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Clause-typing and evidentiality in Ecuadorian Siona

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Chapter 2: The state of the art

2.1 Introduction

The goal of this chapter is to provide some background information on evidentiality and clause-typing that will allow us to better understand the synchronic and diachronic analysis of the expression of evidentiality in Ecuadorian Siona. This chapter contains definitions of the main concepts used in this dissertation and a discussion of the relevant literature.

Since this dissertation is an inquiry into the nature of evidentiality, this will be the first topic of this chapter. In section 2.2, I will provide a working definition of evidentiality and related notions that I use in this dissertation, and I will briefly discuss some relevant issues with respect to this concept in the literature. The aim of this section is to delineate my own position in the discussion on the nature of evidentiality.

The second topic of this chapter is the interaction between clause-typing and evidentiality. The interaction between these two concepts has not been the subject of extensive discussion in the literature. Scholars have observed interesting patterns of behavior of evidentials with respect to different clause types, but few have explained why evidentiality and clause types interact in many languages. In section 2.3, I will provide definitions of clause-typing and related concepts and in subsection 2.4, I will offer an overview of descriptions of interactions between evidentiality and clause types.

The previous topics are important for the synchronic analysis of the expression of evidentiality in Ecuadorian Siona. The third topic will facilitate the understanding of the diachronic analysis that I will tackle in chapter 8. In section 2.5, I will discuss the grammaticalization path of evidentiality in various languages of the world. This section will shed light on the common origins of grammatical evidentials.

The last topic of this chapter is a case study: I will describe the expression of evidentiality in Eastern Tukanoan languages as it is known from the literature in section 2.6. The purpose of this description is twofold. First of all, it will provide material for comparison of the expression of evidentiality in Eastern Tukanoan languages and Ecuadorian Siona. It will be shown that there are some commonalities with respect to this matter, but that there are also major differences. The second purpose of this case study is to set up the groundwork for the reconstruction of the origin of evidentiality marking and clause

types in Ecuadorian Siona. The diachronic analysis of the evidentials in Eastern Tukanoan languages will show reconstructed Proto-Eastern-Tukanoan evidential structures that are possibly related to the Proto-Siona evidential structures.

2.2. *Defining evidentiality*

The interest in the expression of evidentiality has grown during the last three decades. An increasing number of scholars from different frameworks are working on the topic. There are many works on evidentiality within the framework of descriptive linguistics and typology (Aikhenvald, 2004; Aikhenvald & Dixon, 2003; De Haan, 1999, 2001b; 2005 among others) and within formal frameworks such as generative grammar (Blain & Déchaine, 2007; Cinque, 1999; Rooryck, 2001a, 2001b; Speas, 2004; 2008 among others) and formal semantics (Davis, Potts, & Speas, 2007; Faller, 2002; Garrett, 2001; Matthewson et al., 2007; McCready & Ogata, 2007 among others).

The many conceptualizations of evidentiality reflect the different views on the topic. These conceptualizations often differ with respect to the relation between evidentiality and epistemic modality. Some scholars consider evidentiality to be part of (epistemic) modality while other scholars consider evidentiality and epistemic modality to be two separate categories (see for discussion Cornillie, 2009; Dendale & Tasmowski, 2001).

In this section, I introduce the concept of evidentiality and its boundaries as I understand them. In subsection 2.2.1, I present a working definition of the concept and I show how I apply this definition to different types of evidentials that are found in the world's languages. In subsection 2.2.2, I briefly address the discussion about the relation between evidentiality and epistemic modality. In subsection 2.2.3, I discuss how evidentiality can be expressed in the languages of the world.

2.2.1 Evidentiality and evidentials

Evidentiality is defined in this dissertation as the expression of the mode of access to the information presented by the utterance, following Michael (2008) and Gipper (2011).¹⁵ Evidentials are, within this

¹⁵ This is not the canonical way to define evidentiality. Many scholars define evidentiality as the marking of information source (See for instance Aikhenvald, 2003b, 2004; Bybee, 1985; De Haan, 1999; Willet, 1988). The 'mode of access' definition is, however, not a radical change from the 'information source'

definition, structures that express how the information transmitted was acquired. Different evidentials can express different types of access modes.

