik le` `une
ART one father there CL

"That old gentleman over there."

b. tal sk'ejan (sba) li` ta lisensyaro `une
come kneel self here at lawyer CL

"He has come to beg before the officials."

c. yu'un la ja` k'ux ta yo'on
because CL EMPH pain in his heart

"Because he **claims** to feel distress."

d. komo muk' bu tey la li volje-e
since NEG where there CL ART yesterday-CL

"since he **claims** he wasn't there yesterday."

I have already noted that such manipulated epistemological issues often leak into other semantic areas, so that it should not surprise us that evidentials also relate to questions of causation, volition, and agentivity (DeLancey 1985) at the level of the clausal encoding of events.

Still, face-to-face interaction, as the label implies, involves more than one face. Doubt and hearsay may be individually expressed, but with agreement and disagreement it takes two to tango. An important feature of evidential categories, rarely mentioned in the literature on the subject, is their capacity to encode features of what an *interlocutor*, as well as a speaker, knows or is ignorant of. Moreover, such facts are not absolute. The epistemological grounding of a conversation, the presumed body of *shared* information, is, as usual, a collaborative co-production tailored to the purposes and conditions at hand. Since the extent of shared knowledge between interlocutors can vary, it can also be a topic for contention, or for competitive interactional designs.

There are, however, some formal details. In Tzotzil, for example, the evidential enclitics *a`a* and *yu`van* are logically tied to what conversation analysts call "seconds"--turns that follow and are in some sense shaped by preceding turns. Thus, *a`a* means not only 'of course,' or 'indeed' but more: 'I agree with that (and what's more, I already knew it)' or, more contentiously, 'I can tell you that you're right about what you've just said!' In fights, as in other forms of verbal (not to mention academic) exchange, it is often pressing business to establish precedence: rights over and prior claims to information.

Conversely, *yu`van*, which I also glossed as 'indeed,' has a contradictory, disagreeing tone. It means, 'indeed, *despite* what you have said (or implied)' and goes on to suggest 'and you should have known it already!' In some contexts the particle seems to have the force of 'after all,' as in 'despite everything that has gone before, it turns out *after all* that *p*.'

(A comparative digression: in Guugu Yimidhirr, two exclamations, *yuu* and *ngay*, fulfill parallel functions: both respond to an interlocutor's remarks. The first indicates that the speaker was just waiting for the other to come round to a truth or proper formulation that he already possessed ("Yeah! That's right!"). The second suggests, in the context of a question just asked, that the answer is somehow coming out wrong or contrary to the speaker's expectations--a kind of surprised, heckling, back-channel.)

Notably, an utterance with *a`a* or *yu`van* cannot stand alone. The (b) sentences in (13) and (14) would not be well-formed in an isolated first-turn.¹²

(13) (conversation about hybrid corn)

a. puta, `unen k'ox-etik

damn! little small-PL

"Damn, they're just little tiny (kernels)!"

b. k'ox-etik a`a

"Yeah, they're small, all right!"

(14) (later in the same talk)

a. s-ta-oj kwentail li vojton ch-ak` `uke

3E-get-STAT account ART cob INC+3E-give also

"It gives a sufficiently large cob also (I suppose?)"

ak'-o mi k'ox-etik yilel y-ok

give-IMP Q small-PL it appears 3E-stalk

"even if its stalk appears small"

- b. ch-ak' a'a yu'van
 INC+3E-give CL CL
 "Of course it does (c.i.: how could you think otherwise!)"

Mary Laughren (1981) notes that the Warlpiri "propositional particle" *kulanganta* suggests the 'negation of a former presupposition.' It similarly orients itself to, and contradicts, something that has been said or suggested before.

- (15) -Karlarra-lku nganta-lu rdaku-ju pangurnu
 west-SEQ PP -3PL hole-DEL dug
 -Ngayi. Kulanganta yatijarra.
 "I've heard they dug the dam out west."
 "Really. I thought it was north."

Similarly, in Guugu Yimidhirr, a related Pama-Nyungan language, the utterance final clitics *ba* and *ga*, both glossed again as 'indeed,' contrast precisely on the matter of whether the speaker is agreeing or disagreeing with an interlocutor, not only over what has just been said, as in (16), but sometimes anticipating a reply with the indicated valence.

