

Direct Evidentials, Case, Tense and Aspect in Tibetan

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The Tibetan evidential system seems to defy systematic analysis. Each evidential category comprises multiple morphemes, and the semantic distinctions that these morphemes encode are often so subtle that native speakers have difficulty explaining them and are often surprised when shown that pairs of morphemes are not intersubstitutable. Nonetheless, careful analysis of these subtle distinctions reveals a surprisingly coherent system, with implications beyond the description of Tibetan. In this paper we sketch that system, focusing on the multiple markers of direct evidentiality. Our account of the Tibetan direct evidential system provides striking support for a theory in which evidence is not a semantic primitive and evidentials encode not evidence type or information source *per se*, but relations between situations.

The Tibetan evidential system comprises three categories: direct evidence, indirect evidence and ego evidence (immediate reflexive knowledge). Within each of these categories several different morphemes encode further subtle distinctions. For example, there are three direct evidential morphemes (‘*dug*, *shag* and *song*’), shown in (1), which are often, but not always, interchangeable¹.

- (1) a. *kha sang khong ‘khrom la slebs ‘dug*
yesterday he market (LOC) arrived ‘DUG
‘Yesterday he arrived at the market’ (and the speaker witnessed the event’)
b. *kha sang khong ‘khrom la slebs shag*
yesterday he market (LOC) arrived SHAG
‘Yesterday he arrived at the market’ (and the speaker witnessed the event’)
c. *kha sang khong ‘khrom la slebs song*
yesterday he market (LOC) arrived SONG
‘Yesterday he arrived at the market’ (and the speaker witnessed the event’)

It is fairly well established that *song* and *byung* incorporate past tense, while ‘*dug* and *shag* are unmarked for tense.² The distinction between ‘*dug* and *shag* is less clear, and to date is virtually unstudied. (This is surprising, given that *shag* is probably the most frequently used direct evidential in spoken Tibetan.) We will argue that careful study of this distinction reveals that evidentials, contrary to common belief, do not encode evidence type *per se*. Instead, we will show, they encode a *relation* between the situation being reported by the speaker and the situation within which evidence was acquired. We will argue further that the distribution of these two direct evidentials provides strong support for the proposal of Speas (2010) that evidentials of all categories encode relations among situations.

The account we defend in turn explains an otherwise mysterious phenomenon,

¹ We use the standard Wylie (1959) transliteration system for the Tibetan examples.

² See Agfa (1993), Tournadre and Dorje (2003) and Garrett (2001).

viz., the surprisingly small inventory of evidential categories across languages. As Aikhenvald (2006) has shown, markers of evidentiality rarely distinguish among more than four evidential categories, and the categories are strikingly consistent across languages. This restriction and its uniformity are *prima facie* puzzling, given the wide range of types of evidence to which speakers might appeal, the many ways evidence might be classified in an epistemology, and the tremendous intercultural variation in naïve epistemology. The Tibetan evidential system is a *prima facie* counterexample to Aikhenvald's claim, given the large number of morpheme that it comprises. Nonetheless, as we shall see, the range of meanings these morphemes encode is consistent with a theory that predicts the kinds of limitations that Aikhenvald observed.

While it would seem that explaining this phenomenon would be an important desideratum for a theory of evidentiality, most recent analyses of evidential morphemes do not predict that the inventory of morphemes should be either small or crosslinguistically uniform. Studies have focused on whether evidentials operate at the propositional/modal level or the illocutionary level, but have generally left open the question of how (or even whether) to restrict the inventory of such operators.

Our examination of the meaning and distribution of the direct evidential morphemes in Tibetan suggests an answer to that question, and the answer depends on, the fact that “evidence” or “evidence type” is not a semantic primitive. Instead, we will show that Tibetan evidential morphemes convey a relation between a *Topic Situation* and the eventuality being reported. Although this relation is conveyed in the form of a presupposition or conventional implicature, it recruits the same primitives used in the tense/aspect system and predicts the restriction in the range of evidentials we observe. This approach turns out not only to accurately characterize the difference between the direct evidentials, but also to predict a number of other, seemingly unrelated, restrictions on their syntactic distribution.

After a brief overview of the Tibetan evidential system, we will begin our analysis by determining the level at which Tibetan evidentials operate. We will then turn to an examination of the difference between the two nonpast direct evidentials ‘*dug* and ‘*shag*. Our analysis of ‘*dug* and ‘*shag* as relations between situations will be presented in Section 4. Finally, we will show how our analysis can be extended to distinctions within the indirect and ego categories.

1. Overview of Tibetan Evidentials

1.1 The Tibetan Language

Tibetan is a Tibeto-Burman language spoken by about six million people on the Tibetan plateau, the Himalayan region and in Tibetan exile communities, principally in India, Nepal and Bhutan. The language comprises a number of major dialects, many of which are mutually unintelligible due to phonological and lexical differences, but which are grammatically very similar. The research reported in this paper is on the Lhasa

dialect, which is the dialect most widely understood, and is the native dialect of the lead author. Despite the fact that it is, like all Tibetan dialects, a minority dialect, Lhasa Tibetan is often regarded as “Standard Spoken Tibetan.”

Tibetan spoken dialects all differ from modern literary Tibetan, which differs again from classical literary Tibetan. The classical literary language does not represent evidentiality, and the evidential system of the modern literary language is significantly less rich than that of spoken dialects. Many of the morphemes that have evidential meanings in modern spoken Tibetan exist in the classical language but have different meanings. Although historically the majority of speakers of Tibetan have been illiterate and literary Tibetan has never been a spoken language, literary forms are often taken by educated contemporary speakers as normative. The data in this paper are all taken from the Lhasa dialect of contemporary spoken Tibetan, which is the native language of one of the authors.

Tibetan is an SOV language, with case particles distinguishing genitive, instrumental/agentive, locative and ablative cases. Nominative case is unmarked. It is not a topic-prominent language, although like English it allows optional overt topics and focus. Although there is no person or number agreement, Tibetan does allow the subject to be dropped in contexts where the subject is clear, and also allows the object to be dropped in some contexts. Evidential morphemes are generally obligatory for assertions, and occur at the end of the sentence.

1.2. Overview of the Tibetan Evidential System

Evidentiality is marked in Tibetan by a post-verbal morpheme. In cases where the predicate is non-verbal, this morpheme functions as the copula as well as the evidential marker.

(2) a. verb + evidential:

bKra shis kyis yi ge bris kyī ‘dug

Tashi AG/IN letter ACC write IMPF DIRECT

‘Tashi is writing a letter (and the speaker is witnessing it)’

b. copular evidential:

kha sang ‘khrom la mi mang po ‘dug

yesterday market (LOC) person many ‘

‘Yesterday there were a lot of people at the market (and the speaker saw them)’

Most contemporary scholars agree that there are three categories of evidence that may be marked, ‘ego’, ‘direct’ and ‘indirect.’ The morphemes marking these categories are shown in (3).

- (3) ego: *yin, yod*
 direct: *'dug, song, shag*
 indirect: *red, yod gi red, yod sa red, yin sa red*
 neutral: *red, yod red*³

We will postpone discussion of the distinctions among the evidential morphemes within each category until Section 3. Here we will describe in general terms the nature of ego, direct and indirect evidence.

Ego evidentials are used to report what Garrett (2001) calls “immediate knowledge”, that is, knowledge that the speaker simply has because it pertains directly to the speaker, as a property or possession of the speaker. For example, the ego evidential is appropriate for (4) because the speaker knows where he lives through personal experience.

- (4) *Nga lha sar sdad gyi yin*
 I Lhasa(LOC) stay IMPERF EGO
 ‘I live in Lhasa’

Ego evidentials are used to self-attribute properties or possession. Sentences with ego evidentials are commonly restricted to those with first person subjects, since one cannot have immediate knowledge of someone else’s personal experience.

Direct evidentials are used to report eventualities that the speaker knows from having witnessed the eventuality with one of his senses. DeHaan (1999) characterizes direct evidence in general as involving events that are “in the same deictic sphere” as the speaker.

- (5) *bkra shis stod gos sngon po zhig gyi 'dug.*
 Tashi shirt blue a wear DIRECT.
 ‘Tashi is wearing a blue shirt-‘dug (and the speaker sees it)

Indirect evidentials are used to report eventualities that the speaker knows from having made an inference from some independent state of affairs.

- (6) *sGrol ma lags gshi ka rtse la phebs yin sa red*
 Dolma HON Shigatse LOC go INDIRECT
 ‘Dolma went to Shigatse (the speaker infers from specific evidence)

In the following section, we will show that that the evidentials in Tibetan are distinct from epistemic modals and attitude verbs. This will show that they operate at the

³ Although these obviously have morphemes in common, there does not at this time exist a compositional analysis of the different meanings, so we will adopt the traditional approach and consider these to be distinct lexical items.

illocutionary rather than the propositional level. However, this will leave open the nature of their illocutionary contribution, a matter which we will address in Section 4.

2. Tests for Evidentiality

In this section we show that existing tests clearly classify Tibetan evidentials as operating at the illocutionary level. However, we would like to note at the outset that merely establishing this does not constitute an explanatory account of the meaning of evidentials. We aim for an account that predicts the inventory of possible evidential values as well as all of the distributional properties of the evidentials.

Many analyses posit two levels at which information can be added to a discourse: explicitly as in assertion, or implicitly, by presupposition or some other semantic operation adding information over and above the “at issue” assertion, as suggested by Murray (2009) for Cheyenne. In general, there are no systematic restrictions on the kind of information that can be added to a discourse in this way. We can add anything at all with a parenthetical phrase. Nonetheless, as we note above, there is a tightly restricted range of information that evidentials can add to a discourse. Why is this? Here we offer preliminary suggestions that will prove useful in answering this question, which we take to be central to our understanding of evidential systems.

The meanings of evidentials overlap considerably with those of epistemic modals and attitude verbs⁴. In the literature on Tibetan there is considerable divergence regarding the category of the evidential particles and other morphemes. (see Vokurkova 2009, Tournadre and Dorje 2003 and Garrett 2001) Morphemes regarded by some investigators as evidentials are regarded by others as modals or attitude verbs, and some authors assign distinct categories to the same particle in different contexts. (Vokurkova 2009) Nonetheless, tests that have been developed to distinguish among the various properties of these related categories clearly show that evidentials in Tibetan constitute a category distinct from both modals and attitude verbs.