The different types of access modes have been classified in various ways. One typical classification is the distinction between direct evidentials and indirect evidentials. A direct evidential expresses that the speaker had direct access to the information: he/she witnessed the event or participated in it. This means that the speaker can have visual or any other type of sensory access to the information. Some evidentials are said to express general direct evidentiality. An example of a direct evidential is shown in the Mosetenan language Mosetén (Sakel, 2003, p. 267; glosses adapted to mine):

Mosetén

- (1) Mö-wë ishtyi' jady-i-ki-'-yaë.
 3F-DOWN.RIVER DIR go.and.come.back-VSM-DR-F.SBJ-1S
 'I went there (and came back).'¹⁶
- (2) Yaë se'w-e-' wa-ti aka'-khan.
 1S hear-VSM-3F.OBJ cry-VSM.SBJ house-IN
 Mi' ishtyi' käedäej nä'-i khin'.
 3M.S DIR baby get.born-VSM.SBJ now
 'I heard it cry in the house. The baby has been born now.'

The direct evidential *ishtyi'* is used in Mosetén when the speaker has direct access to the described event. In example (1), it is used in a context where the speaker participated in the event and therefore had direct access. In example (2), the speaker heard the baby cry and, therefore, had direct auditive access to the fact that the baby was born. Since this evidential includes different types of direct access to the event, it can be analyzed as a general direct access marker. A condition for this direct evidential analysis is that it cannot be used when the speaker does not have direct access to the information.

definition, but zooms in on the precise semantic relation between the utterance and the evidential marker.

¹⁶ It is not described by Sakel (2003, p. 267) whether the use of the evidential in combination with the first person has any specific effects in this context. 'First person effects' of evidentials have been described for many languages (see Aikhenvald, 2004, pp. 219-233 for an interesting overview of 'first person' effects).

Not all direct evidentials express general direct evidentiality. A further distinction that can be found within the direct evidential domain concerns the sensory mode of access. Some languages mark a distinction between visual and non-visual direct access. An example of such a language is Tariana, an Arawak language spoken in the Vaupés area. This distinction is illustrated in examples (3) and (4) (Aikhenvald, 2003a, pp. 134-135; glosses adapted to mine):

Tariana

- (3) Ceci tʃinu-nuku du-kwisa-ka.
 Cecília dog-TOP.N.A/S 3S.F-scold-REC.PST.VIS
 ‘Cecília scolded the dog.’ (I saw it).
- (4) Ceci tʃinu-nuku du-kwisa-mahka.
 Cecília dog-TOP.N.A/S 3S.F-scold-REC.PST.N.VIS
 ‘Cecília scolded the dog.’ (I heard it).

The sentences in examples (3) and (4) refer to the same event ‘Cecília scolding the dog,’ but they differ in the type of sensory access that the speaker had to the event. The speaker saw the event in example (3) and heard it in example (4), and therefore different verb forms are used. Both the Tariana visual and non-visual are examples of direct evidentials.

The opposite of direct evidentiality is indirect evidentiality. Speakers use indirect evidentials to convey that they did not have direct access to the information that they are divulging. Some languages have a general indirect evidential form, such as the Arawá language Jarawara (Dixon, 2003; Maslova, 2003), the Yukaghir languages (Maslova, 2003) and the West Caucasian language Abkhaz (Chirikba, 2003). However, many languages have indirect evidentials with a more restricted use. A typical restricted indirect evidential is an inferential evidential. When speakers use an inferential, they express that they did not have any direct access to the information, but they had access to the results of the described event or other evidence for the described information. The example from Tariana below illustrates the use of an inferential (Aikhenvald, 2004, p. 306; glosses adapted to mine):

Tariana

- (5) Valteir ite tʃinu nihwā-nihka di-na.
 Valteir POS+CLS:ANIM dog 3S.N.F+bite-REC.PST.INFR 3S.N.F-OBJ
 ‘Valteir’s dog bit him.’ (I infer it).

According to Aikhenvald (2004, p. 306), example (5) was uttered by a speaker who had only seen the result of the biting event that is described in the utterance: he only saw the imprint of the dog's teeth in the man's hand. So inferential evidentials are used to convey the meaning that speaker does not have direct access to the information itself, but she/he has personally observed evidence that justifies that information.