- (16) (talk about a countryman)
 -j; yubaal guugu nhanu-um-i yirrgaalgay?
 2DuNOM word 2sGEN-CAT-LOC were speaking
 "Did you two talk in your language?"
 -r; nyulu guugu ngadhun-gal ngadhoo-m-ay yirrgaalgay
 nyulu-ugu ba.
 3sNOM word 1s-ADES 1sgGEN-CAT-LOC
 3sNOM-EMPH indeed
 "He spoke to me in my language, yes he did!"

- (17) (myth about two feuding kinsmen)
 -ii, nyulu ngiingirr nhaadhi gurra
 3sNOM snoring saw then
 "(for a long time)..he listened for that snoring."
 -oh ngiingirr bulngaalngal ba
 snoring pulling indeed
 "Oh, so he finally is snoring!"

- (18) (lost countrymen unexpectedly return)
 -dhanaan banydyi
 3plACC waited
 "He waited for them (to come up)."
 -a bama yurra ga, waarmaadhi
 man 2plNOM indeed returned
 "Ah, so it's you all! You came back."
 -a waarmaadhi nganhdhaan duday gurra
 returned 1plNOM ran then
 "Yes, we have come back. WE ran away (from there)."

We see that *ba* and *ga* can accord with or contradict not only verbal propositions, either stated or anticipated, but also *expectations*: in (17) the confirmed expectation that the adversary will fall asleep, and in (18) the disconfirmed presumption that the others would not return. The sense in which these particles can anticipate or invite a

positive or negative response is particularly clear in the stock Guugu Yimidhirr evidential tag questions: *yuu ba* "Isn't that so?"--which fishes for confirmation--and *gaari ga* "No, that's not so!"--bracing for further contradiction.

I have suggested that evidentials are potent tools in verbal battle, as well as in ordinary conversation, in part because they help negotiate common ground and the universe of (moral) discourse. We know that some things (such as, say, psychological states in Japanese) are by definition not part of common ground: they are, in the unmarked case, out of bounds for shared or interpersonal scrutiny. In this sense, evidentials help keep the fences in place and in good repair, partitioning the world of who is in a position to know, who has the right to know, who can even *claim* to know *about*, the crucial facts of a situation. This brings me to my last examples, from somewhat closer to home.

In fragment (19), from a deliciously violent argument between two housemates (which ended in their dissolving their agreement to share an apartment), there is a striking use of evidential markers (applied with heavy sarcasm) to fan the flames of argument. Notably, these Spanish speakers turn Japanese psychology on its head: P denies L access to her *own* declared inner states. Note also the explicit metalinguistic tactic, again with an evidential flavor: "I have been very worried about you, and if you want me to tell you so, I'll tell you so."

- (19) (roommates squabble in Mexico City)
 l; y me preocupé mucho por tí y
 "and I was very worried about you"
 [sí sí sí sí
 "yeah yeah yeah"
 [y si quieres que te =
 "and if you want me to"
 =lo diga te lo di:go:
 "tell you so, I'll tell you so"
 [y desde que regresé
 "and since I have come back"
 [he estado muy preocupada por tí Pilar
 "I have been very worried about you"
 [sí pero =
 "yeah"
 =preocupadísima mano
 "very worried, friend"

Finally, have a look at the whimpering evidentials of a disputed volleyball serve, among a bunch of American academics. In an ambience of constant ironic joking, and self-mocking put-downs, complaints, and criticism, when a *real* disagreement emerges, the players must search for different rhetorical techniques. Here the players take refuge in an increased dose of sincerity ("honestly"), coy evidential framing ("saw it out"), token expressions of affect ("what a pity!"), and even explicit evidential meta-commentary ("I believe him"), to preserve their civilized immunity from overt hostilities.

- (20) (academics adjudicate a line call in volleyball)¹³
- p: that was good
brilliant serve
- n: No I **honestly** didn't **think** so
- r: I **thought** it was out
- n: I **honestly** thought it was out **myself**
what a pity
- db: it's your call
- c: what'd you think, Robert
- b: it's your call
- r: I **saw it out**, Carol
- p: huh
- c: **I believe him**

I have tried to illustrate the multifunctionality of the grammatical expression of certain evidential categories, in the sense that they act on semantic, pragmatic, discursive, and transactional levels simultaneously; more than this, there seems to be a *common* multifunctionality, across both situations and languages. Evidentials not only inject modal and epistemic categories into propositions; they index participants and their states of knowledge, in the context of speech; they permit implicit comment on moral and social interrelationships, and operate as interactive probes and barbs in the miniature social system of conversation. The general moral is that ethnographic richness, fidelity, and perspicacity are necessary to linguistic analysis, if we are to take seriously the principle that language is *designed* for social life.