2.1 Subject and case

The first test distinguishes evidentials and modals from attitude verbs: Attitude verbs license a Subject, and assign instrumental/agentive case, but neither modals nor evidentials do so.

(7) a. attitude predicate:

Mig mar lags kyis sGrol ma lags gshi ka rtse la phebs song za
Migmar HON LOC/AGT Dolma HON Shigatse LOC go PAST-DIR said
'Migmar said that Dolma went to Shigatse'

⁴ See Rooryck (2001) a and b.

b. modal:

sGrol ma lags gshi ka rtse la phebs pa dra.
Dolma HON Shgatse Loc go past apparent
'It appears that Dolma went to Shigatse.'

c. evidential:

sGrol ma lags gshi ka rtse la phebs yin sa red
Dolma HON Shigatse LOC go INDIRECT
'Dolma went to Shigatse (the speaker infers from specific evidence)

c'. **Mig mar lags kyis sGrol ma lags gshi ka rtse la phebs yin sa red*
Migmar HON AGT Dolma HON Shigatse LOC go INDIRECT
'Migmar Dolma went to Shigatse.' (Migmar infers)⁵

As we see in (8), the predicate *za* (say) licenses a subject with instrumental/agentive case, and the evidential *yin sa red* does not license a subject or assign instrumental/agentive case.

- (8) a. *bsTan 'dzin gyis mog mog zhim po 'dug za.*
Tenzin instru momos delicious DIRECT says
'Tenzin says that momos are delicious'
b. *Mog mog de tsho zhim po yin sa red*
momos those delicious INDIRECT
'Those momos are delicious' (speaker infers)

As we can see in (9) the other evidentials pattern like *yin sa red*.

- (9) a. **Nga nga lha sar sdad gyi yin*
I I Lhasa(LOC) stay IMPERF EGO
'*I I live in Lhasa'
b. **Nga bkra shis stod gos sngon po zhig gyin 'dug.*
I Tashi shirt blue a wear DIRECT.
'*I [see that] Tashi is wearing a blue shirt-'dug'

For this reason we conclude that the evidentials are distinct from the attitude verbs such as *za* (say) *bsams* (think) *shes /ha go* (know), and that there is no grammaticized hearsay evidential in Tibetan. As in English, hearsay is expressed using a full verb with an impersonal Subject.

It should be noted that Subjects may be null in Tibetan, so the attitude predicates in sentences like those in (10) resemble sentences with evidentials. However, impersonal subjects are in general null pronouns in Tibetan, so there is no reason to treat these predicates as markers of evidentiality, which cannot occur with overt

⁵ This sentence would be grammatical if *Mig mar* were interpreted as the subject of an implicit verb of speech, but it *cannot* be interpreted as governed by the final *yod sa red* evidential marker.

Subjects.

- (10) *sGrol ma lags gshi ka rtse la phebs song za*
Dolma HON Shigatse LOC go PAST-DIR said
'It is said/they say that Dolma went to Shigatse'

2. 2 Felicity under known truth/falsehood

The second test distinguishes evidentials from epistemic modals. As has been pointed out by Faller (2000), Papafragou (2000), Garrett (2001), Matthewson et al. (2006) and Peterson (2009), evidentials in certain languages differ from epistemic modals in that *modal+p* is not felicitous if the speaker knows that *p* is true or false while *evidential+p* can be felicitous in such contexts. Peterson describes this test as follows

- (11) The Known Truth/Falsity Test:
*If the use of the evidential is felicitous when the speaker knows the
prejacent is true or false, the evidential cannot be a modal.*
Peterson (2009:119)

For example, if I know that it is raining, it is not felicitous in English for me to say "It must be raining" rather than "It is raining." Similarly, if I know it is not raining, it is infelicitous to say "It might be raining" (unless I'm talking about some possible world other than the one in which I know it isn't raining.)

Evidential+p in Tibetan is felicitous when the speaker knows that *p* is true. In fact, they are felicitous only when the speaker believes that *p* is true and they are often *mandatory*. Moreover, unlike epistemic modals, evidentials do not weaken an assertion. For this reason, a sentences like those in(12) in which the speaker asserts *evidential+p* and then claims uncertainty about the truth of *p*, is ill-formed.⁶

- (12) a. **Nga lha sar bsdad gyi yod,*
I Lhasa(LOC) stay imp EGO
yin na yang nga pha gir bsdad bsam gyi med
however I there stay think IMPERF NEG
'I live in Lhasa BUT I DON'T BELIEVE I LIVE THERE'
- b. **Bbkra shis stod gos sngon po zhig gyin 'dug*
Tashi shirt blue one wear DIRECT
yin na yang ngas khong gis de gyin pa ha go gi med
however I-instr he instr it wear know IMPERF NEG
'Tashi is wearing a blue shirt but I don't know he's wearing it.'

⁶ According to Murray, hearsay evidentials are deniable in Cheyenne but this is at least unusual, and it may be that these are in fact disguised attitude ascriptions with null subjects. This requires further study.

- c. *sGrol ma lags gshi ka rtse la phebs yin sa red
 Dolma HON Shigatse LOC go INDIRECT
 yin na yang khong pha gir phebs pa red bsam gyi med.
 But I INST she INST There Go PAST BELIEVE NEG.
 ‘Dolma went to Shigatse (the speaker infers from specific evidence) but I don’t
 believe she went there. (Impossible to say.)

Thus we see that Tibetan evidentials are also distinct from epistemic modals in that they do not weaken assertoric force and are felicitous when the speaker knows the sentence asserted to be true. Attempts to cancel commitment to the asserted content lead to Moore’s paradox, (Chan 2010) unlike attempts to cancel commitment to modalized sentences.

2.3 Deniability/Assent

The third test also distinguishes evidentials from modals. Many note that it is possible to deny or agree with the appropriateness of a modal, but this is impossible for evidentials in some languages, and in particular in Tibetan. That is, disagreement with a sentence governed by a modal could either be disagreement with the matrix sentence or disagreement with the felicity of the modal operator. Denial of a sentence containing an evidential, however, can *only* be interpreted as denial of the asserted content, not of the felicity of the evidential. Peterson (2009) describes this test as follows:

(13) The Dissent Test:

One cannot disagree with the content contributed by an illocutionary operator because a speech act does not have a truth value. (2009:124)

Evidentials in many languages pattern with illocutionary adverbs (eg. *frankly*) and other illocutionary operators (eg *wow*) in that they cannot be directly denied or assented to.

- (14) a. Mary: “Bill must be the culprit.”
 John: “That’s not true - He might be, but not necessarily.”
- b. Mary: “Frankly, Bill is annoying.”
 John: #”That’s not true – you’re being evasive, not frank!”

By this test, evidentials in Tibetan are clearly distinct from modals:

- (15) a. Tashi: nga la kang pa yod
 I house have EGO
 ‘I have a house (and I know from my personal experience)’
 Dorje: #Yod ma red. Nga tshos kyed rang la di hang hob te nyos pa yin.
 be neg COP we-INSTR you loc it surprise bought EGO
 #That’s not true – we just got it for you as a surprise.

- b. Tashi: *sGrol mas mog mog zas song*
 Dolma momo ate DIR
 ‘Dolma ate the momos (and I witnessed it)’
 Dorje: *#Ma song. Khyed rang gis mo mthong med pa.*
 neg DIR you INSTR she see neg
 #‘That’s not true – you didn’t see it.’
- c. Tashi: *sGrol ma gshis ka rtse la phyin yod sa red*
 Dolma Shigatse LOC went INDIRECT
 ‘Dolma went to Shigatse (I have indirect evidence)’
 Dorje: *#Yod sa ma red. Khyed rang la khungs skyel ra sprod med pa.*
 be neg COP you LOC evidence maintain NEG
 #‘That’s not true – you don’t have that kind of evidence!’

2.4 Summary

In summary, unlike attitude verbs, Tibetan evidentials do not license subjects or instrumental/agentive case. Unlike epistemic modals, Tibetan evidentials are felicitous when the speaker knows that the proposition itself is true, do not weaken assertoric force, and cannot be denied or assented to as part of the at-issue meaning of the sentence. All and only the morphemes we treat as evidentials in Tibetan pass all of these tests, and hence constitute a category distinct from both attitude predicates and modals.

The tests that we have applied in this section are designed to distinguish categories that contribute to the truth-conditional meaning of the sentence (predicates, modals) from those that do not (illocutionary adverbs, parentheticals). We have established that Tibetan evidentials pattern with the latter group.

How does such information get introduced into the discourse? Evidentials have all of the hallmarks of what Potts (2005) identifies as conventional implicatures:

- (16) a. CIs are part of the conventional meaning of words.
 b. CIs are commitments, and thus give rise to entailments.
 c. These commitments are made by *the speaker of the utterance*
 ‘by virtue of the meaning of’ [emphasis and quotation marks in original]
 the words he chooses.
 d. CIs are logically and compositionally independent of what is ‘*said ...*’ i.e.
 independent of the at-issue entailments.

(2005:11)

It would be hence reasonable to think of the semantic value of evidentials in terms of conventional implicatures. Nonetheless, whether we classify evidentials as presuppositional (Izvorski 1998, Chung 2005) or as introducing conventional

implicatures, the question we raised above regarding their restricted inventory remains unanswered. Illocutionary adverbs and parentheticals, for example, both introduce conventional implicatures in Potts' sense, but they can be used to convey an unlimited range of meanings, and they are always optional. Evidentials in languages like Tibetan, on the other hand, are often obligatory. In other words, evidentials in Tibetan are *grammaticized*, and hence their values are part of a restricted paradigm. The theory that we will develop below explains these restrictions by treating evidentials as encoding relations among situations in much the same way that tense encodes relations among times.

In fact, our treatment of evidential paradigms is potentially independent of the level at which they operate. Let us consider four different proposals for the formal semantics of direct evidentials. Recent proposals by Murray, Faller, Garrett and Matthewson et al. characterize direct evidentials as shown in (17).

