

# The epistemization of person markers in reported speech

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Egophoricity is a cross-linguistically rare grammatical phenomenon. While numerous descriptive studies have substantially improved our synchronic understanding of the category in recent years, we are still largely ignorant of the diachronic origins of egophoricity systems. In this article, we address this gap and discuss a diachronic process that transforms person agreement markers into egophoricity markers. Based on evidence from three Tibeto-Burman languages, we reconstruct the diachronic transformation and argue that the process starts out in reported speech clauses once the direct construal of the predicate is generalized. This generalization allows for the functional reanalysis of first and third person markers as egophoric and allophoric markers, while second person markers become functionally obsolete. Once person markers have undergone an epistemization in reported speech clauses, the innovative epistemic system is extended to simple declarative and interrogative clauses, where it gradually replaces the conservative person agreement system.

## 1. Introduction<sup>1</sup>

Various Tibeto-Burman languages of the Himalayas display an epistemic<sup>2</sup> grammatical category that is commonly known as “egophoricity” or “conjunct/disjunct”. We here define egophoricity as a grammatical category that marks access

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1. We would like to thank Dominique Knuchel and two anonymous reviewers for helpful comments on earlier versions of this article. All remaining mistakes are of course our own.
  2. We use the label “epistemic” as an umbrella term for grammatical categories that serve the primary function of relating the knowledge that is contained in a given proposition to the knowledge of the speaker or other speech act participants. Accordingly, the term does not only comprise egophoricity marking but also other categories such as evidentiality (see Aikhenvald 2004) and mirativity (see DeLancey 2012). However, as this article is exclusively concerned with egophoricity marking, the terms “egophoricity marking” and “epistemic marking” will be used interchangeably in the following.

to knowledge as either privileged or-non-privileged (see §2.2 below for a more elaborate definition). In the course of the past few decades, a wealth of descriptive studies has considerably enhanced our synchronic understanding of this phenomenon. The diachronic origins of egophoricity systems have not received much attention, however. Widmer (2015) addressed this gap and adduces evidence for a functional transformation of syntactic agreement into epistemic marking. In the course of this process, the verbal category “person” is transformed into the verbal category “egophoricity” according to the scheme given in Table 1 below.

**Table 1.** Proposed reanalysis of person markers

person		egophoricity
first person	⇒	egophoric
second person	⇒	–
third person	⇒	allophoric

While Widmer (2015) provides substantial evidence for the aforementioned process, he does not go into the question of what causes the functional transformation of agreement markers into epistemic markers. In this article, we address this remaining gap and argue that the epistemization of person markers is the direct consequence of an innovation in the domain of reported speech. The innovation in question not only allows for the reanalysis of person markers as epistemic markers, but also gives rise to a deictically mixed reported speech construction that is widely attested in Tibeto-Burman languages of the Himalayas. We base our hypothesis on data from three distantly related Tibeto-Burman languages that bear witness to different stages of the process.

The structure of this article is as follows: In §2, we clarify some theoretical issues and provide a brief definition of egophoricity marking. In §3, we describe the egophoricity system of Bunan and demonstrate that the egophoricity opposition evolved from a former person agreement system. In §4, we put the Bunan evidence into perspective by comparing it with the Tibeto-Burman languages Dolakha Newar and Sunwar. In doing so, we show that the three languages bear witness to the functional transformation of person markers to egophoricity markers and demonstrate that the reanalysis is linked to an innovation in the domain of reported speech. In §5, we argue that the functional transformation of person agreement into epistemic marking becomes possible if the direct construal of the predicate in reported speech clauses is generalized. In §6, we address a number of problems and open questions before summarizing the major findings of the study in §7.

## 2. Preliminaries

### 2.1 Terminology

The phenomenon that we refer to as “egophoricity” in this article was first described under the name “conjunct/disjunct” by Hale & Watters (1973) and Hale (1980) for some Tibeto-Burman languages of Nepal. A number of scholars subsequently adopted this term (e.g. DeLancey 1990; Curnow 1997; Hargreaves 2005; Watters 2006; *inter alia*), while others refrained from using it and developed their own terminology, e.g. “egophoric” vs. “heterophoric” (Tournadre 1991), “self-person” vs. “other-person” (Sun 1993), “volitionality” (Haller 2000), “old knowledge” vs. “new knowledge” (Huber 2005), “assertor’s involvement marking” (Creissels 2008).

In the course of the past ten years, the term “egophoricity”, which is derived from Tournadre’s (1991) “egophoric”, has gained ever growing acceptance and is now the most widely used term. Interestingly, the term “heterophoric”, which was introduced together with the term “egophoric”, never gained wide currency. This is most probably due to the fact that Tournadre himself stopped using the term early on when he abandoned his dichotomic analysis of the Lhasa Tibetan epistemic system and began to oppose the egophoric category to evidential categories such as “sensory”, “inferential”, and “factual” (cf. Tournadre 2008:301, fn. 48). However, while such an approach is feasible for Tibetic languages, it cannot be easily implemented for languages that have binary egophoricity systems. As a consequence, Post (2013) introduced the term “alterphoric” to refer to the functional counterpart of egophoric markers in Galo, a Tibeto-Burman language of Northeast India that also displays a binary egophoricity system. In this paper, we essentially adopt Post’s approach, but would like to propose the term “allophoric” as an alternative to the term “alterphoric”. The term “allophoric” has the advantage of being a genuine Greek coinage (Greek *ἄλλος* ‘other’ + Greek *φέρω* ‘carry’) as opposed to the etymologically hybrid form “alterphoric” (Latin *alter* ‘other’ + *φέρω* ‘carry’) and thus represents a compromise between Post’s term “alterphoric” and Tournadre’s term “heterophoric”.<sup>3</sup>

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3. Note that the conceptual pair “egophoric” vs. “allophoric” has already been used by Dahl (2000) in combination with the term “reference”. Dahl defines “egophoric reference” as reference to speech-act participants, generic reference, and logophoric reference, while defining “allophoric reference” as reference to non-generic 3rd person referents.

## 2.2 Defining egophoricity

In this article, we essentially take up an approach by Hargreaves (1991, 2005), who defines egophoricity as a binary grammatical category that specifies one's access to mental states as either privileged or non-privileged. Expanding Hargreaves' original conception, we define egophoricity as a grammatical category that indicates whether one has privileged or non-privileged access to the knowledge on which a proposition is based. We understand the notion of privileged access as describing a privileged epistemic relationship that holds between a speech-act participant and the knowledge that is conveyed in a proposition. Egophoric markers thus express that one has a privileged epistemic perspective on an event and possesses epistemic authority to assert the relevant facts, whereas allophoric markers indicate that this is not the case.

Egophoricity markers may relate to different speech act participants depending on whether a proposition is declarative or interrogative and whether it is a primary or a reported utterance. Several scholars have come up with epistemic roles to account for these shifts in perspective, e.g. "epistemic source" (Hargreaves 1991, 2005), "locutor" (Curnow 1997; Aikhenvald 2004), "informant" (Bickel & Nichols 2007), or "assertor" (Creissels 2008). We adopt the term "assertor" for the following discussion. We define the assertor as the speech-act participant from whose perspective a situation is portrayed and to whose viewpoint epistemic markers relate.

It has long been noted that egophoricity systems bear witness to a number of shifts in perspective. In simple declarative contexts, egophoricity markers prototypically reflect the viewpoint of the primary speaker, while in simple interrogative contexts, they most often relate to the perspective of the primary addressee.<sup>4</sup> In reported declarative contexts, egophoricity markers are commonly calculated from the perspective of the reported speaker and in reported interrogative contexts, they generally relate to the epistemic stance of the reported addressee. The following table summarizes these canonical shifts.

**Table 2.** Typical perspective shifts in egophoricity systems

	Primary speech act	Reported speech act
declarative speech act	primary speaker	reported speaker
interrogative speech act	primary addressee	reported addressee

4. Following Evans (2012: 69), we refer to the speech act participants in the current speech event as the "primary speaker" and the "primary addressee", and to the speech act participants in the reported speech event as the "reported speaker" and the "reported addressee".

While it is true that the abovementioned perspective shifts are characteristic of egophoricity system in general, one has to be aware of the fact that they are not based on strict rules. In other words, the assertor cannot simply be defined based on whether an utterance is declarative / interrogative or primary / reported. Evidence that the parameters of illocutionary force, reported speech, and the assertor role are ultimately independent of each other comes from pragmatically marked speech acts such as rhetorical questions. Rhetorical questions differ from true questions in the sense that they do not represent requests for information but rather assertions of facts (Heritage 2012). As a consequence, egophoric markers often relate to the perspective of the speaker rather than the viewpoint of addressee in such contexts (cf. Widmer forthcoming). However, we do not want to go further into the intricacies of perspectival shifts here, as this would go beyond the scope of this article. In the following, we thus confine ourselves to a discussion of the perspective shifts outlined in Table 4.

Egophoricity marking is a multifaceted grammatical category with a considerable degree of cross-linguistic variation. This is due to the fact that there is no universal definition of privileged access. Rather, every language that displays egophoricity marking draws the boundary between the domain of egophoric marking and the domain of allophoric marking in a different manner. As Bickel (2008) has pointed out, languages show a particularly great deal of variation with regard to the “scope” that egophoric markers can have.<sup>5</sup> According to Bickel, cross-linguistic evidence suggests that it is helpful to distinguish two types of scope constructions: (i) constructions in which egophoric markers have scope over participant roles (“epistemic argument marking”) and (ii) constructions in which egophoric markers have scope over propositions (“epistemic proposition marking”). In constructions of type (i), egophoric marking expresses that the assertor has privileged access to knowledge by assuming a certain participant role in a given event. In constructions of type (ii), an egophoric marker expresses that the assertor has privileged access to knowledge because she / he considers the relevant knowledge as a part of her / his “territory of information” (Kamio 1997), that is to say, her / his sphere of intimate and personal knowledge.

In the following, we briefly illustrate differences in the scope of egophoric marking with data from Akhvakh (Nakh-Daghestanian) and Shigatse Tibetan (Tibeto-Burman). Akhvakh possesses a perfective egophoric ending *-ada*, which

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5. Note that Bickel (2008) uses the term “scope” in a different sense than it usually has in the literature. In formal semantics and other areas of theoretical linguistics, the concept of scope is commonly used to denote the modification relationship that a semantic operator bears to specific constituents within an utterance (Cann 1993: 8–9). Bickel (2008) uses the term “scope” to describe the range of different grammatical contexts in which an egophoric marker can be used.

has scope over the participant role of an agent (cf. Creissels 2008). In other words, the marker *-ada* can only be used in contexts in which the assertor maps onto the participant role of an agent.

- (1) *de-de kaʁa q̄war-ada*  
 1SG-ERG paper write-PFV.EGO  
 ‘I wrote a letter.’ (Creissels 2008: 1)

Shigatse Tibetan possesses an imperfective form *-kī=jæ* (Haller & Haller 2007). Like the Akhvakh egophoric perfective ending *-ada*, *-kī=jæ* can have scope over agent arguments, as in (2) below.