A second type of restricted indirect evidential is the assumed evidential. When speakers use this evidential they do not have direct access to the information; they assume that the expressed information is true based on reasoning. An example of an assumed evidential from Tariana is presented below (Aikhenvald, 2003a, p. 135; glosses adapted to mine):

Tariana

- (6) Ceci tʃinu-nuku du-kwisa-sika.
 Cecília dog-TOP.N.A/S 3S.F-scold-REC.PST.ASM
 'Cecília scolded the dog.' (I assumed).

The speaker in example (6) deduces that the dog was scolded based on the general knowledge of the behavior of dogs. The speaker does not have any hard evidence that the event happened.

A final type of restricted indirect evidential is the reportative. The reportative is a typologically common evidential in languages. Speakers use a reportative evidential when they lack any type of evidence, except for a report: someone told them about the information in the utterance. To illustrate this type of evidential I present an example from Cuzco Quechua below (Faller, 2002, p. 22):

Cuzco Quechua

- (7) Marya-qa yachay wasi-pi-s ka-sha-n.
 Marya-TOP know house-LOC-REP be-PRG-3
 'María is at school. (They say).'

The reportative suffix *-s(i)* in example (7) is used in order to mark that the speaker does not have direct access to María being at school; the speaker was informed by someone else about this information.

To summarize, the different types of evidentials are classified here as direct and indirect evidentials.¹⁷ Direct evidentials express a speaker's direct access to the uttered information. The examples of direct evidentials presented above include a general direct, a visual and a nonvisual evidential. Indirect evidentials express the fact that the speaker did not have direct access to the information expressed in the sentence. The indirect evidentials presented above include a general indirect evidential, an inferential, an assumed evidential, and a reportative. An overview of the interpretations of these different evidentials is presented in table 2.1:

¹⁷ There are many more subclassifications possible for the direct and indirect evidentials. For instance, Willet (1988, p. 57) groups the inferential and the assumed evidential together in opposition to the reported evidential, because the inferential and the assumed evidential are both based on speaker internal deduction and the reported evidential is based on external information. The inferential has been classified differently by some people. De Haan (2001a) observes that it behaves like an in-between category between direct evidentiality and the reportative, because the speaker has some personal evidence that the utterance is true. Plungian (2010, p. 37) draws the same conclusion for both the inferential and the assumed evidential. He classifies both evidentials with the feature indirect and personal. Direct evidentials such as the visual and the nonvisual are classified as direct and personal and the reportative is classified as indirect and non-personal. Other interesting classifications of evidentials are found in the literature (Barnes, 1984; Malone, 1988; Stenzel, 2008a). Because these classifications of evidential interpretations are not the focus of this dissertation, I will not discuss them in detail.

Table 2.1: An overview of various types of evidentials and their interpretation

Direct / Indirect	Type	Interpretation
Direct	General	The speaker has direct access (visual / nonvisual) to the information.
	Visual	The speaker has visual access to the information.
	Nonvisual	The speaker has nonvisual access to the information.
Indirect	General	The speaker has no direct access (inferential / assumed / reportative) to the information.
	Inferential	The speaker has acquired the information by means of deduction from traces.
	Assumed	The speaker has acquired the information by means of reasoning based on common knowledge.
	Reportative	The speaker has no access to the information her-/himself. She/he has acquired the information by means of a report.

2.2.2 Evidentiality and epistemic modality

Evidentiality and epistemic modality are often discussed together. This is understandable, because evidentials and epistemic modals are often used for similar reasons: speakers want to express their knowledge relation with respect to the information they are presenting. When speakers use an evidential, they want to express how they acquired the information that they are presenting. This expression of mode of access often involves the expression of the integration of the information in the speakers' knowledge. When speakers have direct access to the information, it is often more integrated in the speakers' knowledge than when they had, for instance, inferential or reported access to the information. Therefore, speakers may use these indirect evidentials in order to mitigate their responsibility for the information (see Aikhenvald, 2004, pp. 135-137; Clift, 2006; B. A. Fox, 2001; Michael, 2008 among others). When speakers do not have direct access to the information, they often do not want to (fully) commit themselves to the truth of a proposition.