(17)a. Murray (2009), for Cheyenne:

$$\begin{aligned} \text{co}[(\text{Floyd sang-direct})] &= \{w \mid \text{co } j \Box p \mid \text{Dst}(\Box v_0: (11b)^{\text{Mig}}(w) = \{p\})\} \\ &= \{w \mid \text{co } l \mid [[\text{CRT}]]^{\text{M}}(w)([[i]]^{\text{M}})([[\Box w.\text{sang}(w, \text{Floyd})]]^{\text{M}}) = 1\} \\ &= \text{C1} \end{aligned}$$

b. Faller (2002), for Quechua:

speaker asserts p , believes p , has **Best Possible Grounds** for p
 adds $\text{Bpg}(s, \text{Bel}(s, p))$ to *sincerity condition*, increases strength to +1

c. Garrett (2001), for Tibetan⁷:

$[\Box][\text{Dem}(l) \Box \text{eat}(l, \text{Tashi})]$

d. Matthewson et al. (2006), for St'at'imcets:

$[[\text{-an}(f)(B)(w)(\Box)]]$ is only defined if for all worlds w' , $w' \Box B(w)$ iff **the perceived evidence** in w holds in w' , and f is a choice function of type $\langle st, st \rangle$ such that $f(B(w)) \Box B(w)$.

According to each of these proposals, evidential categories such as direct and indirect are themselves semantic primitives. We can summarize these distinctions in the table in (18). Although the proposals differ in significant ways, they share the presupposition that evidence type is a semantic primitive, which we will refute below.

(18)

Author	what distinguishes the category of <u>direct</u> evidence
Murray	CRT ("speaker is certain")
Faller	BPG ("speaker has the best possible grounds")
Garrett	$\Box \text{DEM}(l)$ ("there is a demonstrative location")
Matthewson et al.	"the perceived evidence"

We will not consider the relative merits of the proposals in (17). In fact, it is hard to see how one could do so without first determining what *CRT*, *BPG*, *DEM(l)* and "perceived

⁷ In Garrett's analysis the meaning of direct evidentials also includes that the speaker knows p .

evidence” actually mean, and this would require settling deep issues in epistemology in order to develop a semantic theory. Instead, we will consider an alternative to taking “certainty” “best possible grounds” or “perceived evidence” as semantic primitives. Following Speas (2010) we will argue that each evidential type encodes an abstract set of inclusion and accessibility relations. In the following section we focus in on the direct evidentials in Tibetan, and show that they provide strong support for this relational approach to the semantics of evidentials.

3. Direct evidentials

The three Direct evidentials of Tibetan are repeated in (19).

- (19) a. *kha sang khong 'khrom la slebs 'dug*
 yesterday he market (LOC) arrived 'DUG
 'Yesterday he arrived at the market' (and the speaker witnessed the event')
- b. *kha sang khong 'khrom la slebs shag*
 yesterday he market (LOC) arrived SHAG
 'Yesterday he arrived at the market' (and the speaker witnessed the event')
- c. *kha sang khong 'khrom la slebs song*
 yesterday he market (LOC) arrived SONG
 'Yesterday he arrived at the market' (and the speaker witnessed the event')

As noted above, *song* incorporates past tense⁸, whereas *'dug* (and *shag*) are unmarked for tense and can therefore be used to report either past or nonpast eventualities.⁹ We will first explain the nature of direct evidence, and then we will explore the semantic distinctions between these four direct morphemes.

Direct evidentials are used to report information that the speaker knows through direct perception of the event or state of affairs. Direct evidence is distinct from Ego evidence in that Direct evidence involves witnessing a distinct event while Ego evidence involves simply experiencing the event as a participant. For example, I would use the direct evidential to report that Mary drank tea yesterday if I was there and saw the event, whereas I would use the Ego evidential to report that I myself drank tea.

Witnessing is also distinct from making an inference based on perceptible evidence. Direct evidentials are used for the former, and indirect for the latter.¹⁰ For example, if one saw muddy footprints and inferred that Tashi wore his boots indoors, or

⁸ Garrett actually treats *byung* as an ego evidential.

⁹ The interaction of evidentiality and tense seems to be different in Tibetan than in Sherpa as described by Woodbury (1986). In Sherpa, the nonpast direct evidential (*-nok*) expresses evidence acquired in the present, so when this morpheme is used with past tense, it takes on a meaning of inference based on some presently relevant result.

¹⁰ Indeed, Tibetan distinguishes two indirect evidentials, one of which reflects inference based upon specific perceptible evidence and one of which reflects general inference. See de Villiers et al.

heard the water running and inferred that Tashi is washing dishes, one would report these events using an indirect evidential. The direct evidential could only be used if the speaker saw Tashi wearing his boots or directly observed the dish-washing.¹¹

- (20)a. vision: *bKra shis stod gos sngon po zhig gyin 'dug.*
Tashi shirt blue a wear DIR
'Tashi is wearing a blue shirt-'dug (and the speaker sees it)
- b. hearing: *dKun dg'as gzhas gtang gi 'dug.*
Kunga (agent/ instrumental case) song sing DIR.
Kunga is singing.(and the speaker hears it)
- c. touch: *lug gi bal 'di 'jam po 'dug*
sheep (agent) wool this soft DIR
This sheep's wool is soft. (and the speaker feels it)
- d. taste *ja la tsha min 'dug*
tea (oblique case)salt negative DIR
'There is no salt in the tea.' (and the speaker tastes it)
- e. smell *spos de dri ma zhim po 'dug*
incense this smells good DIR
'This incense smells good.' (and the speaker smells it)
- f. internal *nga 'gyod pa skyes kyi 'dug*
I guilt feel DIR
'I feel guilty' (and the speaker feels it)

Both 'dug and shag are used to report eventualities that the speaker knows to be true via visual/sensory experience. As we can see from the examples in (19), the conditions for use of the four Direct evidentials overlap considerably. In the following sections we focus on characterizing the distinction between the two nonpast direct evidentials.

3.1 ¶Dug, and shag

In some contexts, 'dug and shag seem to be virtually interchangeable. For example, if the speaker was at the market yesterday and saw someone arrive, the speaker could say either (21)a or b.

- (21) a. *kha sang khong 'khrom la slebs 'dug*
yesterday he market (LOC) arrived 'DUG
'Yesterday he arrived at the market' (and the speaker witnessed the event')

¹¹ Some authors (for example Garrett 2001) have noted that it seems puzzling that the direct evidential in Tibetan is used to report internal sensations, such as hunger. Most languages that distinguish ego from direct evidentials use the ego evidential to report such knowledge. However, the use of direct for knowledge of inner states follows from the assumption within Tibetan culture (and Buddhist culture in general) that there are six senses: vision, hearing, touch, taste, smell and the introspective sense that yields knowledge of one's own inner states, such as thoughts, emotions and sensations. The direct evidential is used when reporting things that the speaker came to know directly via any of these senses.

- b. *kha sang khong 'khrom la slebs shag*
 yesterday he market (LOC) arrived 'DUG
 'Yesterday he arrived at the market' (and the speaker witnessed the event')

However, '*dug* and *shag* differ in eleven distinct and apparently unrelated ways:

- (22)
- a. '*dug* can be used to report a state of affairs or an event; *shag* can only be used to report an event.
 - b. With certain verbs, '*dug* indicates that speaker witnessed the entire event/state while *shag* indicates that speaker witnessed the result or ending state of the event.
 - c. In the present tense, *shag* but not '*dug* requires a special auxiliary.
 - d. When the subject of the sentence bears agentive/instrumental case, *shag* appears to have an inferential rather than direct meaning.
 - e. '*dug*, but not *shag*, can appear in the antecedent of a conditional.
 - f. '*dug*, but not *shag*, can appear in a question.
 - g. '*dug*, but not *shag*, can appear in the scope of negation.
 - h. *shag* can only be used to report internal states when accompanied by an auxiliary
 - i. *Shag*, but not '*dug*, can be used in supplication.
 - j. In a future tense construction, '*dug* indicates speaker certainty, whereas *shag* indicates personal assurance.
 - k. '*Dug*, but not *shag* can be used in demonstratives.

This is, to say the least, a puzzling set of distinctions. It would be remarkable if a single account predicted them all. In Section 4.2 we will outline our proposal for the semantic contribution of direct evidentials. In Section 4.3 we will show how our proposal accounts for the first four differences in a natural way; in section five we will demonstrate that this account predicts and explains the remaining seven distinctions.

3.1.1 Events vs. States of Affairs

First, '*dug* can be used to report the existence of a state of affairs or the occurrence an event, whereas *shag* can only be used to report an event. Thus, the report of the event (21), in which either '*dug* or *shag* can be used, contrasts with the report of a state of affairs (23), in which only '*dug* can be used.

- (23)a. *kha sang 'khrom la mi mang po 'dug*
 yesterday market (LOC) person many '
 'Yesterday there were a lot of people at the market (and the speaker saw them)'
- b. **kha sang 'khrom la mi mang po shag*
 yesterday market (LOC) person many '
 'Yesterday there were a lot of people at the market (and the speaker saw them)'

These facts cannot be explained by simply saying that *shag* is restricted to reports of events and *'dug* can used with reports of either events or states of affairs. For one thing, we will see below that that *shag* is not identical to *'dug* when used with reports of events. Further, there are some types of events that cannot be reported using *shag*. For example, (24)b is ill-formed. This shows that *shag* is used in reporting only some subset of event types, but the nature of this subset is not obvious. This restriction is interesting in light of the fact that *shag* is very common in everyday speech.

- (24) a. *mdangs dgong* bKra shis sngur pa rgyabs kyi *'dug*
 ‘Last night Tashi was snoring (*'dug*)’
 b. **mdangs dgong* bKra shis sngur pa rgyabs *shag*
 ‘Last night Tashi was snoring (*shag*)’
 c. *mdangs dgong* bKra shis sngur pa rgyabs song
 ‘Last night Tashi snored (*song*)’

3.1.2 Events vs. Results

Second, with certain verbs that describe situations in the past, *shag* can be used if the speaker witnessed only the *result* of the event, whereas *'dug* is used only if the speaker witnessed the event itself.