- (2) *ŋa jikē tʂʰi-kī=jæ*  
 1SG letter write.IPFV-NMLZ=IPFV.EGO  
 ‘I am writing a letter.’ (Haller & Haller 2007: 88)

In addition, the Shigatse imperfective form *-kī=jæ* also has scope over propositions if the speaker considers the relevant knowledge to be part of her / his sphere of personal and intimate knowledge. This is for example the case in (3), where the speaker describes her/his child’s allergic reaction to oranges.

- (3) *ōlæ tʂʰālūma siɛ-nā, sʉkpō-la purū tʰæ-kī=jæ*  
 child.ERG orange eat.PFV-COND body-DAT rash come.out-NMLZ=IPFV.EGO  
 ‘If (my) child eats oranges, it breaks out in rash.’ (Haller & Haller 2007: 131)

Since the Shigatse form *-kī=jæ* can have scope over propositions, the form can be used in a much wider range of contexts than the Akhvakh form *-ada*, which is exclusively tied to the participant role “agent”. We return to the issue of scope in §3.2, where we use the concept to describe the synchronic behavior of egophoric markers, and in §6.1, where we use the concept to model the diachronic evolution of egophoric markers.

### 2.3 Reported speech and deixis

Quoting other people is a common strategy in human communication. Whenever we have to rely on the testimony of other people in giving an account of an event, we are likely to recount the relevant event in the form of reported speech. Languages often possess more than just one grammatical strategy to express reported speech. In Western linguistics, there is a longstanding tradition of distinguishing between two prototypes of reported speech constructions: (1) direct speech, which reproduces the reported speaker’s words and renders the reported utterance from the deictic viewpoint of the reported speaker, and (2) indirect speech, which renders

the reported utterance from the deictic viewpoint of the primary speaker (Coulmas 1986:2). Two canonical examples are given in the following.

- (4) Direct speech (English)  
*She said 'I eat meat.'*
- (5) Indirect speech (English)  
*She said (that) she eats meat.*

In a recent article, Evans (2012) reassesses the utility of the concepts of direct and indirect speech for descriptive and typological linguistics and suggests that they should not be seen as universal concepts that are present in every language but merely as canonical prototypes from which languages may deviate in various ways.<sup>6</sup> Most importantly, Evans points out that it is futile to apply the labels “direct” and “indirect” at the level of entire reported speech constructions, as the individual constituents of reported constructions may be calculated from different perspectives, thus giving rise to reported speech constructions with mixed deixis. As a consequence, it is much more sensible to apply these labels at the level of individual deictically sensitive expressions that occur in a reported speech clause.

From a Eurocentric perspective, deictically mixed reported speech constructions may seem peculiar. The grammar of English, for example, does not allow for the mingling of different perspectives in a reported speech clause, as the following (ungrammatical) examples illustrate. In (6), the subject pronoun *she* is calculated from the perspective of the primary speaker, while the predicate *eat* renders the perspective of the reported speaker. In (7), the subject pronoun *I* represents the perspective of the reported speaker, whereas the predicate *eats* relates to the perspective of the primary speaker.

- (6) Deictically mixed speech: type I (English – ungrammatical)  
*\*She said (that) she eat meat.*
- (7) Deictically mixed speech: type II (English – ungrammatical)  
*\*She said (that) I eats meat.*

However, deictically mixed reported speech constructions – in particular type I exemplified in (6) – are common in some Tibeto-Burman languages of the Himalayas, as we demonstrate in this paper. We now leave the issue of reported

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6. Evans (2012) also identifies a third canonical type which he refers to as biperspectival speech. In canonical biperspectival speech, every deictically sensitive expression encodes both the original and the current speaker's perspectives. This type of reported speech will not be discussed in this article, as it is not important for our argumentation.

speech and turn to the description of a number of languages that are crucial for our argumentation. We get back to reported speech in § 5, where we demonstrate how such constructions may cause the reanalysis of person agreement markers as epistemic markers.

### 3. Person marking and epistemic marking in Bunan

#### 3.1 An overview of the Bunan verbal system

Bunan is a Tibeto-Burman language that is spoken in North India (Himachal Pradesh) by between 3,500 and 4,000 speakers and is commonly assigned to the West Himalayish subgroup (Widmer forthcoming). The following table gives an overview of the structure of a Bunan verb. Note that prefixes and non-productive derivational suffixes are not shown in the table.

Table 3. The structure of a Bunan verb

Root	Slot 1	Slot 2	Slot 3	Slot 4
	Derivation	Transitivity	Inflection	Inflection
	– detransitive	– intransitive – middle – transitive	– egophoricity (secondary)	– tense – mood – evidentiality – egophoricity (primary) – number – person

Bunan possesses a moderately complex epistemic verbal system. In the present tense, verbal morphology encodes a straightforward egophoricity opposition and indicates whether or not the assertor possesses privileged access to the knowledge that is conveyed in a proposition. In addition, the present tense endings mark the number of the subject as either “singular” or “plural”. Consider the following paradigm.

Table 4. Egophoric and allophoric marking in Bunan (verb *lik-* ‘to make’)

	SG	PL
EGO	<i>lik-tɕ-ek</i>	<i>lik-tɕ-<sup>h</sup>ek</i>
ALLO	<i>lik-tɕ-are</i>	<i>lik-tɕ-<sup>h</sup>ak</i>

The situation is more complex in the past tense domain, as the past tense endings simultaneously encode the grammatical categories “egophoricity” and “evidentiality” in an instance of cumulative exponence. Accordingly, past tense endings not only specify whether or not the assertor possesses privileged access to the knowledge conveyed in a proposition, but also indicate whether the assertor has gained the relevant knowledge through direct perception or by means of an inference. As epistemic marking is considerably more complex in the past tense domain and also evolved in a different way, we confine ourselves to discussing egophoricity marking in the present tense domain. A synchronic description of epistemic marking in the past tense domain can be found in Widmer (forthcoming).

Finally, note that the epistemic distinctions are also found in the copula system. The equative copula *jen-* is inflected for egophoricity, while the attributive copula *de-* possesses the inherent values “direct evidence” and “allophoric access”. The existential copula *ni-* and the possessive copula *ta-* are inflected for person and number, but also display characteristics of an emerging egophoricity distinction (see Widmer forthcoming for discussion).

### 3.2 The egophoricity system in the present tense

In the Bunan present tense domain, privileged access is defined as the assertor’s direct access to knowledge that she / he gained by assuming a certain participant role in a given event. In the following, we distinguish four types of participant roles to describe the present tense egophoricity system: (i) agent, (ii) endoceptive experiencer, (iii) exoceptive experiencer, and (iv) theme.<sup>7</sup> The agent is defined as the most agent-like argument of a prototypically controllable event (e.g. running, eating, giving). The endoceptive experiencer is the experiencer argument of an event that involves the perception of an internal stimulus or mental state (e.g. being hungry, being afraid, thinking), while the exoceptive experiencer is the experiencer argument of an event that involves the perception of an external stimulus (e.g. seeing, hearing, smelling). The theme, finally, is the most agent-like argument of a prototypically non-controllable event, e.g. non-controllable motion (e.g. falling, stumbling, slipping) or events that involve non-controllable physical or mental processes (e.g. dying, forgetting, losing).

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7. The terms “endoceptive” and “exoceptive” have been adopted from Daudey (2014). Daudey uses an approach similar to ours to describe the egophoricity system of the Tibeto-Burman language Wadu Pumi. However, she does not analyze the egophoricity system in terms of participant roles, but rather resorts to a number of different verb types, viz. “controllable verbs”, “non-controllable verbs”, “endoceptive verbs”, and “exoceptive verbs”.

In Bunan, egophoric present tense endings have scope over agents and endoceptive experiencers. In other words, egophoric endings occur in contexts in which the assertor assumes the role of an agent or an endoceptive experiencer, while allophoric endings occur in all other contexts. This is illustrated by the following examples.

- (8) Assertor = agent  
*gi len lik-tɕ-ek*  
 1SG work do-TR-PRS.EGO.SG  
 'I am working.' (TD Dict)
- (9) Assertor = endoceptive experiencer  
*gi ts<sup>h</sup>er-k-ek*  
 1SG be.sad-INTR-PRS.EGO.SG  
 'I am sad.' (TD Dict)
- (10) Assertor = exoceptive experiencer  
*gi=tok karma tant-k-are*  
 1SG=DAT star see-INTR-PRS.ALLO.SG  
 'I can see the stars.' (TD 230.9 [elicited])
- (11) Assertor = theme  
*gi dat-k-are*  
 1SG fall-INTR-PRS.ALLO.SG  
 'I am falling!' (TG 13.36 [elicited])

It is important to note that predicates that denote controllable or endoceptive events may at times receive allophoric marking despite the fact that their subject is identical with the assertor. An example of such a clause is given below.

- (12) *gi ek bar ra-k-are*  
 1SG one time come-INTR-PRS.ALLO.SG  
 'I appear once (in this video).' (SC unrec 1)

However, the first person singular pronoun *gi* and the allophoric present tense ending *-are* co-occur in consequence of a highly particular pragmatic situation. The speaker who uttered the sentence given in (12) referred to his appearance in a video. In this context, the speaker assumed an outside perspective with regard to his own acting, as he did no longer possess a direct cognitive access to his actions in the video. Accordingly, he used the allophoric ending *-are*, despite the fact that the syntactic structure of the clause would potentially license the occurrence of an egophoric marker. This example illustrates that egophoricity marking is essentially an epistemic rather than a syntactic category. The distribution of egophoric and allophoric forms can be largely predicted based on the semantics of the verb and

the person value of the “subject pronoun”, but eventually it is the pragmatic context that determines whether the use of an egophoric form is appropriate or not.

It is important to note that the egophoric marker *-ek* cannot have scope over propositions. In other words, the ending cannot be used to express that the knowledge that is conveyed in a proposition belongs to the assertor’s sphere of personal and intimate knowledge. This is illustrated by (13) below. In this sentence, the assertor reports that her / his child is severely sick. Knowledge about one’s own family is prototypically personal and exclusive (Kamio 1997). It is thus not surprising that there are languages in which propositions about family affairs commonly fall into the scope of egophoric markers, e.g. Shigatse Tibetan (cf. (3) above). In Bunan, however, only allophoric marking is possible in such contexts.

- (13) *tʰan=cek gi=ki bete hocmej dzuk lik-tɕ-are / \*-ek*  
 today=about 1SG=GEN child much pain do-TR-PRS.ALLO.SG / \*-PRS.EGO.SG  
 ‘These days, my child is very sick.’ (TD 102.8 [elicited])

Since egophoric present tense markers exclusively have scope over agents and endoceptive experiencers, verbs denoting prototypically controllable events and endoceptive events always receive allophoric endings if their most agent-like argument is not identical with the assertor. Accordingly, declarative statements about second and third persons can only receive allophoric marking, as the following examples illustrate.