Epistemic modals are used to convey a similar function. Epistemic modality is taken here to be the expression of the (lower) degree to which the speakers commit themselves to the truth of their statement, following scholars such as Bybee, Perkins & Pagliuca (1994), De Haan (1999, 2001b), Givón (1982), Palmer (2001) and Willet (1988). This means that when speakers opt for an epistemic modal, they reduce their commitment to the truth of the proposition. The speakers do not state that the proposition is true when they use epistemic modals; they state that the proposition is necessarily or possibly true, depending on the force of the modal.

Epistemic modals are used to express that the information is not fully integrated in the speakers' knowledge, just as evidentials are. When speakers state that information is possibly or necessarily true, they are not fully committing to the truth of the proposition; the information is not fully integrated in the speaker's knowledge.

Because evidentials and epistemic modals are used for similar functions in language, there has been a long and still ongoing debate on whether or not these concepts are in fact part of a single linguistic category. Scholars such as Aikhenvald (2003b, 2004), De Haan (1999, 2001b, 2005), DeLancey (DeLancey, 2001), and Lazard (1999, 2001) strongly oppose the view that evidentiality and epistemic modality constitute a single linguistic category. These scholars argue that evidentiality is a category that is separate from epistemic modality. The main argument behind this view is that evidentials do not necessarily express the speaker's lower degree of commitment to the truth of the proposition. In some languages, epistemic modality and evidentiality are expressed by different markers. Tariana seems to be such a language in which the evidentials express the manner in which the speaker acquired the information, while the doubt marker expresses the lower degree of commitment by the speaker to the proposition. The co-occurrence of these two types of makers is illustrated in the example below:

Tariana

- (8) weperi-pua-se di-a-thama-da.
 poison-CLS:RIVER-LOC 3S.N.F-say-FR+PRS.N.VIS-DUB
 'He must have said: "weperi-pua-se."' (But I am not sure that I
 heard it right). (Aikhenvald, 2003a, p. 152; glosses adapted to
 mine).

In example (8), the nonvisual portmanteau suffix *-thama* and the doubt suffix *-da* are used in the same sentence. The nonvisual portrays the

evidential meaning in the sentence: the speaker has nonvisual access. The doubt suffix portrays the epistemic modal function in the sentence: the speaker does not fully vouch for the fact that the other person said “weperi-pua-se.” This example suggests that evidentiality and epistemic modality are separate categories in Tariana.

Other scholars have argued that evidentiality and epistemic modality are two sides of the same coin. Some scholars such as Frajzyngier (1985, 1987) Palmer (1986) and Willet (1988) take evidentiality to be a type of epistemic modality. Others take evidentiality to be a broad cover term for various knowledge related concepts. For instance, Chafe and Nichols (1986, p. vii) define evidentials as devices that are used to express the speakers’ attitude toward the knowledge. This broad definition includes both the probability of its truth (epistemic modality in my definition) and the evidence type (part of evidentiality in my definition). Rooryck (2001a, 2001b) takes a similar approach to evidentiality.

In this dissertation, I take evidentiality and epistemic modality to be two different semantic fields (see also Michael, 2008). Since not all evidentials seem to express the speaker’s degree of commitment to the proposition, evidentiality needs to be interpreted as a separate linguistic concept. Therefore, I use the term evidentiality only to refer to the semantic field of ‘mode of access to the information’ and epistemic modality to refer to the semantic field of ‘the speakers’ degree of commitment to the truth of the proposition.’

Although I take a semantically narrow approach to evidentiality this does not mean that I do not consider that the two concepts have many similarities. As mentioned above, evidentials and epistemic modals are often used for similar reasons, such as the expression of the integration of the information in the speaker’s knowledge. Evidentials and epistemic modals do not only show similar functions in language, some evidentials show a formal and functional overlap with epistemic modals. That is, some evidential markers express both the mode of access to the information and the speakers’ degree of commitment to the truth of the proposition (see for instance Faller, 2002; Matthewson et al., 2007; McCready & Ogata, 2007; Peterson, 2010).