- (25) a. *chags 'dug*
 broke *'dug*
 ‘It broke/was broken’ (and the speaker saw it break)’
 b. *chags shag*
 broke SHAG
 ‘It broke/was broken’ (the speaker sees the pieces but did not see it break)’

The facts in (24) and (25) might suggest that *shag* indicates that the speaker witnessed the result of an event while *'dug* indicates that the speaker witnessed the actual event. This could explain why *shag* cannot be used to report states: these have no inherent result. Moreover, perhaps the relevant property of events like snoring is that they have no inherent result. A proposal along these lines has been made by DeLancey (1986,1990), who suggests that different evidentials indicate that the speaker has knowledge of different links of the causal chain of an event. This is an intriguing possibility. However, certain cases where *shag* requires a special auxiliary make the picture less clear.

3.1.3 The auxiliary *bsdad*

When reporting an event in the present, *shag* cannot be used without the auxiliary *bsdad*. When this auxiliary is included, the sentence indicates that the speaker witnessed the event itself and not some result. This auxiliary is always required when reporting events in the present, and is required with certain verbs in the past.

□

- (26)a. Ama lags kha lag bzos kyi 'dug.
Mother (HON) food make (present continuous) DIR('dug)
Mother is cooking. (witnessed)
- b. Ama lags kha lags bzos bsdad shag.
Mother (HON) food make (PC) AUX DIR(shag)
Mother is cooking. (witnessed)
- c. *Ama lags kha lags bzos shag.
Mother (HON) food make (PC) DIR(shag).
Mother is cooking. (witnessed)

A speaker could say (26)b if she observed Mother cooking even if she had not seen the resulting food. Moreover, (26)c is impossible. If shag simply meant that the speaker witnessed an inherent result, we would expect (26)c to be possible if for example the speaker sees Mother taking the food out of the oven and putting it on the table.

The word *bsdad* can occur as a main verb meaning to sit, to stay, or to remain, as shown in (27). As an auxiliary verb in the present tense, it has a meaning that is sometimes called the present continuous, and is sometimes translated into English as present perfect. This use of *bsdad* is shown with the neutral evidential in (28).

(27) *Nga a ri la bsdad kyi yod.*

I America LOC stay GEN is (EGO).

I live in America.

(28) *bKra shis slob sbyong byed nas bsdad yod red*

Tashi study do ABL AUX IS EVID

'Tashi continues to study/ has been studying'

(29) *bKra shis slob sbyong byed kyi yod red*

Tashi study do IMP IS

'Tashi is studying'

The present perfect in English has been analyzed as introducing a presupposed relevant resultant state, (see McCoard 1978, Klein 1992, Kamp and Reyle 1993 and Portner 2003, a.o.) so it might be suggested that the use of *bsdad* with *shag* supports the view what *shag* means that the speaker witnessed a result. In fact, Tournadre (1991) classifies *shag* as an "inferential perfect," This cannot be right for several reasons. First, the meaning of *bsdad* as a main verb suggests that it contributes continuous aspect but no presupposed result, so that the translation into English as a simple present perfect sentence is misleading. Sentence (30)a means that Tashi was continuously in Delhi, and it is not clear that it carries any presupposition about a resultant state. In order to get a present perfect meaning, an additional auxiliary must be added, as in (30)b.

(30)a. *bKra shis ldili la bsdad yod red*

Tashi Delhi LOC stay INDIRECT

'Tashi is in Delhi (speaker has indirect evidence)'

- b. bKra shis ldili la bsdad bdad yod red
 Tashi Delhi LOC cont perf INDIRECT
 'Tashi has been to Delhi.(speaker has indirect evidence)

Second, bsdad + shag cannot be used to report states, but there is no such restriction on the English present perfect.

- (31) * bKra shis chu tshod gnyis ring skyid po bsdad shag
 Tashi hours two abl happy perf? DIRECT

(31) is not a possible way to say 'Tashi has been happy for two hours.' Thus, an analysis of shag as conveying that the speaker witnessed a result of the event is tempting but problematic.

A resultant state is a sub-part of a complex event. In many analyses of verbs like 'break,' a result is a discrete part of the verb's lexical conceptual structure. This led us to ask whether what is relevant for the use of shag is not results but sub-parts of events. The following scenarios tease apart the uses of 'dug and shag as used to report the event of Mother's cooking.

□

(32) Scenario A:

You have been with Mother all day. You watched her get out the food and begin to cook, and you have been watching her cook all along. Your brother calls into the kitchen and says he's hungry. You report that Mother is cooking by saying.....

□

- (33) preferred: a. Ama lags kha lag bzos kyi 'dug.
 Mother (HON) food make (present continuous) DIR('dug)
 Mother is cooking. (witnessed)
 odd: b. Ama lags kha lags bzos bsdad shag.
 Mother (HON) food make (PC) AUX DIR(shag)
 Mother is cooking. (witnessed)

(34) Scenario B:

You come into the house, and see that Mother is cooking. You go into the living room, and your brother asks what is going on. You report that Mother is cooking by saying.....

- (35) OK: a. Ama lags kha lag bzos kyi 'dug.
 Mother (HON) food make (present continuous) DIR('dug)
 Mother is cooking. (witnessed)
 fine: b. Ama lags kha lags bzos bsdad shag.
 Mother (HON) food make (PC) AUX DIR(shag)
 Mother is cooking. (witnessed)

The use of bsdad shag suggests that the speaker has witnessed some sub-part of the cooking. 'Dug is preferred if the speaker intends to report witnessing the entire event. Therefore bsdad shag is odd in scenario A, where the speaker has witnessed

the entire event. Events such as cooking have the property that each part of the event is also a cooking event. That is they are non-quantized (Krifka 1989). Therefore if the speaker witnessed part of the event, as in scenario B, she can either report having seen the event ('dug) or having seen a part of it (shag).

Events like a vase breaking are quantized. A sub-part of a vase-breaking event is not itself a vase-breaking event. If the speaker has just seen broken pieces, she cannot claim to have seen the entire event. However, she could claim to have seen a sub-part of the event. Thus, we suggest that the direct evidential 'dug conveys that the speaker has witnessed the event, while the direct evidential shag conveys that the speaker has witnessed a sub-part of the event. In Section 4 we will refine this, removing explicit reference to "speaker" and "witness," but will take this difference between the entire event and a sub-part as a starting point.

3.1.4 Agentive/Instrumental Case and Loss of Directness

The fourth difference between 'dug and shag confirms that an analysis in terms of results is insufficient. When the subject of the sentence bears instrumental case, the use of shag seems to indicate that the speaker made an inference from some evidence. For example, sentence (36) would be used if the speaker saw some crumbs or Tenzin's empty plate. Although seeing crumbs or an empty plate might be treated as witnessing a result of the food was eaten, the speaker must supply additional knowledge and make an inference in order to know that Tenzin ate the food. Moreover, this use of shag is felicitous only if the subject bears agent/instrumental case. For example, (37) cannot be used if the speaker learned that he arrived by seeing some tangible result such as his friends cheering, his footprints, etc.

- (36) bsTan dzin gyis kha lags bzas shag.
 Tenzin (agent/instrumental case) food eaten DIRECT.
 Tenzin has eaten the food.
- (37) *kha sang khong 'khrom la slebs shag*
 yesterday he market (LOC) arrived SHAG
 'Yesterday he arrived at the market' (and the speaker witnessed the event')

We defer a detailed discussion of these cases until after we have presented the basic outline of our analysis. However, at this point we note that Agha (1993) explains that "[The sentence] Tashi sent the letter" with agt/instr marking] has the sense that Tashi is picked out differentially from among a number of possible people who might have sent the letter" (1993:68) In other words, the sentence triggers a presupposition that Tashi's sending the letter is a subset of some larger set of possibilities.

3.1.5 Summary

It is not obvious how the distinctions between 'dug and shag noted in (22) follow naturally from any single principle. In fact, this combination of properties is *a priori* quite puzzling. Shag normally cannot be used to report states, yet with certain verbs it seems to indicate that the speaker witnessed the end *state* rather than the entire event, and in the present tense shag requires an auxiliary that seems to denote not an event, end

state or result, but an ongoing state. We considered the possibility that the observed differences follow from the fact that *'dug* indicates that the speaker witnessed the event or state of affairs, while *shag* indicates that the speaker witnessed a result, but this fails to explain the necessity for the special auxiliary with *shag* in the present tense and the apparently inferential use of *shag* when the Subject has instrumental Case.

We have suggested that *'dug* is used when the speaker witnessed the entire event, while *shag* is used when the speaker witnessed part of the event. This, however, does not yet explain all of the relevant phenomena. For one thing, with verbs like *'break* observing just any sub-part of the event is not a sufficient condition for the use of *shag*. Moreover, the use of *shag* with sentences whose Subject bears agentive/instrumental case doesn't seem to require that the speaker have witnessed any part of the event at all.

Part of the problem is that we have been discussing the conditions on these evidentials in terms of event types and/or predicate types. It is not surprising that this would lead to some confusion, since evidentials do not operate over predicates or events. We will show in the following section that the distinctions become clear if we seek to understand not the reported event or predicate but the situation in which the speaker obtained evidence. Evidentials do not simply impose felicity conditions on reports of certain types of events. They express a relation between the reported situation and the situation in which the speaker came to know of the relevant situation.

4. An Analysis

4.1 Evidential Situations

The data discussed in the previous section suggest that the difference between *'dug* and *shag* has something to do with results, continuations or sub-parts of an event. However, none of these alone suffices to characterize the two direct evidentials. In this section we will argue that direct evidentials express a relation of inclusion between the situation being reported and the situation in which the speaker acquired the knowledge. Because the direct evidentials express an inclusion relation, their felicity conditions often require some event/situation that has sub-parts or is in some sense extended. We will argue that the difference in meaning between *'dug* and *shag* is the direction of the inclusion relation. We will show that the entire range of puzzling phenomena noted above can be neatly explained by this analysis.