- (14) *ini dzaydzay lik-tɕ-are*  
 2[SG].HON insincere.refusal do-TR-PRS.EGO.SG  
 ‘You are refusing the tea insincerely!’ (Conversation 36.12)
- (15) *dordze=dzi dzaypo=tok dzamen lik-tɕ-are*  
 Dorje=ERG.SG Zangpo=DAT food do-TR-PRS.ALLO.SG  
 ‘Dorje is cooking food for Zangpo.’ (NN 39.4 [elicited])

In interrogative contexts, egophoric endings display a different distribution, as the assertor role is assumed by the addressee rather than the speaker in such contexts. Accordingly, egophoric endings can only occur in contexts in which the addressee is asked about information to which he is assumed to have direct access. If the question refers to the speaker or a non-speech-act participant, only allophoric marking is possible. Consider the following examples.

- (16) *gi noj dza-k-are=la*  
 1SG much eat-INTR-PRS.ALLO.SG=Q  
 ‘Do I eat a lot?’ (TC unrec 1)

- (17) *han=dzi k<sup>h</sup>a lik-tç-ek*  
 2=ERG.SG what do-TR-PRS.EGO.SG  
 ‘What are you doing?’ (Conversation 87.352)
- (18) *awa k<sup>h</sup>a lik-tç-are*  
 father what do-TR-PRS.ALLO.SG  
 ‘What is father doing?’ (Conversation 53.3)

The distribution of egophoric forms in reported statements can be explained as a consequence of the fact that egophoric markers reflect the perspective of the reported speaker rather than the primary speaker. This is illustrated by the following examples.<sup>8</sup>

- (19) *tal=dzi riŋ-k-are tal gjokspa*  
 3=ERG.SG say-INTR-PRS.ALLO.SG 3[SG] quick  
*kjuma ra-k-ek*  
 home come-INTR-PRS.EGO.SG  
 ‘She<sub>i</sub> said<sup>9</sup> that she<sub>i</sub> will come home soon.’ (TD 62.2 [elicited])
- (20) *tal=dzi riŋ-k-are tal gjokspa*  
 3=ERG.SG say-INTR-PRS.ALLO.SG 3[SG] quick  
*kjuma ra-k-are*  
 home come-INTR-PRS.ALLO.SG  
 ‘She<sub>i</sub> said that she<sub>j</sub> will come home soon.’ (TD 62.3 [elicited])
- (21) *tal=dzi riŋ-k-are gi gjokspa kjuma ra-k-are*  
 3=ERG.SG say-INTR-PRS.ALLO.SG 1SG quick home come-INTR-PRS.ALLO.SG  
 ‘She said that I will come home soon.’ (TD 62.1 [elicited])
- (22) *tal=dzi riŋ-k-are tal bup-dza*  
 3=ERG.SG say-INTR-PRS.ALLO.SG 3[SG] stumble-PST.DIR.ALLO.SG  
 ‘She<sub>i</sub> said that she<sub>i/j</sub> stumbled.’ (TD 107.14 [elicited])

8. Examples (19) through (22) display a syntactic structure that is artificial to some extent, as those sentences were elicited rather than recorded from natural discourse. In reported speech constructions that occur in natural discourse, pronouns are commonly dropped unless they are focal constituents. In addition, speech verbs usually follow the speech act complement. A more natural version of example (19) would thus be *gjokspa kjuma ra-k-ek riŋ-k-are* ‘quick home come-INTR-PRS.EGO.SG say-INTR-PRS.ALLO.SG’ ‘(She) said (that she) will come home soon.’

9. In Bunan, verbs that introduce reported speech are not inflected for past tense if they refer to a speech act in the past. That is because reported speech acts from the past are conceptualized as possessing present validity, as they still reflect the opinion of the reported speaker.

In the example sentences given above, the predicate of the main clause always receives allophoric marking, as the primary speaker does not possess privileged access to the utterance made by the reported speaker. In the complement clause, egophoric marking is only possible if the subject of the complement clause is identical with the reported speaker and if the predicate denotes a controllable or endoceptive event. If this is not the case, the predicate of the complement clause receives allophoric marking.

The distribution of egophoric and allophoric forms in reported interrogative speech acts can be accounted for on the basis of the assertor. Egophoric forms occur if the reported addressee is asked about information to which he is assumed to have privileged access, whereas allophoric forms occur if he is asked a question about information to which he is *not* assumed to have privileged access. Consider the following examples.

- (23) *sonam=dzi rintçen=tok řu-tç-are tal*  
 Sonam=ERG.SG Rinchen=DAT ask-TR-PRS.ALLO.SG 3[SG]  
*ika ra-k-ek*  
 when come-INTR-PRS.EGO.SG  
 ‘Sonam asked Rinchen<sub>i</sub> when he<sub>i</sub> would come.’ (TD 327.2 [elicited])

- (24) *sonam=dzi rintçen=tok řu-tç-are tal*  
 Sonam=ERG.SG Rinchen=DAT ask-TR-PRS.ALLO.SG 3[SG]  
*ika ra-k-are*  
 when come-INTR-PRS.ALLO.SG  
 ‘Sonam asked Rinchen<sub>i</sub> when she<sub>j</sub> / he<sub>j</sub> would come.’ (TD 327.4 [elicited])

### 3.3 The second person forms

The example sentences that we have considered so far seem to suggest that Bunan encodes a straightforward egophoricity opposition in the present tense. However, the situation is in fact more complicated, as Bunan possesses two additional present tense endings *-ana* and *-<sup>h</sup>akni*, which do not fit into the egophoricity paradigm. These endings are interesting from a sociolinguistic perspective, as their occurrence is subject to pronounced age-dependent variation. The two morphemes are only found in the genealect<sup>10</sup> of old speakers that are above the age of sixty. Members of the younger speaker generation do not actively use these forms and some younger speakers are not at all familiar with these morphemes. In Widmer’s

10. We use the term “genealect” (from Greek γενεά ‘generation’ + Greek λέγω ‘speak’) to refer to the variety of a language as it is spoken by a certain speaker generation.

(forthcoming) corpus of natural speech, the endings *-ana* and *-<sup>h</sup>akni* are exclusively attested in combination with second person singular and plural pronouns, respectively. They occur with second person pronouns regardless of whether the relevant predicate denotes a controllable, endoceptive, exoceptive, or non-controllable event, which suggests that they have to be analyzed as second person subject agreement markers. The use of these endings is illustrated by the following examples.

- (25) *k<sup>h</sup>a lik-tɕ-ana*  
 what make-TR-PRS.2SG  
 ‘What are you doing?’ (Conversation 49.2)
- (26) *han=ts<sup>h</sup>i nira k<sup>h</sup>a lik-tɕ-<sup>h</sup>akni han=çi guj dzot-k-<sup>h</sup>akni*  
 2=ERG.PL daytime what make-TR-PRS.2PL 2=PL where sit-INTR-PRS.2PL  
 ‘What are you guys doing all day? Where are you staying?’ (Conversation 69.6)

The endings *-ana* and *-<sup>h</sup>akni* are exclusively attested in interrogative sentences or declarative statements that refer to an impending danger. It is not possible to use the morphemes in pragmatically unmarked declarative statements.

- (27) *han bret-k-ana ne*  
 2[SG] slip-INTR-PRS.2SG SUG  
 ‘You will slip (and fall from the roof)!’ (TD 329.2 [elicited])
- (28) *ini dzandzan lik-tɕ-are / \*lik-tɕ-ana*  
 2[SG].HON insincere.refusal do-TR-PRS.ALLO.SG / \*do-TR-PRS.2SG  
 ‘You are refusing the tea insincerely!’ (TD 325.7 [elicited])

It is important to note that there appears to be no semantic difference between questions that are based on the agreement markers *-ana* / *-<sup>h</sup>akni* and questions that are based on the epistemic markers *-ek* / *-<sup>h</sup>ek* and *-are* / *-<sup>h</sup>ak*. According to the intuition of old speakers, the questions in (17) and (25) have exactly the same meaning. The two propositions primarily differ in terms of their sociolinguistic markedness. The agreement markers *-ana* / *-<sup>h</sup>akni* are sociolinguistically marked, as they represent a characteristic feature of the genelect of old speakers and are not attested in the speech of young speakers. The epistemic markers *-ek* / *-<sup>h</sup>ek* and *-are* / *-<sup>h</sup>ak* are sociolinguistically unmarked, as they are attested in both the genelect of the oldest speaker generation and the genelects of the younger speaker generations. The limited distribution of the second person agreement markers strongly suggests that these endings are an archaic grammatical feature that has only been retained in the genelect of the oldest speaking generation. As we demonstrate in the following, this assumption can be corroborated with evidence from historical sources.

### 3.4 Diachronic considerations

In the case of Bunan, we are in the fortunate position of possessing data from the early 20th century, which allow us to study changes that occurred in the verbal systems over the course of the past one hundred years. The data in question were collected by the German missionary August Hermann Francke. Based on Francke's material, it is possible to compare the present tense system of contemporary Bunan with the present tense paradigm that was recorded one hundred years ago. The present tense paradigm reported by Francke (1909) is given in the table below.<sup>11</sup>

**Table 5.** Francke's (1909) present tense paradigm

	SG	PL
1	<i>ligce<sup>g</sup></i>	<i>ligche<sup>g</sup></i>
2	<i>ligcana</i>	<i>ligchagni</i>
3	<i>ligcare</i>	<i>ligchak</i>

Remarkably, Francke's present tense forms give the appearance of a paradigm that is based on the categories "person" and "number". It is not difficult to relate these forms to the verbal endings given in Table 4. Francke's first person forms clearly correspond to egophoric forms in contemporary Bunan, whereas Francke's third person forms correspond to allophoric forms. Francke's second person forms, finally, are equivalent to the second person forms in contemporary Bunan.

When having a first look at these correspondences, one immediately gets the impression that Francke may have been confronted with the egophoricity system that is attested in contemporary Bunan, but wrongly imposed an agreement system onto the language. Such an interpretation seems especially plausible in consideration of the fact that epistemic verbal categories were virtually unknown in the early 20th century and, accordingly, often ignored or misinterpreted by Western scholars (cf. Aikhenvald 2004: 12). However, on closer examination, it becomes clear that it is not justified to reject Francke's analysis beforehand. As a matter of fact, there are various pieces of evidence that suggest that his analysis was accurate and that Bunan exhibited a full-fledged verb agreement system one hundred years ago. As these pieces of evidence have already been discussed in Widmer (2015), they are not recapitulated in full here. Rather, we confine ourselves to mentioning the most relevant points.