Notes

¹ All original examples, in Tzotzil, Guugu Yimidhirr, Spanish and English, are taken from transcribed conversation.

² In Tzotzil, the dubitative clitic *nan* is replaced, in interrogative sentences, by a separate form *van*. The force of doubt is thus transferred to the addressee, so that from a proposition *p* one can form a question *Mi p van?* (where *mi* is the question-marker), which means, 'Do you suppose that *p*?'

³ Brown and Levinson (1978:157) make a similar observation about Tzeltal *lah* which, according to their analysis, is a "hedge" not on propositional content but on illocutionary force.

⁴ The "second position" formulation, as in many languages, requires an elaborate statement of what can constitute the "single" preceding constituent. Moreover, some members of this class can also appear elsewhere in a clause. Other "second position" clitics have aspectual/temporal meanings, and ordinarily precede evidentials. Within each semantic class, the members are mutually exclusive, at least in "second position."

⁵ Some other infrequent members are *kik* 'I guess, maybe,' *ka* 'I thought (mistakenly),' *Kik* seems to have a slightly more positive or optimistic tone to it than *nan*, although both sometimes occur together.

⁶ See, for example, Silverstein (1978) on the Wasco passive of evidence, which appears to incorporate an explicit deictic *-ix* 'there'; Hanks (1984) describes the evidential nature of ostensive deictics in Yucatec; and Laughren (1981) cites the Warlpiri "propositional particle" *kari* which indicates "supposition from direct evidence." Mithun (this volume) makes related observations about demonstratives in discourse, in a wide range of languages.

Len Talmy, in comments on the oral presentation of this talk, pointed out that Russian *vo*, a presentational form meaning 'This (and here it is)' is difficult to translate because of the situational vividness it conjures; it is usually restricted, even in narrative, to present tense sentences. The phenomenon may be related to deictic (directive evidential) force. Terry Kaufman suggests, in a similar spirit, the English equivalent *lo*.

⁷ Compare the evidential flavor (accompanied again by a presentational vividness) in the colloquial English form of words "I saw/see where *p*"--which, as Len Talmy observes, does not easily admit a 2nd person subject (except in questions, as in the case of Japanese psychological predicates), and which seems otherwise pragmatically restricted.

⁸ The nature of quoted and reported speech is clearly of related interest. Tzotzil uses the verb *-chi* 'say' to bracket quoted or dramatized dialogue, and the particle-like inflected form *xi* 'he says, one says' interacts with the hearsay clitic *li* in a complicated way.

⁹ Nonetheless, there is persistent programmatic optimism in some semantic circles. See Wierzbicka 1976, 1980, and Goddard 1979. I have not attempted to provide semantically uniform and well-motivated formulas for the Tzotzil evidentials described here, despite urgings from Tim Shopen that such an attempt is necessary.

¹⁰ "The confusions which occupy us arise when language is like an engine idling, not when it is doing work" (1958 section 132).

¹¹ DeLancey (1986) shows that Tibetan evidentials interact with interlocutors' assumptions about expected, predictable, contextually "normalized" background knowledge, a phenomenon which he relates to the "old/new" distinction.

¹² Tzotzil speakers can articulate certain metapragmatic intuitions about these particles; I can remember being criticized and mocked for misusing *a`a*, both in isolated first-turns, and in situations where it was obvious that I could not know enough about the topic at hand to be in a position to agree in the way that the particle required.

In comments after the talk, a psychoanalyst in the audience pointed out his own strategic, pragmatically ill-formed, use of *of course* as a provocative and deliberate prod to patients' framings of absolute certainty on some matter, which could be challenged or cast into doubt by the analyst's covert suggestion that he too was in possession of some of the relevant facts.

Compare the pragmatic misfire involved with the *misuse* of the particle *oh* (typically associated with news receipt, or, in a parallel way, with just remembering something one was going to say) in a turn where deliberate and pre-planned matters are mentioned.

¹³ These volleyball transcripts, and some of these thoughts, were collected during my stay at the Center for Advanced Study in the Behavioral Sciences at Stanford in 1985-86. I am grateful for support from the Harry Frank Guggenheim Memorial Foundation and NSF Grant #BNS-8011494. Fieldwork in Zinacantán and Hopevale has been supported by the Australian National University, the Universidad Nacional Autónoma de México, and the Australian Institute of Aboriginal Studies. I thank David French for helpful comments.