Speas (2010) proposes that all evidentials express relations among situations, and accounts for the limits on possible evidential categories by showing that the typology of evidential meanings follows from the possible relations. This theory has its roots in the observations of Iatridou (2000) and Izvorski (1998) the evidential/modal system in natural language shares many properties with the tense/aspect system, and indeed often makes use of the same morphology. Speas' proposal is in this spirit: evidentials are limited for the same reason that tense and aspect paradigms are limited. Evidentials express the same relations as tense/aspect, only the relata are situations

rather than times. Direct evidentials in this system encode a relation of inclusion between the situation being reported and a reference situation. Below we will discuss this inclusion relation in more detail and will show how Speas' theory allows us to account for the differences between the two direct evidentials in Tibetan. In Section 6 we will briefly outline how Speas' theory treats the other evidential categories, and show how our analysis of the direct category can be extended to the Tibetan ego and indirect evidentials.

The idea that direct evidentials express an inclusion relation between situations has its roots in de Haan's (1999) observation that direct evidence involves events that are "in the same deictic sphere" as the speaker. Nikolaeva (1999) sketches an account of the relationship between tense and evidentials in Ostyak that uses situation variables, and proposes that the various evidential categories arise from the different possible relations among situations. Ostyak evidentials are morphologically fused with tense and there is no morphological distinction among types of evidence, so in Nikolaeva's analysis it is tense that encodes the different relations.

Others, most notably Chung (2005, 2006), have drawn attention to the close relationship between tense/aspect and evidentials. Chung argues that Korean has "spatial deictic tenses"¹², and when these combine with certain aspect or mood morphemes, the result is an evidential meaning. Direct Evidential meanings result when the Speaker's location at the event time, which Chung formalizes as the "speaker's perceptual trace," is the same as the event location at that time. This echoes de Haan's observation: If the speaker is present at an event when it takes place, he has "direct" evidence. In Tibetan, tense is independent of the distinction between direct and indirect evidence. As we have seen, the direct evidential *song* incorporates past tense. *Dug* and *shag* are unmarked for tense, but otherwise their evidential meaning is parallel to *song*. Thus, whatever meaning the evidentials contribute, it is independent of tense. Hence our theory follows Nikolaeva's general framework, although we propose a model according to which evidentials denote relations between situations, not between times.¹³

One virtue of the proposals of Nikolaeva and Chung is that their analyses make no specific reference to "evidence" as a primitive. The denotation of "evidence" cannot be identified independent of that for which it is evidence; anything in the universe could be evidence for something. A state of affairs is only evidence insofar as it bears some relation to the thing it is evidence for. A theory of evidence must therefore be a theory of relations; hence we propose that the different categories of evidentiality are defined in terms of relations between situations. Our theory shares this virtue, and also eliminates all new primitive, even those such as "speaker's perceptual trace."

Let us begin by considering Garrett's (2001) claim that Tibetan direct 'dug occurs

¹² Specifically, she argues that Korean *-te* and *-ney* are spatial deictic tenses, while *-nun* and *-essess* are simple deictic tenses.

¹³ See McKenzie (2007) for an account of direct vs. indirect evidentials in terms of situations.

only in the context of stage level predicates, which must be *observable* and *locatable*. We will show that while his generalization is not correct, it gives us some insight into the relationship between information being reported and the kind of situations in which one might learn that information.

Garrett (2001) proposes that *‘dug* “projects a situation, by which [he means] a rather general state of affairs, i.e. an event or state.” (p. 52) The meaning of *‘dug* includes a “demonstrative component”, which “requires that the situation projected by the verb be stage-level, or as I will often say, locatable.” Garrett does not treat the situation projected by *‘dug* as distinct from the situation of which the predicate is true. Rather, *‘dug* contributes a demonstrative and existential binding of a location variable (as well as a pragmatic component involving speaker’s knowledge). He claims that predicate in a sentence with *‘dug* must be stage-level, and in cases where this seems not to be the case, such as he suggests that an individual level predicate has been coerced into a stage-level predicate.

- (38) a. *dmar.po* *‘dug*
 red Dir
 ‘It’s red.’ (Garrett 2001:68)

The problem is that such cases are not at all unusual or marginal. *‘Dug* occurs with predicates of color, possession, habits and certain internal states, all of which would generally be considered to be individual-level predicates. He concludes that “...not every use of *‘dug* can be analyzed in exactly the same way.” (2001:89)

The examples in (39), which Garrett takes to be problematic¹⁴, are instructive.

- (39) a. “He is hungry these days *‘dug*”
 b. “He is hungry just now *‘dug*”

Garrett marks (39)b as ungrammatical and (39)a as grammatical, and speculates that predicates like hungry “may become an observable predicate if it projects a situation which is stretched out over time.” However, (39)b is actually not impossible. And the reason for this is that what is important is not the nature of hunger, or any other property, but the nature of the situation the speaker has observed. Whenever there are contexts where an eventuality involving a given predicate could be observed, a direct evidential can be used.

Consider the kinds of contexts in which the sentences in (39) would be appropriate.

Context A:

Over the past few weeks the speaker has often seen the dog rummaging in garbage

¹⁴ This claim is discussed in a footnote (on p. 80), and Garrett gives only the English translations for the sentences.

dumps, following tourists with food around, trying to take food away from other dogs and gulping down any food it is fed.

For this context, sentence (39a), for which we supply the complete Tibetan sentence, is appropriate:

- (39) a. *deng sang kho grod khog ltogs gi 'dug.*
these days he hungry IMPERF DIR
'He is hungry these days - *'dug*'

Context B:

The speaker sees the dog rummaging around in the garbage dump, following tourists with food around, trying to take food away from other dogs and gulping down any food it is fed.

For this context, sentence (39)b is appropriate:

- (39) b. *da lta kho grod khog ltogs gi 'dug.*
now he hungry IMPERF DIR
'He is hungry now just now - *dug*'

As we see, the temporal difference is irrelevant to whether *'dug* can be used. What is important is that the contexts described involve behavior that we take to be typical of a hungry dog. The direct evidential can be used because the situations described in the contexts, being typical of a hungry dog, be taken to count as having observed that the dog is hungry.

Even in English witnessing a physical manifestation that exemplifies an internal state licenses us to talk as if we had witnessed the internal state, as in "I have seen John angry." When we say this we do not mean that we saw an emotion. Rather, we mean that we saw a situation including such things as John's red face, John's wadded-up fists, John yelling, etc. that are typical of situations in which being angry is true of John. The predicate 'be angry' does not entail having a red face, yelling, balling up fists, nor do a red face, yelling, and balled-up fists entail being angry. These properties are properties of typical situations in which John is angry. As Wittgenstein writes:

We see emotion—as opposed to what?—We do not see facial contortions and *make the inference* that he is feeling joy, grief, boredom. We describe the face immediately as sad, radiant, bored, even when we are unable to give any other description of the features—Grief, one would like to say, is personified in the face. This is essential to what we call "emotion." (PI 570)

Typical situations in which Mary is angry might involve different properties – perhaps stony silence, slammed doors and clenched teeth. The point is that witnessing

a situation of which an internal state attribution is true is expressed as though it “counts” as having witnessed the internal state. Of course the felicity standards for the use of a particular evidential may vary culturally as well as contextually, but this does not undermine the claim that in certain contexts it may be felicitous to use a direct evidential to report another’s emotional state.

We see, then, that it is possible to come to know an individual-level property by witnessing stage-level situations. This is how we often come to know individual level properties, such as that *x* is a kind person, *x* is characteristically helpful, people in *x* profession are generally available, etc. The fact that I learned that Harry is characteristically helpful through seeing him do the dishes, help old ladies across the street, stop to find a stranger’s missing contact lens, etc. does not make ‘is helpful’ a stage-level predicate.

Garrett’s observability criterion is therefore not a restriction on what kinds of *predicates* can occur with direct evidentials. Rather, it is a characterization of how the situation in which the speaker came to know of an event or property is *related* to that event or property. In other words, the felicity conditions on the use of evidentials reflect not the type of predicate used in the sentence but rather the relation between the type of situation reported and the type of situation in which the speaker acquired the information.

Garrett notes correctly that we can only witness things that are observable. Once we start talking about observing “typical situations,” confusions begin to arise about how to distinguish inference from direct observation of typical situations. This confusion is due to the assumption that our aim is now to characterize the situation in which the speaker obtains the information. As noted above, such an aim would be impossible to fulfill. There is nothing inherent in a dog rummaging through garbage or John turning red that makes either count as any particular type of evidence. Such examples show that the line dividing a state of affairs that was witnessed from one that formed the grounds for an inference is not intrinsic to in the state of affairs itself. Instead, we will show, the crucial distinction has to do with how the situation being reported by the speaker is related to the situation in which the speaker came to know of it.

A central idea in situation semantics is that assertions are about particular situations. It is interesting that some of the best-known examples that illustrate this have to do with situations of witnessing. For example, Klein (1974) describes a witness in a trial testifying about the scene of the crime. The witness says “There was a book on the table. It was in Russian.” This statement is true about the situation in which she was a witness.¹⁵ This situation about which an utterance is made is variously called “topic situation”, “reference situation”, “focus situation” or “described situation.” We will

¹⁵ Klein calls attention to the fact that the second sentence is in the past tense, even though the book is presumably still in Russian. He claimed that this shows that past tense relates utterance time to topic time, not to event time.

call this the “Information Situation”, because with sentences involving evidentials it is the situation in which the speaker acquires the information upon which she bases her assertion.¹⁶

If Klein’s witness were a Tibetan speaker, she would use a direct evidential in stating that there was a book on the table.

(40) *Cog tse gang la deb zhig ‘dug.*
 table on LOC book INDEF DIRECT
 ‘There was a book on the table’

This assertion is *about* a situation to which the speaker was a witness. Kratzer (2007) explains that “The situations or events that exemplify a proposition can then be defined as the ‘minimal’ situations in which the proposition is true” (2007:18) The minimal situation of the book being on the table, then, is a part of the witnessing situation. When the speaker is on the witness stand, the topic situation is the situation in which she witnessed the book on the table. When she testifies by saying (40), she is saying that this Information Situation included the situation of the book being on the table.