For example, the conjectural in Cuzco Quechua, *-chá*, contains both an evidential component and an epistemic modal component in its semantics. The use of this evidential and epistemic modal clitic is illustrated in the example below:

Cuzco Quechua

- (9) Mario-qa wasi-n-ta-chá llinphi-sha-n.
 Mario-TOP house-3-ACC-CNJ paint-PRG-3
 ‘Mario must/may be painting his house.’ (I conjecture). (Faller, 2002, p. 175; glosses and translation slightly adapted).

The conjectural *-chá* in example (9) is both an evidential and an epistemic modal. It is an evidential because the speaker does not have direct access to the fact that Mario is painting his house: she/he only conjectures this. It is an epistemic modal because the speaker only states that it is possibly or necessarily true that Mario is painting his house: she/he is not fully vouching for the truth of the information. This conjecture shows that there are hybrid forms that are both evidentials and epistemic modals, but this, as shown above, cannot be said for all evidentials and epistemic modals.

2.2.3 Evidentiality: a label for different phenomena

The definition of evidentiality used in this dissertation is a narrow semantic one: only devices that express what type of access the speakers have to the information expressed in their sentences are considered to be evidentials. Speakers’ attitudes towards the information and the degree of commitment to the truth of the proposition are not included in this definition as discussed above. These aspects are considered to be part of epistemic modality. This narrow approach to the semantics of evidentials is similar to Aikhenvald’s approach, which also excludes epistemic modal aspects (Aikhenvald, 2003b, 2004).

There is, however, one major difference between Aikhenvald’s approach to evidentiality (Aikhenvald, 2003b, 2004) and the one taken in this dissertation. I claim that evidentiality is not a linguistic category in its own right. Rather, evidential interpretations are parasitic on other linguistic categories including tense, aspect, modality, and illocutionary force¹⁸ / clause-typing.¹⁹ In my view, the fact that evidentiality is

¹⁸ The category ‘illocutionary force’ is discussed in this chapter in subsection 2.3.2.

¹⁹ Aikhenvald (2004, chapter 4) discusses the evidential interpretation of a non-evidential construction at great length and refers to them with the term ‘evidentiality strategy.’ Using her terminology, I claim that all evidentials can be viewed as ‘evidentiality strategies.’ Under this view, all evidential interpretations arise from other linguistic categories.

parasitic on many different morphosyntactic categories is an argument in favor of the idea that is not a linguistic category in its own right. Of course, in addition to the grammatical categories that can be used to express evidentiality, evidentiality can also be expressed by lexical means.²⁰

I will illustrate the parasitic nature of evidentiality by discussing how the evidential interpretation arises in the domains of tense/aspect and of modality. An example of a language that has a temporal operator expressing evidentiality is Cuzco Quechua (Faller, 2003, 2004). The tense suffix *-sqa* is used to express that a speaker does not have direct access to the information, as illustrated in the example below:

Cuzco Quechua

- (10) a. Para-sha-sqa.
rain-PRG-NX.PST
'It was raining.' (I am told/infer). (Faller, 2004, p. 46).
- b. Para-sha-rqa.
rain-PRG-PST
'It was raining.' (implied that the speaker saw it raining).
(Faller, 2004, p. 46).

Because of the use of the past tense marker *-sqa* in example (10b) it has to be concluded that the speaker did not have direct access to the event of raining. The past tense marker *-rqa* in example (10b) does not give rise to an indirect evidential interpretation. This tense does not have any evidential semantics: it is only implied that the speaker has direct access to the event. This direct access interpretation can be cancelled (Faller, 2003, 2004).

The evidential interpretation of *-sqa* is reached within the temporal domain. As described by Faller (2003, 2004), the past tense marker *-sqa* marks events that happen outside the speakers' perception field. One way to understand how temporal reference yields an evidential is to think of the past tense marker *-sqa* as a marker of the relation between situations. Three points in time can be distinguished, following Reichenbach (1947) in his classical approach:

²⁰ Lexical and grammatical means to express evidentiality often coexist in the same language. For instance, Squartini (2008) describes both lexical and grammatical evidentials in French and Italian. I will not go into this issue here.

1. The point at which the described situation takes place (Event Time).
2. The point at which the speaker finds out about the described event (Reference Time).
3. The point at which the utterance is made (Speech Time).