Bibliography

- Aissen, Judith in press. *Tzotzil Clause Structure*. Reidel.
- Brown, Penelope and Stephen Levinson 1978. Universals in language usage: politeness phenomena. In Esther N. Goody (ed.), *Questions and Politeness: Strategies in Social Interaction*, 56-289. Cambridge: Cambridge University Press.
- DeLancey, Scott 1985. Lhasa Tibetan evidentials and the semantics of causation. *Proc. of the Eleventh Annual Meeting of the Berkeley Linguistics Society*, 65-72.
- DeLancey, Scott 1986. Evidentiality and volitionality in Tibetan. In Wallace Chafe and Johana Nichols (eds.), *Evidentiality: The Linguistic Coding of Epistemology*, (Advances in Discourse Processes, vol. 20), pp. 203-213. Norwood, N.J.: Ablex.
- Goddard, Cliff 1979. Particles and illocutionary semantics. *Papers in Linguistics*. 12:1-2:185-230. Spring-Summer 1979.
- Hanks, William F. 1984. The evidential core of deixis in Yucatec Maya. In Joseph Drogo, Veena Mishra and David Testen (eds.), *CLS 20: Papers from the Twentieth Regional Meeting of the Chicago Linguistics Society*, 154-72.
- Jakobson, Roman 1957. Shifters, verbal categories, and the Russian verb. Russian Language Project, Dept. of Slavic Languages and Literatures, Harvard University.
- Kuroda, S-Y. 1973. In S. Anderson and Paul Kiparsky (eds.), *A Festschrift for Morris Halle*, 377-391. New York: Holt, Rinehart and Winston.
- Laughlin, Robert M. 1977. *Of Cabbages and Kings: Tales from Zinacantan*. Washington, D.C.: Smithsonian Institution.
- Laughren, Mary 1981. Propositional particles in Warlpiri. Paper presented to Australian Linguistic Society meetings, Canberra, ACT. In Steven Swartz (ed.), *Papers in Warlpiri Grammar: In Memory of Lothar Jagst*. S.I.L., Australia Branch.
- Silverstein, Michael 1978. Deixis and deducibility in a Wasco-Wishram passive of evidence. *Proc. of the Fourth Annual Meeting of the Berkeley Linguistics Society*.
- Silverstein, Michael 1985. The functional stratification of language and ontogenesis. In James V. Wertsch (ed.), *Culture, communication, and cognition: Vygotskian perspectives*, pp. 205-235. Cambridge: Cambridge University Press.
- Wierzbicka, Anna 1976. Particles and linguistic relativity. *International Review of Slavic Linguistics*. 1(2-3):327-367.
- Wierzbicka, Anna 1980. *Lingua Mentalis*. Sydney: Academic Press.

X-Bar Semantics

Ray Jackendoff
Brandeis University/Univ. of Arizona

I take the major concerns of semantic theory to be (1) the form of the mentally encoded information that we call "concepts," and (2) the principles used in (a) performing inferences on the basis of this information and (b) relating this information to other forms of information used by the human mind, including not only linguistic representations but also visual information (a la Marr (1982)) and other sensory and cognitive faculties. A semantic theory must therefore include at least three formal components:

- (1) a set of formation rules that collectively describe in finite form the expressive power of the "language of thought," paralleling, for instance, the set of formation rules (the grammar) that delineate possible syntactic structures in a language;
- (2) a set of inference rules that describe in finite form the allowable derivations from one conceptual expression to another (these may include rules of "invited inference" and "heuristics" as well as logical entailments);
- (3) for each other form of information that conceptual information can be related to, a finite set of correspondence rules that define the mapping.

Under such a conception, much of semantic theory is not part of linguistics per se, since the conceptual structures with which the theory is concerned are not language-dependent. (Only the correspondence rule component has specifically to do with language.) I assume, on grounds of evolutionary conservatism, that nonlinguistic organisms--both higher animals and babies--also possess conceptual structures in their mental repertoire, perhaps not as rich as ours, but formally similar in many respects. The difference between us and the beasts is that we evolved a capacity to learn and process syntactic and phonological structures and the mappings from them to conceptual structures and to the auditory and motor peripheries. These mappings permit us a relatively overt realization of conceptual structure unavailable to other organisms.