First, Francke (1909) provided a wealth of paradigms for Bunan, all of which are fully inflected for person and number. Moreover, Francke (1998: 135) explicitly

11. Francke used superscript <sup>g</sup> to transcribe unreleased plosives in syllable final position.

noted that the “[t]he three languages of Lahoul [i.e. Bunan, Manchad, and Tinan] have very full systems of conjugation, with terminations for the different persons, singular and plural, whilst the Tibetan verb hardly ever distinguishes between persons.” The fact that Francke recognized that the verbal systems of western Tibetan varieties (see Koshal 1979; Hein 2001, 2007; Preiswerk 2011) were different from the verb systems of the West Himalayish languages spoken in Lahaul strongly suggests that Bunan did not exhibit a full-fledged egophoricity system in those days. If Bunan had displayed a firmly established egophoricity system, it would seem strange that Francke acknowledged the different nature of Tibetan verbal systems while imposing a verb agreement system on Bunan.

Second, there is language-internal evidence indicating that Bunan possessed a full-fledged verb agreement system in the past. For one thing, the verb in contemporary Bunan is inflected for a binary number opposition (“singular” vs. “plural”, see above). This number distinction was already reported by Francke (1909, 1998). For another thing, there are still remnants of first and second person agreement endings, and these correspond to the first and second person agreement endings described by Francke (1909, 1998). Accordingly, syntactic agreement in terms of both “person” and “number” is still attested in contemporary Bunan. The fact that person and number distinctions are more common in the speech of old speakers suggests that they are the remnants of a more complex agreement system.

Third, there is comparative evidence for the claim that Bunan once possessed a verb agreement system. All West Himalayish languages that have been described to the present day have been reported as possessing verb agreement systems, and some of the person agreement markers found in those languages are clearly cognate with the epistemic markers found in Bunan. The following tables give an overview of first and second person agreement markers in selected West Himalayish languages.<sup>12</sup>

**Table 6.** First person endings in selected West Himalayish languages

Language	First singular	First plural	Source
Manchad	-g, -ga	-ñi	(Sharma 1996: 86–87)
Tinan	-g	-ñi	(Sharma 1996: 90–91)
Kinnauri	-k	-c	(Takahashi 2001: 109)
Shumcho	-k <sup>h</sup>	-k <sup>h</sup> , -c	(Huber 2013: 229)
Sunnam	-k <sup>h</sup> i, -k	-k <sup>h</sup> i, -k	(Widmer, fieldnotes)
Rongpo	-ki, -ñ	-ni	(Zoller 1983: 68)

12. Third person endings are not considered here, as the third person category is often zero-marked in West Himalayish languages. To be sure, a number of West Himalayish languages display third person markers. However, the relevant morphemes cannot be reconstructed for Proto-West Himalayish, which suggests that they are language-specific innovations.

Table 7. Second person endings in selected West Himalayish languages

Language	Second singular	Second plural	Source
Manchad	-n, -na	-ñi	(Sharma 1996:86–87)
Tinan	-n	-ñi	(Sharma 1996:90–91)
Kinnauri	-n	-č	(Takahashi 2001:109)
Shumcho	-n, -na	-ç	(Huber 2013:229)
Sunnami	-na, -nu	-na, -nu	(Widmer, fieldnotes)
Rongpo	-n	-ni	(Zoller 1983:68)

As the two tables illustrate, the Bunan singular endings *-ek* ‘PRS.EGO.SG’ and *-ana* ‘PRS.2SG’ have clear cognates in other West Himalayish languages. The Bunan plural markers *-<sup>h</sup>ek* ‘PRS.EGO.PL’ and *-<sup>h</sup>akni* ‘PRS.2PL’ are more difficult to relate to plural endings in other West Himalayish languages. This is a consequence of the fact that several West Himalayish languages have generalized the second person plural form (Manchad, Tinan, Rongpo) or innovated new markers (Kinnauri, Shumcho). Nevertheless, both plural markers have clear cognates in other West Himalayish languages. The ending *-<sup>h</sup>ek* ‘PRS.EGO.PL’ has a cognate in Shumcho *-k<sup>h</sup>* and Sunnami *-k<sup>hi</sup>* / *-k*, while the second syllable of the ending *-<sup>h</sup>akni* ‘PRS.2PL’ has cognates in Manchad, Tinan, and Rongpo. Also note that the second person endings *-ana* and *-<sup>h</sup>akni* have cognates outside of West Himalayish (see DeLancey 2014).

This strongly suggests that Bunan indeed possessed a full-fledged agreement system in the past and that Francke’s (1909) account of the Bunan verbal system has to be taken seriously. At the same time, there is evidence that the egophoricity system of contemporary Bunan was already emergent in the beginning of the 20th century. This is suggested by the fact that there is some evidence for a “change in progress” in the Bunan sources from the early 20th century. For example, Konow noted in the *Linguistic Survey of India* (Grierson 1909: 473) that Bunan commonly indexed the person and number features of the subject on the predicate, but also acknowledged that “[t]he personal suffixes are often dropped altogether”. Konow’s statements suggests that certain person markers were gradually becoming obsolete in the early 20th century, which in turn indicates that some speakers had already shifted to the innovative epistemic system that no longer incorporated those endings. Further, Francke (1909) reported a full-fledged person agreement paradigm for the equative copula *jen-*. However, in a number of stories (Francke 1926, 2008) he also reported forms that are formally and functionally equivalent to the egophoric and allophoric forms of the equative copula in contemporary Bunan. Again, this indicates that syntactic agreement and epistemic marking coexisted in the times of Francke.

In this context, it is also interesting to consider a statement made by one of our oldest consultants (\*1939) when going through Francke’s materials. When

confronted with Francke's paradigms, he said that he was familiar with these forms and that this was the way old women used to talk when he was young. His statement suggests that in the mid-20th century the archaic person agreement system was still commonly encountered in the speech of old female speakers. This implies that the functional transformation of verb agreement into epistemic marking may have started out in male speech and was only later adopted by women. This scenario would fit well with Jäschke's (1865: 94) statement that Tibetan varieties – the languages which most probably had a strong influence on the emerging epistemic verbal system – were “understood and spoken fluently enough in intercourse with genuine Tibetans by the adult men, but more or less imperfectly by women and children” in the mid-19th century.

If Francke's account of the Bunan verbal system was accurate, this leads us to the question of how the functional reanalysis of person agreement markers as epistemic markers went about and what ultimately triggered it. An internal reconstruction of the Bunan agreement system helps identify the kind of constructions in which the functional motivation may have arisen. Based on the diachronic correspondences established in Table 1, we may assume that the clauses given in (19) and (21) must originally have been based on what in retrospect appear to be “agreement mismatches”, as the first person pronoun *gi* occurred together with the verbal ending *-are*, which must originally have been a third person agreement marker. Accordingly, we may infer that the construction that triggered the functional transformation of person markers as egophoricity markers allowed the combination of subject pronouns with non-congruent person markers to express epistemic distinctions. The grammar of contemporary Bunan does not allow us to identify this construction, as the former person distinction has been reanalyzed as an egophoricity opposition for the major part. However, there are other Tibeto-Burman languages that bear witness to early stages of the functional transformation of person markers into egophoricity markers and, accordingly, may provide us with interesting insights into the functional motivation of the diachronic process. Two such languages are discussed in the following section.

#### 4. Comparative perspective

In this section, we discuss two languages that appear to have been affected by the same functional transformation that affected the verbal system of Bunan. We trace the process in reverse temporal order, that is to say, we first discuss a language that provides clear evidence for an epistemic use of person agreement morphology and then turn to a language that does not bear witness to the functional reanalysis, but still appears to give evidence of a very early stage of the process.

## 4.1 Dolakha Newar

Dolakha Newar belongs to the Newaric branch of Tibeto-Burman and is spoken in East Nepal (Janakpur Zone) by about 5,000 speakers (Genetti 2007). Genetti describes Dolakha Newar as a language with an agreement system that is based on the categories “person” and “number”. Consider the following table, which gives the present tense forms of the verb *hat-* “to say”.

Table 8. Dolakha Present Tense paradigm

	Singular	Plural
1	<i>hat-a-gi</i>	<i>hat-a-gu</i>
2	<i>hat-a-n</i>	<i>hat-a-min</i>
2 <sub>HON</sub>	<i>hat-a-gu</i>	<i>hat-a-gu</i>
3	<i>hat-a-i</i>	<i>hat-a-hin</i>

As the paradigm illustrates, Dolakha verbs are inflected for both person and number. Apart from a syncretism between the first person plural form and the second person honorific forms, the different forms are formally distinct.

However, the paradigm given in Table 8 conceals a peculiar feature of Dolakha agreement morphology: Agreement markers are not consistently used to index the person value of the subject on the predicate. In certain contexts, the grammar of Dolakha allows for the exploitation of person markers to encode epistemic distinctions. Genetti (2007: 172–174) has referred to this phenomenon as “disagreement in person”. An example that illustrates this is given in the following.

- (29) *ji=ŋ      sir-eu.      ji    chana    nāpa    tuŋ    sir-i*  
 1SG=EXT die-3SG.FUT 1SG 2SG.GEN together FOC die-1SG.FUT  
 ‘I will also die. I will die with you.’ (Genetti 2007: 172)

In the example given above, the verb *sir-* occurs twice with a first person subject. In the first case, the predicate takes the third person ending *-eu*, while in the second case it receives the first person ending *-i*. There is thus “disagreement” between the first person singular pronoun *ji* and the third person verb form *sir-eu*, which according to Genetti is employed to encode differences in terms of volitionality. The use of a third person ending with a first person subject indicates that the relevant event is not subject to the speaker’s will. The use of a first person ending, in turn, indicates that the speaker exercises some degree of control over the event. In the example above, the event of dying is thus portrayed in two different ways. By means of the verb form *sir-eu* ‘die-3SG.FUT’, the protagonist portrays her own death as an inevitable fact that is beyond her control, while with the verb form *sir-i* ‘die-1SG.FUT’, she portrays it as an intentional act. Accordingly, the epistemic use

of first and third person markers in Dolakha Newar is functionally reminiscent of egophoric and allophoric endings in an egophoricity system as we find it in Bunan. “Egophoric” forms indicate that the speaker assumes a privileged epistemic perspective with regard to an event by virtue of being the participant who intentionally instigates the relevant event. “Allophoric” forms express that the speaker does not have that kind of privileged epistemic perspective.

In spite of these obvious functional similarities, there are a number of differences, however. First, “egophoric” markers in Dolakha Newar have a wider range of application than their functional counterparts in Bunan. Dolakha “egophoric” markers may occur in combination with any kind of event type to indicate that the assertor is performing an action intentionally, e.g. as in (29), where the non-controllable verb *sir-* ‘to die’ takes “egophoric” marking. Such a use of egophoric markers is not possible in Bunan. Second, predicates that denote endoceptive events take default “allophoric” marking in Dolakha Newar if their subject is identical with the assertor. In Bunan, endoceptive events take default egophoric marking under similar circumstances. Consider the following Dolakha example.

- (30) *ji=ŋ tharthar thut-a*  
 1SG=EXT EXPR shiver-3SG.PST  
 ‘I also shivered, going “tharthar”’. (Genetti 2007: 172)

Third, the epistemic use of person markers has not only been described for first person subjects in Dolakha Newar. The same phenomenon is also attested in combination with second person subjects, as the following example sentences illustrate.