Thus, we claim that what direct evidentials express is not based on some semantically primitive notion of “witness” or “visual/sensory evidence.” Rather, evidentials specify the relation between the minimal situation exemplified by the proposition (basically, what is being reported), which we will call the Evaluation Situation (ES), and the situation in which the speaker obtained the information that validates the assertion, which we will call the “Information Situation.” We claim that direct evidentials in Tibetan convey a relation of inclusion between these two situations.

(41) Information Situation(IS): the minimal situation in which the Speaker came to know that p
 Evaluation Situation(ES): the minimal situation of which p is true

An assertion of p+evidential not only adds p to the common ground of the discourse; it also adds the information that IS includes ES. We assume that the common ground always includes universal pragmatic information such as Grice’s maxims. Whenever an utterance is made, the common ground already includes the fact that the speaker is conveying information that she acquired somehow as well as the fact that assertions are intended to be true of a situation in the common ground. That is, IS and ES are given as part of the basic set of pragmatic assumptions made in any communicative situation. An assertion of p+evidential adds “p is satisfied by ES” to the

¹⁶ Because of varying terminology in various applications of situation semantics, the situation that we are calling the IS won’t always directly correspond to what other researchers call the topic, reference, described or focus situation. The important point is that evidentials specify a relation between the situation we are calling IS and the situation being reported.

common ground and also adds a relation between IS and ES. The evidential does not change the type of speech act, nor does it affect the truth conditions of the sentence. Rather, it adds a piece of information to the common ground regarding how p is related to the speaker's acquiring knowledge that p.

For example, suppose a speaker utters (42).

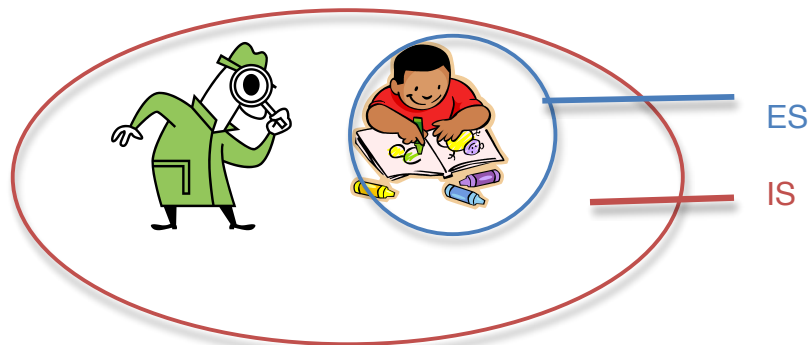
- (42) *bKra shis yi ge 'bri kyi 'dug*
 Tashi letter write PRES.DIR
 'Tashi is writing a letter' (and the speaker is witnessing the act)

The Evaluation Situation is the situation of Tashi writing a letter. This sentence is true iff Tashi is writing a letter (ES). The IS is the situation within which the speaker learned that Tashi is writing a letter. The use of the evidential 'dug adds to the common ground the information that the relation between IS and ES is one of inclusion. 'Dug updates the common ground with:

'dug: ES \sqsubset IS

Thus, the assertion will be *true* if, and only if Tashi is writing a letter, but *felicitous* only if and if ES is included within IS. In the case of sentence (42), what is conveyed is that *Tashi is writing a letter* is true of a situation that is contained in the situation where the speaker acquired her knowledge. Note that the contribution of the evidential is about the relation between the IS and the ES, not about any part of the ES. This provides a more elegant and detailed explanation for the fact that evidentials do not contribute to the truth conditions of sentences and so cannot be denied than simply saying that they are illocutionary.

(43)



It is important to note that the inclusion relation holds between situations, not events or worlds. Although the picture in (43) shows Tashi writing a letter (or its closest clip art equivalent), there is no requirement that the entire temporal span of Tashi's letter writing be included in the situation in which the speaker comes to know this information. The ES does not have to involve the entire time span during which Tashi was writing a letter.

This approach to evidentials does not add any new primitives to the grammar, and

it eliminates the need to include specific reference to “witnessing” “learning through seeing” “learning through senses” or the like to the linguistic representation. The logical form of sentence (42) would be schematically as in (44).

- (44) $\Box p \rightarrow \Box w[\text{writing}(w, \text{a letter}, \text{Tashi})]$
 ES \Box IS

The fact that the IS involves witnessing follows from our world knowledge about how one comes to know things. If I come to know something in a situation that includes me, the thing I learn about and nothing else, there is no way for the information to become part of my epistemic state except by perceiving it. Suppose, for example, that Tashi is writing a letter and I am right there, but I’m oblivious and don’t perceive it. I would not acquire knowledge of it. If the situation within which I acquire the knowledge contains ES but also contains someone telling me, or some evidence I use to make an inference, then this is not a minimal situation.

We therefore see that direct evidentials encode an inclusion relation between ES and IS, and that ‘*dug*’ indicates that IS includes ES. If our approach is on the right track, we might expect to find an evidential in some language that encodes inclusion, but in the other direction. That is, we might expect to find an evidential indicating that the Evaluation Situation includes the Information situation. This, we claim, is precisely what *shag* means.

If a speaker witnesses the broken pieces of a pot, this situation is only a part of the breaking event. That is, the E- situation (the pot breaking) includes the reference situation (broken pot pieces). We propose that ‘*dug*’ and *shag* both express a relation of inclusion between the IS and the ES, but they differ in the direction of the relation:

‘ <i>dug</i> :	ES \Box IS
<i>shag</i> :	IS \Box ES

This approach accounts straightforwardly for ways in which ‘*dug*’ and *shag* differ, repeated in (45).

- (45)
- ‘*dug*’ can be used to report a state of affairs or an event;
shag can only be used to report an event.
 - With certain verbs, ‘*dug*’ indicates that speaker witnessed the entire event/state while *shag* indicates that speaker witnessed result or ending state of the event.
 - In certain cases, *shag* requires a special auxiliary.
 - When the subject of the sentence bears agentive/instrumental case, *shag* appears to have an inferential rather than direct meaning.

First, in order for the Information to be part of the Evaluation Situation, the Evaluation Situation has to be something that could have parts. States do not have distinguishable sub-parts so we would expect that *shag* could not be used to report states.

Second, verbs like ‘break’ have a hierarchical event structure in which the result is a sub-constituent of the entire event structure. Therefore the broken pieces of a vase are an Information Situation that is included in an Evaluation Situation for ‘Tashi broke the vase.’

Third, an eventuality that is true at present is by definition ongoing at present. In the well-known “imperfective paradox”, one can truthfully report “Mary is crossing the street” although all one has seen is part of the street-crossing event. The way this paradox is resolved is to treat the Reference Time as an interval that may extend past the moment of discourse, and which therefore includes the event time.

Extending this to situations, in the present tense ‘*dug*’ is used when the speaker comes to know of an eventuality via a situation that includes that eventuality. The speaker observed Mother cooking dinner, and this Information Situation included the event of Mother cooking dinner.

As we mentioned above, events like cooking dinner are non-quantized, so witnessing part of the event can count as witnessing the whole event, and we saw that ‘*dug*’ can in fact be used if the speaker witnessed part of the event but wishes to treat that as standing in for the entire event. For *shag* to be appropriate in the present tense, the sub-situation within which the speaker acquired her knowledge needs to be distinct from the situation as a whole.

This is where the auxiliary *bsdad* comes in. The auxiliary *bsdad* has the effect of changing the evaluation situation to include a bounded reference situation. This is similar to the way in which the present perfect can carve out part of an unbounded eventuality.

- (46)
- a. ??Mary lives here for two years.
 - b. Mary has lived here for two years.

bsDad adds the presupposition of a bounded sub-situation, which is included within the Evaluation situation. The extension need not necessarily involve a result. What is important is that *bsdad* “carves out” a bounded situation within which the speaker comes to know about the eventuality. Thus, with the addition of the auxiliary *bsDad*, the IS is included within the ES, and so *shag* is the appropriate evidential.

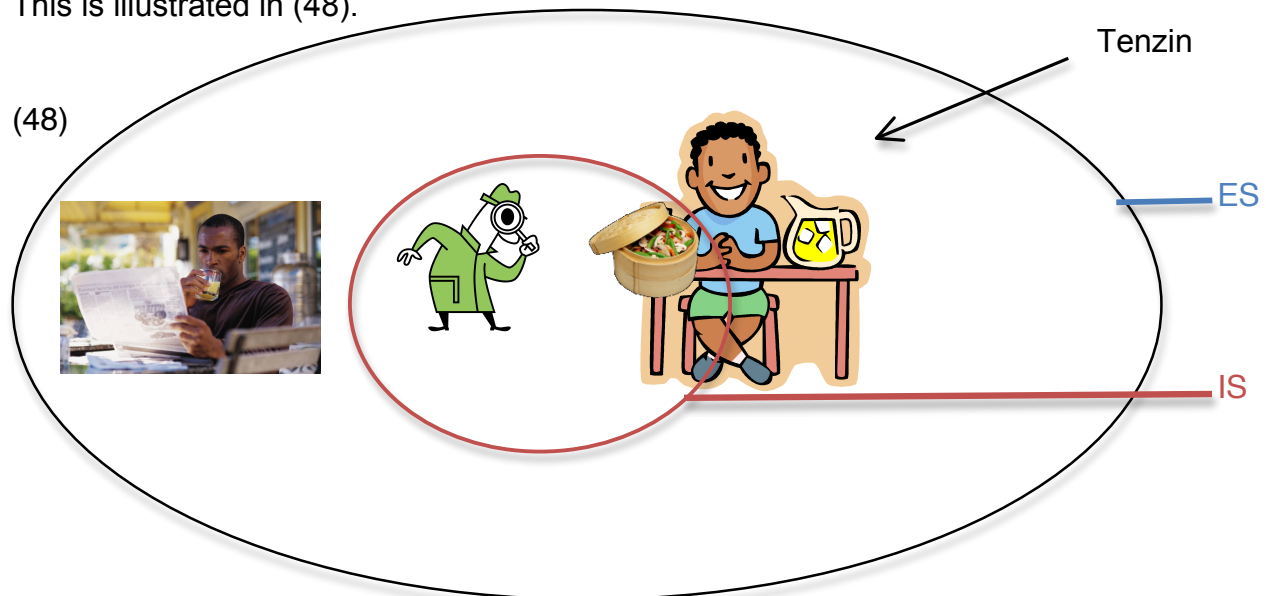
Fourth, this approach predicts that if the Evaluation Situation is one that includes something other than just the subject and predicate, the Information Situation may be

something other than witness. In other words, our theory predicts that we might find direct evidentials used in cases where the relevant inclusion relations hold but witness is not involved. In fact, this is exactly what we find when the assertion includes certain presuppositions, which is the case when the subject bears instrumental/agentive case.