The temporal relations between these situations provide evidential readings.²¹ These situations can be applied to the evidential interpretation in example (10a) in the following way. The Event Time is the time during which it was raining. The Reference Time is, in this context, the moment that the speaker finds out that it rained, for instance, when he/she sees the wet streets or is informed by someone. The Speech Time corresponds to the moment that the speaker utters the sentence in (10a).

The Event Time, i.e. the raining, precedes the Speech Time, i.e. the speech act. This corresponds to the past tense reading. The Event Time also precedes the Reference Time, i.e. the moment the speaker realized that it rained. When a speaker infers that it has rained based on wet streets, the Event Time has already ended and the speaker only observes the results of the rain. When the speaker is informed by someone else about the raining, the speaker also finds out about the rain when it is already over and the actual rain can no longer be perceived except by its effects.

Cuzco Quechua, as described by Faller (2003, 2004) is not the only language with evidentials that operate within the temporal/aspectual domain. Other languages that are described to operate within this domain are Tibetan (Kalsang et al., in press), Korean (Chung, 2005, 2007; Lee, 2011) and Russian (Jakobson, 1971).²² However, even in a

²¹ Authors, such as Kalsang et al. (in press) and Jakobson (1971) have provided similar accounts of evidential interpretations. These authors all describe the evidential interpretations as falling out from the relation between various reference points in time. In his analysis of Russian verbal categories, Jakobson (1971) describes these as a narrated event (E^n), a speech event (E^s) and a narrated speech event (E^{ns}) referring to a reportative evidential.

²² Chung (2005, 2007), Faller (2003, 2004) Kalsang et al. (in press) and Lee (2011) all describe how evidential interpretations can emerge from temporal semantics. However, the authors differ in their fine-grained semantic analysis of this emergence. For instance, a difference between Chung (2005, 2007) and Faller (2003, 2004) on the one hand and Kalsang et al. (in press) and Lee (2011) on the other hand is that the former introduce a spatial dimension in their analysis and the latter opt for an analysis that is more strictly temporal. The

language such as Dutch, that has not developed a grammatical evidential that operates within the temporal / aspectual domain; the present perfect can be used in specific contexts to express indirect evidentiality. This is illustrated in the example below:

Dutch

- (11) a. Het is vannacht erg koud geweest,
 It is last.night very cold be.PP
 want de vijver is bevroren.
 since the pond is frozen.
 'It has been very cold last night, since the pond is frozen.'
- b. ?Het is vannacht erg koud geweest,
 It is last.night very cold be.PP
 ik heb me liggen rillen!
 I have me lie shiver
 'It has been very cold last night, I was shivering so much!'

The sentence *het is vannacht erg koud geweest*, as shown in example (11a) and (11b), mostly has an indirect evidential interpretation. Therefore, it is acceptable when it is used in combination with the evidence that the speaker has for it having been cold last night, as is shown in example (11a). It is, however, less acceptable, when the speaker had direct access to the cold her/himself, as shown in example (11b). This example from Dutch and the example from Cuzco Quechua show that evidential interpretations can come about within the temporal/aspectual domain of a language. These evidential interpretations, however, arise indirectly from the temporal/aspectual semantics of the verb.

Another domain within which evidential meanings can emerge is modality. Various authors (De Haan, 2001b; Matthewson et al., 2007; McCready & Ogata, 2007; Peterson, 2010; Von Stechow & Gillies, 2010) have shown that propositional modals can be used in various languages in order to express the speaker's access to the information. Some languages in which epistemic modals can be used to express evidentiality are the Germanic languages (De Haan, 2001b). The example below is from Dutch:

discussion of these interesting proposals is outside the scope of this dissertation.

Dutch

- (12) Het moet een goede film zijn.
 It must a good movie be
 'It must be a good movie.' or
 'It is said to be a good movie.' (De Haan, 2001b, p. 202).

The modal *moet* in example (12) is used to express that the speaker does not have direct access to the fact that the movie is good. The statement can either be based on a report (someone told the speaker that it is a good movie) or on inference (for instance, the speaker saw long lines in front of the movie theater).