- (31) *chi tul-eu*  
 2SG fall-3SG.FUT  
 ‘You will fall’. (Genetti 2007: 174)

- (32) *chi tul-ina*  
 2SG fall-2SG.FUT  
 ‘You will fall intentionally (e.g. as we have planned)’. (Genetti 2007: 174)

The fact that the person morphology of Dolakha Newar can serve both a syntactic function and an epistemic function gives rise to the question of how these two functions are interrelated. According to Genetti (2007: 174), the syntactic function is clearly more fundamental in contemporary Dolakha Newar:

While it is possible to manipulate the agreement system in this way, it is not at all common, and it has certainly not grammaticalized in the sense of becoming a regular or required feature of the grammar of the language. One can certainly use first-person morphology with non-control verbs without any added implication of heightened volition [...]. It is the use of the third-person morphology with first-person subjects which is marked, and which emphasizes the lack of volition.

Accordingly, the Dolakha verbal system encodes person agreement for the main part, but may be exploited to encode differences in terms of volitionality. The Dolakha Newar verbal system thus bears witness to the same functional reanalysis that also affected the Bunan verbal system, as argued by Widmer (2015). However, it appears that Dolakha Newar bears witness to an earlier stage of that transformation. In Bunan, the old person agreement system has been largely reanalyzed as an egophoricity system and is only accessible through internal reconstruction. In Dolakha Newar, however, the person agreement system and the egophoricity system coexist synchronically. The Dolakha agreement markers can be exploited to express epistemic categories, but still serve the primary function of indexing person values on the predicate. From the perspective of contemporary Bunan, Dolakha Newar thus represents “a window to the past” that may provide us with interesting insights into the functional transformation of person markers into egophoricity markers.

However, the examples that we have considered so far do not allow us to make any conclusions about the motivation of the change. Simple declarative clauses do not seem to constitute a grammatical environment that induces the reanalysis of person marking as epistemic marking, as there is no obvious reason for why such constructions should give rise to the innovative epistemic construal of person markers by themselves. This gives rise to the question as to whether there are other grammatical constructions in Dolakha Newar where person markers are used to encode epistemic differences. Indeed, there are such constructions, viz. reported speech complement clauses. Consider the following example sentences.

- (33) *rekā=n jin rājā=ta nāplat-ki haṅ-an hat-cu*  
 Reka=ERG 1SG.ERG king=DAT meet-1SG.PST say-PART say-3SG.PST  
 ‘Reka<sub>i</sub> said “I<sub>i</sub> met the king.”’ (Genetti 1994: 109)
- (34) *rekā=n jin rājā=ta nāplat-cu haṅ-an hat-cu*  
 Reka=ERG 1SG.ERG king=DAT meet-3SG.PST say-PART say-3SG.PST  
 ‘Reka<sub>i</sub> said that I<sub>j</sub> met the king.’ (Genetti 1994: 109)

The reported speech complement given in (33) reproduces the words of the reported speaker. The complement clause does not display any features that would mark it as a reported utterance and would still be grammatical if it occurred without an accompanying quote frame. Accordingly, the reported speech complement in question represents an instance of “direct speech”. The situation is different for the sentence given in (34). Here, the reported speech complement no longer faithfully reproduces the words of the reported speaker. Rather, the personal pronoun *jin* ‘1SG’ reflects the viewpoint of the primary speaker, whereas the verb form *nāplat-cu* ‘meet-3SG.PST’ reflects the perspective of the reported speaker. Accordingly, the reported speech complement does not represent an instance of canonical “direct

speech”, which renders all deictically sensitive expressions from the perspective of the reported speaker, nor can it be interpreted as canonical “indirect speech”, which renders all deictically sensitive expressions from the perspective of the primary speaker (cf. Evans 2012: 68–72). Rather, the reported speech complement in (34) represents a hybrid of the two prototypes. At this point, we do not want to analyze this type of deictically mixed reported speech construction in more detail, as we will go further into this matter in §5. For the time being, we may conclude that the aforementioned type of reported speech construction bears witness to a seeming agreement mismatch in terms of the verbal category “person”.

It is important to note that Dolakha Newar does not possess indirect reported speech constructions, in which a finite inflected predicate renders the perspective of the primary speaker (Genetti, personal communication). In other words, a finite inflected verb form in a reported speech clause is invariably bound to the perspective of the reported speaker.<sup>13</sup>

The fact that instances of “disagreement in person” are attested in both simple declarative clauses and hybrid reported speech constructions in Dolakha Newar strongly suggests that there is a connection between the two phenomena. Note that this hypothesis is not new. The formal and functional parallels between the two constructions were already noted by DeLancey (1992: 58–59) and Genetti (1994: 108–110). However, the two authors did not provide a more detailed account of how such constructions might trigger the reanalysis of person agreement markers as epistemic markers.

As the use of person morphology for expressing epistemic distinctions rather than syntactic agreement has not been reported for any other grammatical domain in Dolakha Newar, we may infer that the phenomenon must have originated either in simple declarative clauses or deictically mixed reported speech constructions.<sup>14</sup> As argued above, it is unlikely that simple declarative clauses represent the locus of the epistemization of person agreement, as there is no functional explanation as for why simple declarative clauses should trigger such a functional reanalysis. This then suggests that deictically mixed reported constructions are in some way related to the epistemization of person agreement. However, if reported

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13. Genetti (2007: 415) describes a reported speech construction that she refers to as “indirect quotation”. However, that construction is based on a nominalized verb form rather than a finite inflected predicate.

14. Of course, it is conceivable that the construction that originally triggered the epistemic use of person markers no longer exists in contemporary Dolakha Newar. However, as we argue in the following subsections, reported speech constructions provide an environment that allows for the functional reanalysis of person markers as egophoricity markers.

speech constructions with mixed deixis such as the one given in (34) indeed have something to do with the functional reanalysis, then it should be possible to find languages that only display a prestage of the epistemic construal of person markers in deictically mixed reported speech complements, but have not yet extended epistemic marking to other grammatical contexts. A language that bears out this prediction is described in the following section.

## 4.2 Sunwar

Sunwar is a language of the Kiranti subgroup that is spoken in East Nepal (Janakpur and Samargata Zone) by approximately 25,000 speakers (Borchers 2008). Sunwar varieties generally possess verb agreement systems, but differ in terms of the complexity of these systems. The Sunwar variety described by Borchers (2008) merely displays monoactantial subject agreement, while the varieties described by Genetti (1988) and DeLancey (1992) exhibit biactantial agreement systems. Borchers (2008: 158) attributes these differences to a recent process of language change that triggered the simplification of the agreement system. The following table gives an overview of the monoactantial subject agreement system described by Borchers (2008: 199). A detailed description of the more conservative biactantial agreement system can be found in Genetti (1988).

**Table 9.** Sunwar past tense paradigm (*gyap*- ‘to buy’)

	Singular	Dual	Plural
1	<i>gyap-ta</i>	<i>gyap-tāsku</i>	<i>gyap-tāk(a)</i>
2	<i>gyap-tī</i>	<i>gyap-tisī</i>	<i>gyap-tinī</i>
3	<i>gyap-tu</i>	<i>gyap-tās(e)</i>	<i>gyap-tem(e)</i>

Borchers (2008) does not report the use of person agreement markers to express epistemic distinctions. However, DeLancey (1992: 58) provides examples of reported speech constructions that are structurally similar to the deictically mixed reported construction that was described for Dolakha Newar in the previous section. Consider the following examples.

(35) *mere-m go-m kyarš 'saī-tu de 'tuī-šo tsha*  
 3SG-ERG 1SG-ERG goat kill-PST.3SG>3SG COMP know-NMLZ exist  
 ‘S/he knows that I killed a goat.’ (DeLancey 1992: 58)

(36) *mere-m mere-m kyarš 'saī-tu de 'tuī-šo tsha*  
 3SG-ERG 3SG-ERG goat kill-PST.3SG>3SG COMP know-NMLZ exist  
 ‘S/he<sub>i</sub> knows that s/he<sub>j</sub> killed a goat.’ (DeLancey 1992: 58)

- (37) *mere-m mere-m kyarš 'saî-ta de 'tuî-šo tsha*  
 3SG-ERG 3SG-ERG goat kill-PST.1SG>3SG COMP know-NMLZ exist  
 'S/he<sub>i</sub> knows that s/he<sub>i</sub> killed a goat.' (DeLancey 1992: 58)

In (35) through (37), the subject pronoun of the reported speech clause is calculated from the perspective of the primary speaker, while the predicate is calculated from the perspective of the reported speaker. The mingling of perspectives is evident in (35), where the first person pronoun *go-m* '1SG-ERG' is combined with the third person subject form '*saî-tu* 'kill-pst.3SG>3SG', and (37), where the third person pronoun *mere-m* '3SG-ERG' is combined with the first person subject form '*saî-ta* 'kill-pst.1SG>3SG'.

DeLancey (1992: 58–59) makes three comments about the use of agreement morphology in Sunwar that are worth being repeated here. First, he notes that the predicate in the complement clause does not have to reflect the perspective of the reported speaker, but may also render the perspective of the primary speaker. Accordingly, the language does not only possess deictically mixed reported speech constructions, but also displays indirect speech constructions. Second, DeLancey explicitly states that the phenomenon is not attested in simple declarative clauses, but is restricted to reported speech constructions. Third, he reports that the use of agreement morphology to express differences in terms of controllability or volitionality is not attested in Sunwar. Hence, Sunwar first and third person markers most probably do not serve an epistemic function, but rather appear to encode a syntactic opposition of “same person” vs. “other person”, respectively, in the context of reported speech clauses. Still, the reduction of the three-fold agreement system to a binary opposition in reported speech constructions is formally reminiscent of the epistemic opposition that is attested in Dolakha Newar.

These conjectures suggest that reported speech constructions are likely to be the grammatical domain in which the functional reanalysis of person markers takes place. In the following section, we will demonstrate that such constructions indeed represent a suitable grammatical context for the process to take place.

## 5. Reported speech constructions and the epistemization of person markers

In this section, we want to elaborate on how exactly deictically mixed reported speech constructions may facilitate an epistemization of person markers. For this purpose, we first discuss deictically mixed reported speech constructions in an areal perspective in §5.1, before turning to the epistemization of person markers in §5.2.