- (47) bsTan dzin gyis kha lags bzas shag.
 Tenzin (agent/instrumental case) food eaten DIRECT.
 Tenzin has eaten the food.

As mentioned earlier, Agha notes that such sentences imply that the subject is being picked out from a larger set of people who might have performed the action. He further explains, “In other words, from a discourse point of view, [the sentence “Tashi sent the letter” with agent case] presupposes that somebody sent the letter, and asserts that (from among all the possible people who might have sent it) it was Tashi, in particular, who did it.”

If Agha is right, the Evaluation situation for (47) is one in which from all possible people who might have eaten the food, Tenzin ate the food. Suppose I know this because I saw the empty food bowl on Tenzin’s table. This is a situation that is part of the situation in which of everyone who might have eaten the food, Tenzin ate the food. This is illustrated in (48).



The analysis that we have outlined here has a number of desirable properties. First, it explains the differences between ‘dug and shag in a straightforward way in which previously puzzling restrictions follow naturally. Second, it captures the meaning of direct evidentials without resorting to problematic primitives such as “evidence” or “speaker’s perceptual trace,” which would illicitly smuggle rich epistemological theory into the basic semantics of the language. Finally, it correctly predicts that shag will appear to become inferential rather than direct with sentences that involve certain kinds of presuppositions. In the following section we will address some additional cases that

were problematic in previous accounts. . Having explained these four central phenomena, we now turn to the seven additional differences between ‘dug and shag. We will see that this model predicts them and explains them straightforwardly and systematically.

5. Further Predictions

5.1 Reports about the Future

It is impossible to have already witnessed an event that hasn’t yet taken place. Therefore it is surprising under any analysis that treats direct evidentials as meaning “speaker witnessed the event” that ‘dug and shag can occur at all with statements about the future. As we see in (49), both of these do occur with future statements. When ‘dug occurs in a statement about the future, it indicates the speaker’s subjective knowledge of her belief or certainty. Shag, on the other hand, seems to be more a guarantee that the statement is true, an expression of strong endorsement, like, “I assure you that...”

- (49) a. sGrol ma ‘khrom la ‘gro yas red ‘dug.
 Dolma market (locative case) go (future) NEUT DIR.
 ‘(I know that) Dolma is going to the market.’
- b. sGrol ma ‘khrom la ‘gro yas red shag.
 Dolma market (locative case) go (future) AVOWAL.
 ‘(I assure you that) Dolma is going to the market.’

Notice that both of these future sentences include the neutral evidential red. These are therefore not simplex sentences. Rather, the sentence with the neutral evidential is embedded under ‘dug or *shag*. Denwood (1999:160) writes that “the form *red*.’*dug* may be thought of as combining the assertive nature of the verb *red*, relating to an innate[sic] quality, with the “witnessed discovery” sense of the auxiliary particle ‘*dug*. Some such English expression as “I see that...” may often be used in translation.” (see also Garrett 2001:91) Thus, ‘*dug* and *shag* indicate the nature of the evidence not for the future event or result itself, but for the speaker’s current knowledge state about the event or result.

Looking first at (49)a, the Evaluation Situation is the one expressed by ‘sGrol ma ‘khrom la ‘gro yas red,’ not just the one expressed by sGrol ma ‘khrom la ‘gro yas.’ The Evaluation Situation is factive. The IS is a minimally larger part of the speaker’s epistemic state, which contains the speaker’s knowledge of the fact that Dolma is going to market. Thus, (49)a indicates that the speaker is explicitly reporting his own knowledge that Dolma will go to the market, something he is in a position to witness introspectively.

In (49)b the ES seems to be the same as in (49)a. Notice, however, that the translation includes the second person recipient of the assurance. This suggests that (49)b would only be felicitous in contexts where there is a presupposition that the hearer doesn’t think Dolma is going to the market or isn’t sure that Dolma is going to the

market. In other words, there is a kind of contrastive focus involved (“Dolma IS going to the market”) Suppose that the ES for (49)b includes the alternatives made salient by the focus. In this case, the IS is the speaker’s knowledge of just the fact being reported. As with the cases of agentive focus discussed above, the presence of presuppositions makes the relevant ES larger. Because IS is included in this enlarged ES, *shag* is felicitous here.

Lest it seem that the ES and IS we are describing are ad hoc, in these cases it is actually the presence of *shag* and *‘dug* that are triggering the presuppositions. If we are right that *‘dug* means that IS included ES and *shag* means that IS is included in ES, we would expect that they could be used to trigger presuppositions having to do with these inclusion relations rather than specifically with sensory evidence. Our proposal hence elegantly explains this subtle semantic difference, as well as the *prima facie* puzzling use of these direct evidentials to make statements about the future.

5.2 ‘dug, shag and internal experience

As we have noted, direct evidentials in Tibetan are used to express internal sensations, including one’s own state of mind or the experience that one experienced or felt, and this has led some (references) to say that *‘dug* and *shag* have ego meanings. But recall that in Tibetan culture introspection is one of the six senses, and direct evidentials mark anything that the speaker knows through witnessing via the senses. Hence, in this framework (50)a and b represent sensory knowledge, as much as would any sentence reporting knowledge gained visually.

- (50) a. Zhim po ‘dug.
Delicious ‘DUG.
It is delicious.
- b. Nga grod gog ltogs kyi ‘dug.
I hungry (present cont) ‘DUG
‘I am hungry.’

Internal sensations are not quantized, and so a situation exemplifying an internal sensation cannot have discrete sub-parts. Our model therefore predicts that *Shag* cannot be used to report internal sensations unless some modification introduces the possibility of sub-situations. This prediction is correct: *shag* can be used to report internal sensations only if it occurs with some auxiliary that makes the predicate perfect or inchoative. For example:

- (51) a. Nga rgyags pa chags yong gi ‘dug
I fat feel IMP ‘DUG
‘I am fat’ (=‘I feel fat’)
- b. Nga rgyags pa chags shag.
I fat become SHAG
‘I have become fat.’
- c. *Nga rgyags kyi shag.
I fat IMP SHAG
‘I am fat.’

- (52) a. Zhimpo 'dug.
Delicious 'DUG
'It is delicious.'
- b. Zhimpo bzos shag.
Delicious made SHAG
(I) made it delicious.
- c. *Zhimpo shag.
Delicious SHAG
'It is delicious.'

Here we see that shag is impossible in the absence of an auxiliary. (51)b would be used if the speaker knows he is fat through experiencing the result of his becoming so. Similarly, (52)b would be used if the speaker made it and then found it delicious, but not if, for example, the speaker made the food and gave it to someone else who found it delicious. In (52)b the ES is the situation in which the speaker made it so that when he tasted it, it was delicious. The IS is the internal experience of deliciousness. In other words, the use of shag requires an auxiliary that extends the ES to be one that can contain an IS.

5.3 Questions and Conditionals, Negation, Demonstratives and Supplication

We have seen above that our analysis of direct evidentials predicts that we should find cases in which the evidential is used but witnessing is not involved, if there is an inclusion relation between the IS and the ES. Conditionals and questions provide just such contexts. It should therefore turn out that in these contexts 'dug is possible, but shag not, and that 'dug should lose its implicature of witness in these contexts. These predictions are correct, providing independent confirmation of our theory.

5.3.1 Conditionals

Discussing sentences like (53), Kratzer (2007) points out that "The crucial feature of any analysis of donkey sentences within a situation semantics is that quantification is over minimal situations that satisfy conditions imposed by the antecedent of the conditional." (1990:17) She argues that quantification in such cases is "over parts of a contextually salient topic situation. The antecedents of the conditionals tell us more about what those parts are." (1990:24). In other words, ES for the conditional is a sub-part of the topic situation (IS, in our terms). For (53) the topic situation is one that Kratzer calls "Donkey Parade." The situations that whenever quantifies over are "precisely those substitutions of Donkey Parade that are minimal situations in which a donkey appeared. The claim is that all those situations are part of situations where the donkey was greeted enthusiastically." (1990:16)

- (53) Whenever a donkey appeared, it was greeted enthusiastically.

Since the ES for the antecedent of a conditional are a subset of the topic situation (our IS), conditional sentences in Tibetan should not be able to be marked with shag. Shag means that the IS is included in the ES, which contradicts the relation imposed by

the semantics of the conditional. This prediction is correct: The antecedent of a conditional can be marked with ‘dug, but shag is impossible.

- (54) a. bum pa chags ‘dug na bstan ‘dzin red.
vase PERF break DIR if Tenzin IND
‘If the vase broke (‘DUG), it was Tenzin’
- b. *bum pa chags shag na bstan ‘dzin red.
*‘If the vase broke (SHAG), it was Tenzin.’
- (55) a. Tsam pa zhim po ‘dug na mang tsam za.
Tsampa delicious DIR If more eat
‘If the tsampa is delicious (‘DUG) more will be eaten.’
- b. *Tsam pa zhim po shag na mang tsam za.
*‘If the tsampa is delicious (SHAG), more will be eaten.’

5.3.2 Questions

Kratzer draws attention to the importance of exemplification in understanding the semantics of questions. “...(A)nswers to questions are always understood as claims about the actual situations that exemplify the question extension. Via their exemplifying situations, then, question extensions determine possibly multiple topic situations that answers are understood to make claims about.” (1990:30) In other words, the denotation of a question involves a set of potential topic situations, and the answer is that subset which are actual situations that are true. Questions, then, are another construction where the topic situation contains the exemplifying situation in virtue of the semantics of the construction. Since it is not possible in a question for ES to contain IS, we should find that we can use ‘dug but not shag in Tibetan questions. This prediction is correct.