However, this does not mean that linguists should not be concerned with semantic theory. Language provides the

BERKELEY LINGUISTICS SOCIETY

Proceedings of the Thirteenth Annual Meeting

February 14-16, 1987

GENERAL SESSION

AND

PARASESSION

ON

GRAMMAR AND COGNITION

edited by

Jon Aske

Natasha Beery

Laura Michaelis

Hana Filip

Berkeley Linguistics Society

| | |
|--|-----|
| MITHUN, MARIANNE | |
| The Grammatical Nature and Discourse Power of Demonstratives | 184 |
| NORVIG, PETER and GEORGE LAKOFF | |
| Taking: A Study in Lexical Network Theory | 195 |
| OHALA, JOHN | |
| Experimental Phonology | 207 |
| PULLUM, GEOFFREY K. | |
| see Zwicky and Pullum | |
| RHODES, RICHARD | |
| Paradigms Large and Small | 223 |
| SCHILLER, ERIC | |
| Which Way Did They Grow? | |
| (Morphology and the Austro-Tai/(Macro)Austic Debate) | 235 |
| SHANNON, THOMAS F. | |
| On Some Recent Claims of Relational Grammar | 247 |
| SHAUL, DAVE | |
| Pragmatic Constraints on Hopi Narrative Discourse | 263 |
| SZATROWSKI, POLLY | |
| A Discourse Analysis of Japanese Invitations | 270 |
| TAN, FU | |
| The Predicate Argument Structure of 'Bei' | 285 |
| TUITE, KEVIN | |
| Indirect Transitives in Georgian | 296 |
| VIJAYAKRISHNAN, K.G. | |
| Hierarchical Representation of Phonological Features | 310 |
| WILSON, STEPHEN A. | |
| The Development of Tones in Heiltsuk | 321 |
| ZWICKY, ARNOLD M. and GEOFFREY K. PULLUM | |
| Plain Morphology and Expressive Morphology | 330 |

PARASESSION

| | |
|--|-----|
| HAVILAND, JOHN B. | |
| Fighting Words: Evidential particles, Affect, and Argument | 343 |
| JACKENDOFF, RAY | |
| X-Bar Semantics | 355 |
| LAMBRECHT, KNUD | |
| Aboutness as a Cognitive Category: | |
| The Thetic-Categorical Distinction Revisited | 366 |
| LANGACKER, RONALD W. | |
| Grammatical Ramifications of the Setting/Participant Distinction | 383 |
| LEE, MICHAEL | |
| The Cognitive Basis of Classifier Systems | 395 |

| | |
|--|-----|
| POTEET, STEPHEN | |
| Paths Through Different Domains: | |
| A Cognitive Grammar Analysis of Mandarin 'Dao' | 408 |
| RICE, SALLY | |
| Towards a Transitive Prototype: | |
| Evidence from Some Atypical English Passives | 422 |
| SLOBIN, DAN | |
| Thinking for Speaking | 435 |
| SWEETSER, EVE | |
| Metaphorical Models of Thought and Speech: | |
| A Comparison of Historical Directions and | |
| Metaphorical Mappings in the Two Domains | 446 |
| WILKINS, WENDY | |
| On the Linguistic Function of Event Roles | 460 |

* * * * *

The following papers were presented at the conference but do not appear in this volume:

| | |
|--|--|
| BATES, ELIZABETH | |
| Function and Form in Language Acquisition | |
| CLARK, EVE V. | |
| Why Comprehension Leads Production in Acquisition | |
| KAY, MARTIN | |
| Finite State Morphology | |
| MATSUMOTO, YO, ET AL. | |
| The Japanese Reflexive Zibun-zishin | |
| and the Supposed Relatedness of Anaphora and NP-trace | |
| MORDECHAY, SUSAN | |
| Pragmatic Scales and the Semantics of 'Already' | |
| RUMELHART, DAVID | |
| Some Speculations on the Microstructure | |
| of Linguistic Information Processing | |
| THOMPSON, SANDRA | |
| That-deletion in English from a Discourse Perspective | |
| ZERNIK, URI | |
| Acquiring Idioms from Examples in Context: Learning by Explanation | |

The following papers were not presented at the conference but are included in this volume:

| | |
|--|--|
| POTEET, STEPHEN | |
| Paths Through Different Domains: | |
| A Cognitive Grammar Analysis of Mandarin 'Dao' | |
| VIJAYAKRISHNAN, K.G. | |
| Hierarchical Representation of Phonological Features | |