## 5.1 Hybrid reported speech

In §2.3, we introduced Evans' (2012) canonical typology of reported speech constructions, based on which we argued that reported speech constructions in natural languages do not necessarily have to comply with the two prototypes "direct speech" and "indirect speech". Rather, reported speech constructions may be deictically mixed, that is to say, contain deictically sensitive expressions that are calculated from different perspectives. In this article, we have already come across deictically mixed reported speech constructions in §3 and §4. The three languages that have been discussed in the preceding sections all possess reported speech constructions in which the predicate is calculated from the perspective of the reported speaker (i.e. a "direct perspective"), whereas pronouns (and other deictically sensitive expressions such as adverbs, demonstratives, etc.) are calculated from the perspective of the primary speaker (i.e. an "indirect perspective"). While such constructions appear peculiar from a Eurocentric perspective, they are commonly encountered in the Tibeto-Burman languages of the Himalayas, especially among Tibetic languages, e.g. Standard Tibetan (Tournadre & Dorje 2003: 215–216), Shigatse Tibetan (Haller 2000: 224–226), Themchen Tibetan (Haller 2004: 159), Purik Tibetan (Zemp 2014: 783–786), and Dege Tibetan (Häsler 1999: 236–238), *inter alia*. In addition, they can also be found in a number of Tibeto-Burman languages that do not belong to the Tibetic subgroup, e.g. Bunan, Standard Kinnauri, Kaike, Kathmandu Newar, Dolakha Newar, Sunwar, Japhug, and Rtau.

The following pairs of examples are taken from Haller & Haller (2007) and contrast direct reported speech constructions with corresponding deictically mixed reported speech constructions.

- (38) Direct speech (Shigatse Tibetan)  
 $k^h\text{ə̀}$      $\eta\text{a}$      $p^h\text{ə̀pā}$      $j\tilde{i}$      $s\text{a}$   
 3SG.ERG 1SG Tibetan COP.EGO say.PFV  
 'S/he<sub>i</sub> said, "I am Tibetan."<sup>15</sup> (Haller & Haller 2007: 225)
- (39) Deictically mixed speech (Shigatse Tibetan)  
 $k^h\text{ə̀}$      $k^h\text{ō}$      $p^h\text{ə̀pā}$      $j\tilde{i}$      $s\text{a}$   
 3SG.ERG 3SG Tibetan COP.EGO say.PFV  
 'S/he<sub>i</sub> said (that) s/he<sub>i</sub> is Tibetan.' (Haller & Haller 2007: 225)
- (40) Deictically mixed speech (Shigatse Tibetan)  
 $k^h\text{ə̀}$      $\eta\text{a}$      $p^h\text{ə̀pā}$      $pi\text{ɛ}$      $s\text{a}$   
 3SG.ERG 1SG Tibetan COP.ALLO say.PFV  
 'S/he said (that) I am Tibetan.' (Haller & Haller 2007: 226)

15. In natural speech, one of the two pronouns is commonly dropped if they refer to the same person (cf. Tournadre & Dorje 2003: 216).

Tournadre & Dorje (2003:216) have coined the term “hybrid reported speech” for this type of reported speech construction and we will adopt this term for the following discussion. The following map shows the geographical distribution of languages with hybrid reported speech constructions in the Himalayas. Tibetic languages are marked with a circle (○), while non-Tibetic languages are marked with a triangle (△).



**Figure 1.** The geographical distribution of hybrid reported speech constructions

In most Tibeto-Burman languages, the presence of hybrid reported speech constructions is an epiphenomenon of egophoricity marking. Remember that canonical egophoricity systems revolve around the notion of the assertor, viz. the speech act participant whose access to the knowledge conveyed in a proposition is at stake. As argued in §2.2, the assertor in reported speech clauses is the reported speaker. Accordingly, a language with a canonical egophoricity system is expected to display a reported speech construction with mixed deixis if the egophoricity opposition is encoded in the domain of reported speech.<sup>16</sup>

16. This prediction is borne out by the fact that such constructions have been described for languages with egophoricity systems that are not spoken in the greater Himalayan region, e.g. the Barbacoan language Tsafiki (Dickinson 2002:94) or the Nakh-Daghestanian language Akhvakh (Creissels 2008:9).

Hybrid reported speech constructions, however, have not only been reported for Himalayan languages with egophoricity systems, but also for languages with person agreement systems. Two such languages, Dolakha Newar and Sunwar, have been discussed in §4 above. In addition, Jacques (2007) and Antonov & Jacques (2014) have described hybrid reported speech for the Rgyalrongic languages Japhug and Rtau, respectively, both of which display person agreement systems, and the diachronic scenario that we argue for in this article entails that Bunan already displayed hybrid reported speech constructions when the language still possessed a full-fledged person agreement system.

The abovementioned non-Tibetic languages with hybrid reported speech constructions are all spoken on the fringe of the Tibetan speaking area. This suggests that hybrid reported speech may have arisen in these languages through contact with Tibetan varieties. This assumption is corroborated by the fact that all of the relevant languages have been in contact with Tibetan varieties in the past. The influence of Tibetan is most obvious in the case of Bunan, which displays a strong Tibetan influence both in its lexicon and in its grammar (Widmer forthcoming). In the case of Rgyalrongic languages, the presence of Tibetan loanwords likewise suggests a longstanding contact with Tibetan speaking communities (cf. Jacques 2007: 83). In the case of Sunwar and Dolakha Newar, the influence of Tibetan may be less apparent. However, van Driem (2001: 725–726) reports that northern Sunwar communities have been in longstanding contact with Tibetan speaking communities. In the case of Dolakha Newar, there is evidence that the Dolakha community was engaged in trade with Tibet in the past. Genetti (2007: 21) and Slusser (1982: 60, fn. 56) describe Dolakha as an important village on the trade route to Tibet. Accordingly, there is good evidence that the presence of hybrid reported speech in languages such as Dolakha Newar, Sunwar, Japhug, and Rtau is the consequence of intense language contact with Tibetan speaking communities.

If we describe hybrid reported speech as an areal feature, we have to be clear about what exactly we mean when we say that the reported speech strategy is borrowed from one language into another. In line with Evans' (2012) approach, we maintain that the borrowing process should not be described at the level of the entire reported speech construction but at the level of individual deictically sensitive constituents. Accordingly, the recipient language does not borrow the entire construction but the convention of an invariably direct construal of the predicate in reported speech. In other words, the recipient language more and more ties the predicate of reported speech clauses to the perspective of the reported speaker. As a consequence, an indirect construal of the predicate becomes less and less conventional and is eventually no longer possible. In the following section, we address the diachronic implications of this development.

## 5.2 The epistemization of person markers

In the previous section, we have described the phenomenon of hybrid reported speech, a particular type of reported speech construction with mixed deixis that is commonly encountered in Tibeto-Burman languages of the Himalayan area. We have put forward the hypothesis that hybrid reported speech represents an areal phenomenon in the Himalayas and arises if a language adopts the invariably direct construal of the predicate in reported speech clauses, while retaining the indirect construal of other deictically sensitive constructions such as personal pronouns. In the following, we discuss the diachronic consequences of this innovation. We first describe the process from a purely functional perspective without reference to particular languages and then relate it to the different pieces of evidence that can be found in the grammar of Bunan, Dolakha Newar, and Sunwar.

In languages that allow for both a direct and an indirect construal of the predicate in reported speech, the opposition of direct and indirect forms allows a speaker to frame a reported utterance in two different ways. The speaker may either choose to report the event in direct speech and to adopt the viewpoint of the reported speaker (i.e. *She said, "I eat meat."*), or she/he may choose to render the event in indirect speech and to report the relevant facts from her/his own perspective (i.e. *She<sub>i</sub> said (that) she<sub>i</sub> eats meat.*). Accordingly, she/he may either take an "inside perspective" or an "outside perspective" with regard to the reported event. The difference between direct and indirect reports thus appears to be a purely stylistic matter in such languages. However, the distinction may gradually acquire an epistemic dimension if the grammar of a language begins to generalize the "direct" construal of the predicate. As we have argued in the preceding section, this convention appears to spread easily from one language to another through language contact.

Let us briefly illustrate this development on the basis of first and third person forms, which serve as the basis of the emerging epistemic system.<sup>17</sup> In reported discourse, first person forms are prototypically construed as "direct", that is, as expressing the inside perspective of the reported speaker (e.g. *She said, "I eat meat."*). To be sure, first person forms may also be interpreted "indirectly", that is, as expressing an outside perspective on the primary speaker from the stance of the reported speaker (e.g. *She said (that) I eat meat.*). However, the second possibility is clearly less common and pragmatically marked, as speakers rarely report events in the form of quotations if they perform or performed them themselves. First person forms are thus commonly associated with a direct perspective, and the data that were discussed in the preceding section strongly suggest that their

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17. We do not discuss second person endings at this point, as they gradually become functionally obsolete in the course of the epistemization. This process is discussed in §6.3 in more detail.

direct construal may eventually become generalized. Once a language adopts this convention, first person forms may no longer relate to the “outside perspective” of the primary speaker, but exclusively express the “inside perspective” of the reported speaker. In case of third person markers, things are different. Third person forms are equally likely to relate to the perspective of the reported speaker (e.g. *She<sub>i</sub> said, “(S)he<sub>j</sub> eats meat.”*) or the perspective of the primary speaker (e.g. *She<sub>i</sub> said that she<sub>i</sub> / (s)he<sub>j</sub> eats meat.*) and are thus not naturally associated with either a direct or an indirect construal. However, as we have argued above, first person forms have a natural tendency to be associated with direct speech and may eventually be consistently construed as expressing a direct perspective, and it is easily conceivable that this invariably direct construal may then be analogically extended to third person forms.

If a language gradually adopts the convention of allowing a consistently direct construal of reported predicates, the opposition of a direct vs. an indirect construal of the predicate comes to serve as the basis of an innovative grammatical category. The permanent direct construal of predicates in reported speech clauses entails that the formerly stylistic distinction of an inside perspective expressed by first person markers (i.e. event construed from the reported speaker’s viewpoint) and an outside perspective expressed by third person markers (i.e. event construed from the primary speaker’s viewpoint) is transferred into a distinction that specifies the relation between the subject of the matrix clause and the subject of the dependent clause as referring to either the same person or a different person. This binary distinction may then develop into an egophoricity opposition.

Based on the small amount of data that is currently available, it is not possible to say whether the binary opposition that is described in the preceding paragraph will inevitably evolve into an egophoricity opposition or whether it might remain a reduced syntactic system that indexes whether or not the subject of the matrix clause and the subject of the dependent clause are coreferent. In other words, the data do not allow us to determine whether the binary system will initially still be syntactically motivated, but may later be reanalyzed as being epistemically motivated or whether the syntactic construal and the epistemic construal of the binary opposition represent entirely distinct lines of development. Notwithstanding these uncertainties, there is little doubt that the former opposition between first person endings and third person endings may develop into a “proto-epistemic” distinction that specifies the reported speaker’s access to the reported event as either “privileged due to internal perspective” or “non-privileged due to external perspective”, respectively, once the direct construal of the predicate in reported speech clauses has become entirely generalized. In the course of the epistemization, person markers thus change their function and begin to revolve around a new grammatical concept, viz. the assessor. In other words, they cease to bear a syntactic relation to

the person subject of a clause and begin to bear an epistemic relation to the assertor of the proposition, which is the person who originally uttered these sentences, that is the reported speaker.<sup>18</sup> The proto-epistemic distinction is initially still confined to reported speech constructions. Subsequently, the scope of markers expressing privileged access is reduced to a number of specific participant roles (see §6.1 for a discussion of this aspect), which in turn allows for the extension of epistemic marking to new contexts (see §6.2 for a discussion of this aspect), that is to say, simple declarative and interrogative clauses. Evidence from Dolakha Newar and Bunan suggests that epistemic marking first supersedes the old person agreement system in simple declarative contexts. In interrogative contexts, remnants of the former person agreement system persist for some more time, but eventually epistemic marking becomes fully established in interrogative contexts as well and thus completely replaces the former person agreement system.