- (56) a. bum pa chags ‘dug gas?
vase break DIR Q
‘Did the vase break (‘DUG)?’
- b. *bum pa chags shag gas?
*‘Did the vase break (SHAG)?’

The question can be asked with ‘dug but cannot be asked with shag, and this is because ES cannot contain IS in the question.

5.3.3 Negation

A negative assertion reports that the evaluation situation does not exist. If it doesn’t exist, it cannot have sub-parts. In set-theoretic terms, the null set cannot contain any other sets, but other sets can contain the null set. So, the IS for a negative assertion can contain ES (=the null set), but ES cannot include IS. Thus, we predict that ‘dug should be possible on negative assertions, but shag should be impossible. Once again, this prediction is correct.

- (57) a. bum pa chags min ‘dug.
 vase break neg DIR
 ‘The vase didn’t break (‘DUG’)
 b. *bum pa chags min ‘shag.
 *‘The vase didn’t break (SHAG)
 Since ES cannot contain IS in negatives, shag is impossible.

5.3.4 Demonstrative/Presentational Sentences and Supplication

In sentences like those in (58), it is possible to use ‘dug but not shag. Such uses of ‘dug are sometimes referred to as “performative” uses.

- (58)a. bsTan dzin ‘dug ga
 Tenzin DIR terminative
 ‘That’s Tenzin!’
 b. gyag ‘dug ga.
 Yak DIR terminative.
 ‘A yak!’ (‘Look at that yak!’)

The explanation for this difference is quite straightforward: In order to be demonstrating a state of affairs, the speaker must be at some remove from it. Thus, IS necessarily contains ES and not vice-versa.

Although shag cannot be used for demonstrative/presentational sentences, it has a so-called “performative” use. These are sentences such (59), which have a connotation of supplication, meaning “May it be the case that...”

- (59) khyed rang sku gzugs bte po yin shag
 you (HON) body (HON) comfortable EGO SHAG
 ‘May you be well!’

We suggest that in such cases the IS is the current state of affairs and the ES is a larger state of affairs that also includes the addressee being well. Supplication involves expressing a wish that the current situation would become augmented by the wished-for situation. Of course, supplications aren’t evaluated, but they can be satisfied. In this case the satisfaction conditions for the supplication would be the addressee being well, which is the larger state of affairs. The supplication conditions play the same role as ES does in assertions. Thus, in this “performative” use of shag, ES includes IS. As we predict, shag is felicitous, ‘dug is not.

6. The other evidential categories

Our analysis of Tibetan direct evidentials adopts the proposal of Speas (2010) that all grammaticized evidentials encode relations between situations. She proposed that direct evidentials encode a relation of inclusion between the IS¹⁷ and ES, whereas indirect evidentials encode a relation of accessibility. These two categories are further differentiated in terms of the relation between IS and the Discourse Situation.

¹⁷ She uses the term “Reference Situation” (RS).

(60)	<i>Personal experience</i>	IS includes ES IS includes DS
	<i>Direct</i>	IS includes ES IS is accessible from DS
	<i>Indirect</i>	IS is accessible from ES IS includes DS
	<i>Hearsay</i>	IS is accessible from ES IS is accessible from DS

Her theory aimed to explain the restrictions on the categories of possible evidentials: The inventory is restricted because evidentials can encode inclusion or accessibility relations and nothing else. However, it is not clear what would restrict the direction of these relations. For example, are there languages that have a direct morpheme that means that ES includes IS? This seemed to undermine the restrictiveness of the proposal. However, in this paper we have shown that Tibetan is a language that has precisely such a morpheme.

It is beyond the scope of this paper to show conclusively that a reversal of the direction of inclusion relations can also account for the different ego and indirect morphemes in Tibetan. However, in this section we will briefly outline some reasons for believing such an approach to be quite promising.

There are distinct indirect evidentials in Tibetan depending on whether the speaker inferred from general information or from specific perceptual signs.

- (61) a. *A ma lags thab tsang nang la yod kyi red*
 mother kitchen in(LOC) is INDIRECT
 ‘Mother is in the kitchen (speaker knows through general inference)’
- b. *A ma lags thab tsang nang la yod sa red*
 mother kitchen in(LOC) is INDIRECT
 ‘Mother is in the kitchen (speaker infers from concrete evidence)’

(61)a could be used if the speaker knows that Mothers cook at this time everyday, knows that Mother rarely leaves the kitchen, etc. (61)b would be used if the speaker saw that Mother’s apron was not on the peg, heard dishes being rattled, smelled the aroma of cooking, etc.

According to Speas, the relevant inclusion relation for indirect evidentials is that between the IS and the Discourse Situation. For indirect evidentials the IS includes the Discourse Situation. Can we capture the difference between the two indirect evidentials in (61) in terms of whether the common ground includes or is included in the IS? Indeed we can.

Let us begin with general inference. General information is by definition information that is widely known. Despite the fact that a felicitous assertion requires that the asserted information not be known to the addressee, it is perfectly felicitous to make an assertion using a general inference evidential. The contexts in which such an assertion would be appropriate would be similar to the contexts in which an English speaker would say “Everyone knows that *p*.” If the addressee indeed does know, then the assertion would be informative, so appropriate contexts are those in which the addressee does not know that *p* and the speaker wishes to contribute both *p* and *everyone knows p* to the common ground. In other words, the speaker is ensuring that the common ground (DS) for *p* includes *everyone knows p*. Thus, we may say that an evidential conveying inference from general information means that the Discourse Situation includes the Information Situation.

Inference from specific evidence is based on both information in the common ground and any additional information that the speaker has. Note that it is not felicitous to make an assertion based on inference that ignores information in the common ground.¹⁸ For example, A could felicitously utter (61)b (with *yod sa red*) in context 1 below, but not in context 2. Some sort of qualifier such as *gcig byas na* (maybe) must be used.

(62) CONTEXT 1: A knows that mother wears her apron when she cooks, and hangs it on a hook outside the kitchen when she is not cooking. A and B approach the kitchen and see that mother’s apron is not on the hook.

CONTEXT 2: A knows that mother wears her apron when she cooks, and hangs it on a hook outside the kitchen when she is not cooking. A and B approach the kitchen and see that mother’s apron is not on the hook and also see that mother’s coat is gone and the babysitter’s coat is hanging in the closet.

Hence, specific perceived evidence supporting an inference is made up of the DS and also any additional information that the speaker has. In other words, IS includes DS.

Turning now to the ego evidentials, the two forms *yin* and *yod* are generally classified as equative and existential, respectively. Both are used to report information known to the speaker through unique personal experience, and hence they are generally restricted to sentences with at least one first person argument.

(63) a. *nga la kang pa yod*
 I house have EGO
 ‘I have a house’

¹⁸ In English it’s possible to explicitly ignore information in the common ground. For example, in Context 2 a speaker could say something like “Well, I infer that Mother is cooking, despite appearances”. Evidentials differ from verbs in that an assertion of *p*+evidential is always an assertion of *p*.

- b. *nga dge.rgan yin*
 I teacher EGO
 'I am a teacher'

A few peculiar properties of *yin* and *yod* suggest that a more abstract approach might be fruitful. First of all, in the future and past, *yin* must be used regardless of whether the predication is equative or existential. This fact is sometimes attributed to some feature of volitionality associated with *yin*, but as Garrett (2001) points out, sentences like (63)b don't involve volitionality. Second, the first-person requirement is weaker for present tense sentences than it is for past or future. Third, it's not clear that the existential/equative distinction is correct. The sentences in (64) do not seem to differ in regard to whether they're existential or equative, yet (64)a requires *yin* and (64)b requires *yod*.

- (64) a. *nga'i 'di gsar.pa yin*
 my this new [ego cop]
 'These of mine are new.'
- b. *nga'i bu.mo snying.rje.po yod*
 my girl beautiful [ego ELPA]
 'My daughter is beautiful.' (Garrett 2001:208)

Consider what the Information situations might be for these sentences. One would come to know that an item is new through the experience of having bought it, but coming to know that one's daughter is beautiful involves making an internal judgment. So the IS for (64)a would be something like the situation in which I bought the shoes and they were new plus the short time span from then to now. Since ES is the situation in which the shoes are new, this IS includes ES. For (64)b ES involves a property of my daughter that holds over time. IS would be some instance or instances of this property holding. Thus, ES includes IS.

Speas (2010) claims ego evidentials encode the same kind of inclusion relation between IS and ES and are differentiated from direct evidentials by the relation that holds between the IS and the Discourse Situation. In short, the IS for an ego evidential is simply the speaker herself, so there is an inclusion relation between IS and DS¹⁹. It is not clear whether the distinction between *yin* and *yod* should be stated in terms of ES and IS as we have above, or in terms of IS and DS. We hope, however, to have briefly demonstrated that an approach in terms of inclusion relations is promising.

¹⁹ Speas proposes that IS includes DS. It may be more accurate to say that the Discourse Situation includes the IS, although this might rule out knowledge based on experiences of the speaker that are temporally or locationally removed from the current discourse.

7. Conclusion

We have argued that direct evidentials in Tibetan express a relation of inclusion between the situation being reported by the speaker (ES) and the situation in which the speaker's knowledge was acquired (IS). We have further argued that Tibetan has two morphemes for this inclusion relation, which differ only in the direction of inclusion. 'Dug is used when IS includes ES, while shag is used when ES includes IS. We have suggested that such an approach could fruitfully be developed for the indirect and ego evidentials as well.

This result not only systematizes what heretofore have appeared to be a haphazard collection of puzzling facts about Tibetan evidentials, but also provides compelling evidence for a particular approach to the semantics of evidentials in general. Evidentials add information to a discourse. They do so in a way fundamentally different from simple assertion, but also in a way different from other non-assertoric devices, such as parentheticals. The kind of information that they add might appear to be information directly about the source or kind of evidence for the utterance at issue, and indeed virtually every other treatment of the semantics of evidentials presumes that this is the case. But in fact they encode a different kind of information, information about the relation of the situation being reported to the situation in which information was acquired. Only this more abstract understanding of their meaning allows us to make sense of the range of phenomena we have noted. The information they are generally taken to convey is merely a consequence of this more abstract semantic function.

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