The languages discussed in §3 and §4 bear witness to different stages of the process described above. Sunwar appears to be a language in which we encounter an early stage of the functional transformation. The language possesses hybrid reported speech complement clauses, in which person markers allow for a distinction between “same person” (marked by first person endings) and “other person” (marked by third person endings) that appears to be syntactically rather than epistemically motivated. At the same time, Sunwar also exhibits indirect speech complement clauses, in which there is straightforward agreement in terms of the category person between the subject and the predicate of the speech complement clause. Accordingly, the epistemic grounding of the predicate in the perspective of the reported speaker has not become generalized yet. As noted above, it is not possible to say whether the syntactic distinction of “same person” vs. “other person” bears witness to a prestige of an epistemic system or a different line of development. It is conceivable that the binary opposition remains syntactic as long as the invariably direct construal of reported predicates has not become fully conventionalized. However, for the time being, we can only speculate on the diachronic relation between the binary syntactic system that is attested in Sunwar and the binary epistemic systems that are attested in Dolakha Newar and Bunan.

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18. The term “person subject” here exclusively refers to the grammatical relation that is defined by person agreement. The epistemization of person agreement thus does not necessarily entail that the syntactic notion of subject cease to exist entirely, as the case of Bunan illustrates. In Bunan, there is still a robust “number subject”, which is defined by number agreement on the predicate (Widmer forthcoming). However, the “person subject”, which is defined by person agreement on the predicate, has been largely replaced by the notion of the assertor.

An intermediary stage of the process is documented in Dolakha Newar. The language does not possess indirect speech complement clauses with a finite predicate. Accordingly, hybrid reported speech represents the only non-direct speech strategy that is based on a finite verb form. This has allowed for the functional reanalysis of person markers as epistemic markers in the context of hybrid reported speech complements, which is reflected by the fact that the innovative epistemic system is occasionally extended to declarative clauses. Furthermore, the proto-epistemic distinction of “privileged access due to internal perspective” and “non-privileged access due to external perspective” has developed into an opposition between events that are controlled by the assertor vs. events that are not controlled by the assertor due to a reduction of the scope of egophoric markers (see §6.1 for a more elaborate discussion of this process).

A late stage of the process is attested in Bunan, where the innovative epistemic system has almost completely replaced the old person agreement system in declarative speech acts and is also firmly established in interrogative speech acts. The last remnants of the old agreement system are archaic first and second person agreement markers, which are occasionally used by old speakers in particular grammatical contexts, but are not found in the genealects of younger speakers.

In this section, we have only provided a brief and condensed characterization of the diachronic process. However, we have not yet discussed the details of the scenario. These issues are addressed in the following section.

## 6. Discussion

There are several crucial questions that have not been addressed in the preceding section. For example, we have not accounted for the narrowing of the egophoric domain that occurs in the course of the epistemization process. Also, we have not yet described how exactly the innovative epistemic system is extended to new grammatical contexts, nor have we elaborated on the loss of the second person endings. These questions and other aspects related to the diachronic scenario are taken up in the following subsections.

### 6.1 The narrowing of the egophoric domain

Let us first consider the process in the course of which the scope of egophoric markers is narrowed down to a limited set of participant roles. In §5.2, we argue that the person agreement system first evolves into a proto-epistemic opposition of “privileged access due to internal perspective” vs. “non-privileged access due to external perspective” according to the following process.

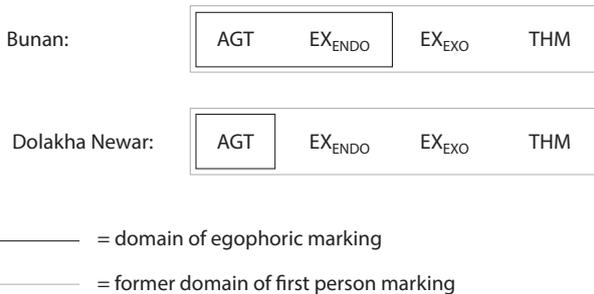
Table 10. Proposed reanalysis of person markers

Person agreement system	Proto-epistemic system
first person	⇒ privileged access
second person	⇒ –
third person	⇒ non-privileged access

During this proto-epistemic stage, markers expressing privileged access (i.e. former first person endings) and markers expressing non-privileged access (i.e. former third person endings) still retain the distribution that they displayed when they encoded person agreement. We maintain that this proto-epistemic system is unlikely to be extended to simple declarative constructions, as epistemic markers would then display a distribution that would be nearly identical to the original distribution of agreement markers. The only reference point that would allow speakers to distinguish between the epistemic and the syntactic construal of verbal endings would be their unequal patterning in declarative and interrogative contexts. Evidence from Bunan and Dolakha Newar, however, suggests that the epistemic construal of agreement markers only becomes fully established in interrogative contexts at a late stage in the epistemization process. This in turn indicates that the distribution of epistemic markers in interrogative contexts does not allow speakers to distinguish the innovative epistemic construal from the conservative agreement construal, at least not in initial stages of the transformation, as personal questions to the addressee are still more likely to be formed with a second person ending rather than an epistemic marker at that stage. Thus, a crucial step that creates the basic prerequisites for the extension to take place is a change in the distribution of verbal endings. The effects of this process can be seen in Bunan and Dolakha Newar. In both languages, egophoric markers no longer retain the distribution that they exhibited during the proto-epistemic stage, that is to say, they no longer occur on just any predicate that takes the assertor as its “subject”. Rather, egophoric markers have become restricted to contexts in which the assertor assumes certain participant roles.

We then have to ask the question of what may have triggered the narrowing of the egophoric domain in the two languages. In order to answer this question, it is worthwhile to take a closer look at the distribution of epistemic markers during the proto-epistemic stage of the epistemization process, viz. the phase when agreement markers have been fully reanalyzed as epistemic markers in the context of reported speech, but still display their original distribution. At that stage, egophoric markers (i.e. former first person endings) are used whenever a reported speaker is identical with the “subject” of the relevant predicate, that is, whenever the speaker makes a statement about herself/himself. Allophoric markers (i.e.

former third person endings), on the other hand, are used whenever a reported speaker is not identical with the “subject” of the relevant predicate, that is, whenever the speaker reports what another person does / did or what happens / happened to another person. In such a proto-epistemic system, the distribution of epistemic markers still bears witness to a subject relation, as that notion played a crucial role in the former agreement system. However, the subject relation is in fact no longer relevant in the epistemic system, as the proto-epistemic opposition no longer indexes the speech-act role of the subject, but rather encodes the reported speaker’s epistemic perspective with regard to the relevant event. In contrast to the reported speaker’s identity, the reported speaker’s epistemic perspective is largely a matter of construal. Accordingly, the epistemization of person markers eventually allows for a shift in the distribution of verbal endings. Evidence from Bunan and Dolakha Newar suggests that this shift can be modelled with the participant roles that were already introduced in §3.2, i.e. (i) agent, (ii) endoceptive experiencer, (iii) exoceptive experiencer, (iv) theme. In both Bunan and Dolakha Newar, exoceptive experiencers and theme arguments have fallen out of the scope of egophoric markers. In Dolakha Newar, endoceptive experiencers have become excluded from the domain of egophoric marking as well. This is illustrated in Figure 2 below.



**Figure 2.** The narrowing of the egophoric domain in Bunan and Dolakha Newar

The narrowing of the egophoric domain that occurred in Bunan and Dolakha Newar can be explained as a consequence of the fact that the four participant roles differ with regard to the “epistemic exclusiveness” of the event they are associated with. Exoceptive experiencers and theme arguments are involved in events that are generally characterized by a low degree of epistemic exclusiveness. That is because prototypically non-controllable events (e.g. falling, stumbling, losing, etc.) as well as exoceptive events (e.g. hearing, seeing, smelling, etc.) are caused by forces and conditions that are located outside of one’s body or mind. In terms of their epistemic accessibility, such events are thus conceptually contiguous to other types of events in which the assertor assumes the role of an uninvolved observer

(e.g. when stating what another person did or what happened to another person) or an involved undergoer (e.g. when stating what another person did to oneself). Accordingly, it seems sensible that situations in which the assertor assumes the role of an exoceptive experiencer or theme argument and situations in which a non-assertor assumes those roles may be conceptualized in the same way in an egophoricity system.

Endoceptive experiencers likewise appear to possess a comparatively low degree of epistemic exclusiveness. This is suggested by the fact that endoceptive experiencers have become excluded from the scope of egophoric markers in Dolakha Newar and do not fall into the scope of egophoric markers in various other languages, e.g. Kathmandu Newar (Hargreaves 2005), Kaike (Watters 2006), or Akhvakh (Creissels 2008). Still, endoceptive experiencers may be included in the scope of egophoric markers, as the case of Bunan demonstrates, where predicates denoting internal sensations receive default egophoric marking if their subject is identical with the assertor. The inconsistent patterning of endoceptive events is understandable from a cognitive perspective. Endoceptive events are more exclusive than exoceptive events in terms of their epistemic accessibility, since they involve an internal stimulus that is only accessible to the person who experiences the relevant sensation and to which no other person can relate directly. At the same time, endoceptive events are less exclusive than controllable events, as the associated mental states are often related to an entity in the outside world. The sensation of fear, for example, prototypically presupposes the presence of an entity in the surrounding world that causes one's fear. The entity in question may also evoke a similar sensation in other persons, which then means that one's mental state cannot be considered to be exclusive, as other persons can indirectly relate to it as well. Due to their intermediate status, endoceptive events may either retain a default egophoric construal if they take the assertor as their "subject", or they may receive a default allophoric construal.

The only participant role that consistently falls into the scope of egophoric markers is the agent. This is suggested by evidence from Bunan and Dolakha Newar, where egophoric markers have scope over agent arguments, and by cross-linguistic evidence in general. We know of several languages in which agent arguments are the only participant roles that fall into the scope of egophoric markers, e.g. Tsafiki (Dickinson 2000), Kathmandu Newar (Hargreaves 2005), Kaike (Watters 2006), Akhvakh (Creissels 2008), but we are not aware of a single language in which agent arguments are consistently excluded from the egophoric domain. It is not difficult to come up with a cognitive explanation for the strong association of intentional acting and egophoric marking. Knowledge that is associated with one's own intentional actions is particularly personal and exclusive, as one's intentions are only directly accessible to oneself but ultimately hidden to any other person.

In addition, one's intentions are usually not caused or influenced by entities in the surrounding world, but rather have their ultimate origin inside of one's mind. Accordingly, it is sensible that events that emanate from the assertor's intentions constitute the core of the egophoric domain.

Based on these results, we postulate the following hierarchy of participant roles, which allows us to model the change in the distribution of epistemic markers. The higher a participant role is ranked, the higher is the likelihood that the relevant participant role will fall into the scope of an egophoric marker, provided that the relevant marker can take scope over participant roles.

- (i) agent
- (ii) endoceptive experiencer
- (iii) exoceptive experiencer
- (iv) theme

**Figure 3.** The cognitive accessibility of different participant roles

Based on these considerations, the narrowing of the egophoric domain that is attested in both Bunan and Dolakha Newar may be interpreted as a natural process that is caused by differences in the epistemic accessibility of knowledge that is associated with different participant roles. Certain events are associated with a more exclusive type of knowledge than others, which eventually may cause a reorganization of the proto-epistemic system in reported speech constructions.

Another factor that may influence the development of the proto-epistemic system and that has not been addressed so far is language contact with Tibetan varieties. It is well-known that the parameter of controllability plays a crucial role in the egophoricity oppositions of many Tibetan varieties (cf. Haller 2000; Hein 2001; Tournadre & Dorje 2003: 141–142; *inter alia*). Accordingly, the strong association of egophoric marking with controllability might in some cases be explicable as a result of intense contact with Tibetan speaking communities. However, based on current knowledge, it is difficult to assess to which extent the narrowing of the egophoric domain is a consequence of contact with Tibetan varieties. Only further research on the epistemization of person markers will allow us to clarify this question.

Eventually, the synchronic distribution of epistemic markers in Bunan and Dolakha Newar suggests that the proto-epistemic distinction of “privileged access due to internal perspective” vs. “non-privileged access due to external perspective” only represents a transitory stage and is transferred into an epistemic distinction in which egophoric marking is only possible if the assertor assumes a specific participant role. As argued above, this entails that some participant roles become excluded from the domain of egophoric marking (i.e. former first person marking) and assigned to the domain of allophoric marking (i.e. former third person marking). In

other words, it becomes possible to use allophoric markers (i.e. former third person markers) in contexts in which the subject of a predicate is the assertor. This intrusion of former third person forms into the former domain of first person agreement in reported speech constructions gives rise to a clear formal contrast between the innovative epistemic construal and the conservative syntactic construal of verbal endings, which eventually creates the prerequisites for a functional extension from reported speech constructions to simple declarative and interrogative contexts. This aspect is addressed in the following section in more detail.

## 6.2 The extension of epistemic marking

In the preceding section, we have argued that a narrowing of the egophoric domain lays the foundation for an extension of epistemic marking to new grammatical domains. Now, we need to address the question of how exactly this extension takes place. In §5.2, we put forward the hypothesis that the innovative epistemic system begins to spread to declarative and interrogative contexts simultaneously, but that the extension is first completed in declarative contexts and only later in interrogative contexts. These issues are discussed in more detail in the following paragraphs.

The spread of the innovative epistemic construal of verbal endings from reported declarative to simple declarative contexts is doubtlessly facilitated by the fact that the verbal endings that express privileged access to knowledge in reported speech clauses are formally identical with the verbal endings that express first person agreement in simple declarative clauses. The first person marker in simple declarative contexts may thus subsequently acquire an epistemic construal by analogy with the phonologically identical egophoric markers in reported speech constructions and begins to index the speaker's epistemic access to the relevant event rather than her / his speech act role. The analogical epistemization of the first person marker involves that allophoric markers (i.e. former third person markers) are used in contexts in which the speaker assumes the role of an exoceptive experiencer or theme argument. Moreover, the use of allophoric markers is gradually conventionalized in declarative statements about second persons, while the use of second person markers becomes less and less common in such contexts (see §6.3 below for a discussion of the loss of second person markers). Declarative statements about third persons are not formally affected by the epistemization of person agreement markers, as they take the same default markers before and after the epistemic shift.

The spread of epistemic marking to interrogative contexts seems to be more difficult. To be sure, it appears natural that the innovative epistemic system should be analogically extended to questions once it has been firmly established in the domain of reported speech. However, we have to bear in mind that interrogative

clauses with a second person subject take second person markers. These endings are not part of the emerging epistemic system, which entails that interrogative constructions with a second person subject do not provide a suitable context for the extension of epistemic marking. Accordingly, the spread of epistemic marking into the interrogative domain most probably begins with the epistemic construal of allophoric endings (i.e. former third person markers) in questions about third persons. In the context of a question, these endings are likely to be related to the viewpoint of the addressee rather than the perspective of the speaker, as the speaker does not provide personal knowledge in such a context, but rather draws on the knowledge of the addressee. This may then facilitate the construal of the addressee as a manifestation of the assertor, which in turn allows for the use of egophoric endings (i.e. former first person markers) in personal questions to the addressee and the use of allophoric endings (i.e. former third person markers) in questions about oneself.

### 6.3 The loss of second person markers

Another question that needs to be discussed concerns the loss of second person markers. The egophoricity oppositions that are attested in Bunan and Dolakha Newar are essentially binary, while person agreement systems are prototypically threefold. Accordingly, the transformation of person agreement markers into epistemic markers necessarily entails that one person value becomes obsolete. We thus have to answer the question of why it is the second person marker rather than the first or third person marker that is lost in the course of that process.

In §5.2, we argued that person markers are reanalyzed as epistemic markers once the direct construal of the predicate in reported speech has become generalized. We may thus assume that the direct construal of the predicate is also generalized in the case of second person endings, which are then consistently related to the epistemic perspective of the reported speaker. In other words, a second person marker in reported discourse is then consistently construed as referring to the reported addressee (*She said, 'You eat meat.'*) and not to the primary addressee (*She said that you eat meat.*). We presume that second person endings are likely to become less frequent once the reported speaker's perspective has been generalized in reported speech constructions, since speakers rarely make statements about their collocutors except for pragmatically marked speech acts such as threats, commands, and warnings. Accordingly, they are gradually replaced by allophoric endings (i.e. former third person endings), which have a much higher frequency and represent one of the two functional cornerstones of the emerging epistemic system. For similar reasons, second person endings are replaced by allophoric endings in simple declarative contexts once the epistemic construal of person endings

is extended to new grammatical contexts. In the case of interrogative contexts, second person endings appear to persist longer, which is most probably due to the fact that the spread of epistemic marking to such contexts is more intricate than the spread to simple declarative contexts (see §6.2). However, eventually they are superseded by epistemic markers in interrogative clauses as well.

Admittedly, an emerging egophoricity system may incorporate the second person endings, as the case of the Dolakha Newar examples (31) and (32) illustrates. However, our scenario suggests that this epistemic use of second person endings does not arise in reported speech, but rather emerges in simple declarative clauses in consequence of a generalized conventional implicature (Atlas & Levinson 1981: 33). When the epistemic construal of former third person endings is gradually conventionalized in simple declarative clauses, these endings begin to contrast with second person endings. As the former third person endings are associated with an “outside perspective”, second person endings may become associated with the opposite value, i.e. an “inside perspective”. However, it appears that such a ternary epistemic system only represents an instable transitory stage in the epistemization of person agreement markers. In any case, this is suggested by evidence from Bunan, where second person endings are on the verge of becoming entirely obsolete.

#### 6.4 Other possible starting point for the process

Finally, one may ask the question of whether person markers are the only type of verbal endings that are likely to undergo an epistemic reanalysis in complement clauses or whether there are other classes of morphemes that could potentially undergo a similar functional transformation in complementation constructions. There is evidence that certain non-finite verb forms may serve as a basis for emerging egophoricity oppositions. The Tibeto-Burman language Kathmandu Newar, which is closely related to the language Dolakha Newar discussed in §4.1, exhibits an egophoricity system that has developed from non-finite verb forms. Although the relevant diachronic process has not been described in detail, there is evidence that the reanalysis of non-finite endings as epistemic markers occurred in complement constructions, where these suffixes were exploited to indicate whether or not the subject of the matrix clause was coreferent with the subject of the complement clause (cf. Genetti 1994: 135–136). This suggests that other types of paradigmatically arranged verbal endings may be recruited for an epistemic distinction if these endings mark whether or not the subject of the matrix clause is coreferent with the subject of the complement clause. The only prerequisite appears to be that the endings in question are consistently tied to one single epistemic perspective.

## 7. Conclusion

In this article, we have described a diachronic process in the course of which person agreement markers are functionally reanalyzed as epistemic markers in the context of reported speech constructions. We adduced evidence from three Tibeto-Burman languages that bear witness to different stages of the process and reconstructed the individual steps of the process by combining the methods of functional internal reconstruction and functional comparative reconstruction (Givón 2000, Croft 2003: 272–279). The data suggest that the prerequisite for the functional transformation is an innovation in the domain of reported speech, viz. the invariably direct construal of the predicate in reported speech complements in combination with an indirect construal of other deictically sensitive expressions, which gives rise to deictically mixed reported speech constructions. The areal distribution of deictically mixed reported speech in the greater Himalayan region suggests that such constructions may have originated in the Tibetan dialect continuum, where they arose as a consequence of egophoricity marking and subsequently spread to non-Tibetic languages through contact. In languages with person agreement systems, the consistently “direct” construal of the predicate gradually gives rise to an epistemization of person agreement in the course of which first and third person markers are reanalyzed as expressing privileged vs. non-privileged access, respectively, to the information conveyed in a proposition. The innovative epistemic markers may then be extended to simple declarative clauses and finally interrogative clauses. In the course of this process, the syntactic relation of the person subject is replaced with the epistemic relation of the assertor.

While we have only adduced evidence from three Tibeto-Burman languages, there is reason to believe that similar processes may be at work in other Tibeto-Burman subgroups. Ping (2014) and Daudey (2014) have described Pumi varieties that display egophoricity systems, although other Pumi varieties display verb agreement systems (see Daudey 2014: 84 for an overview). The egophoricity varieties may thus have arisen in the course of the same process that is documented in Bunan and Dolakha Newar. However, this hypothesis can only be verified by comparative studies of Pumi varieties.

Eventually, the question arises whether the diachronic process described in this article may have given rise to epistemic systems in other parts of the world, viz. in the Caucasus (Creissels 2008), South America (Dickinson 2002; Bergqvist 2012), or Papua-New Guinea (San Roque & Loughnane 2012). Only further investigations into the diachrony of egophoricity systems will allow us to clarify this question.

## Abbreviations

1	first person	GEN	genitive
2	second person	HON	honorific
3	person	INTR	intransitive
ALLO	allophoric	IPFV	imperfective
COMP	complementizer	NMLZ	nominalizer
COND	conditional	PART	participle
COP	copula	PFV	perfective
DAT	dative	PL	plural
EGO	egophoric	PRS	present tense
ERG	ergative	PST	past
EXPR	expressive vocabulary	Q	question
EXT	extension particle	SG	singular
FOC	focus	SUG	suggestive
FUT	future	TR	transitive

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