The verb *moeten* is generally taken to be a modal verb that can be used deontically or epistemically. When speakers use it as an epistemic modal as in (12), they are less committed to the truth of the statement, than when they make a statement without an epistemic modal. The evidential interpretation arises from the fact that when speakers are not fully committed to the truth of the information, they probably do not have direct access to the information. Therefore, it can be understood that the speaker only has indirect access to the information. This shows that an evidential interpretation can arise within the modal domain as well.²³

Both the temporal and the modal domains can produce evidential interpretation, as shown in the examples above. Another domain in which evidential interpretation can appear is in the domain of illocutionary force/sentential force. Examples of languages that are analyzed as having illocutionary force or sentential force evidentials are Cuzco Quechua (Faller, 2002; Portner, 2006), Gitksan (Peterson, 2010) and Cheyenne (Murray, 2010). This is the type of evidential that is under discussion in this dissertation. The way in which this type of evidential obtains its evidential semantics will be discussed in section 2.4.

²³ There are different opinions on whether the epistemic modal verbs are semantically evidential. According to De Haan (2001b), the modal *moeten* 'must' in Dutch does not have a grammaticalized evidential meaning. Von Stechow and Gillies (2010) argue that the English epistemic modal verb *must* does have evidential semantics. Similar claims have been made for epistemic modals in non-Germanic languages, such as St'át'imcets (Matthewson, et al., 2007) and Gitksan (Peterson, 2010). The languages have, according to these authors, morphemes that are both evidential and epistemic modal. They represent the evidential semantics as the modal basis for the statement, i.e. the information on which the statement is based.

There are important morphosyntactic differences between the evidential interpretations that arise in the temporal, modal, and sentential force domains. In this dissertation, these differences in morphosyntactic behavior will be directly related to the fact that evidential interpretations operate within different morphosyntactic domains.²⁴ This means that if an evidential function is part of the tense/aspect system in a language, it operates most likely within the temporal/aspectual domain in the language. If an evidential is found in a modal system, as is the case of the evidential use of the Dutch modal *moeten*, the evidential meaning probably arises from a modal meaning. If an evidential forms one system with clause-typing elements, it probably operates within the sentential force/illocutionary domain. All these different types of evidentials, the temporal/aspectual, the modal and the sentential force/illocutionary force evidential, can be interpreted as ways to express the access mode of the information, even though the different evidentials reach their interpretation in different ways.

2.3 Clause types

The focus of this dissertation is the relation between evidentiality and clause-typing. After introducing the notion of evidentiality, I will now introduce the notion of ‘clause type.’ This section is structured as follows: I provide definitions of the term ‘clause type’ and related terms in subsection 2.3.1; I show how I differentiate the term ‘clause type’ from the term ‘speech act’ in subsection 2.3.2; and I discuss the role of the speech act participants in the different clause types, in subsection 2.3.3.

²⁴ A similar proposal was also presented by Blain & Déchaine (2006, 2007). These authors propose that evidentials can operate in the CP (illocutionary) domain, the IP (temporal) domain, the AspP (aspectual) domain, and the vP (predicate) domain. Blain & Déchaine (2007) show how the Algonquian language Plains Cree possesses some evidentials that operate within the CP domain and other evidentials that operate within the IP domain. Waldie (2012) shows that the Wakashan language in Nuuchah-nulth has some evidentials that operate within the CP domain, others within the IP domain and other within the VP domain. These distinct evidentials in both languages have distinct morphosyntactic behaviors.

2.3.1 Defining clause types

Languages code the function of a sentence in their morphosyntax. Typical functions of sentences are asserting, questioning, or requesting. The sentences that are morphosyntactically marked for these different functions are often referred to as ‘sentence types’ or ‘clause types’²⁵ (König & Siemund, 2007; Portner, 2009; Sadock & Zwicky, 1985). Languages have different morphosyntactic devices for marking the distinct clause types: they can use word order, particles and verbal inflection and intonation to mark the different clause types. Greenlandic Eskimo, for instance, marks the clause types on the verb:

Greenlandic Eskimo

- (13) a. lga-voq.
cook-3S.DCL
‘He cooks.’ (König & Siemund, 2007, p. 278).
b. lga-va?
cook-3S.INT
‘Does he cook?’ (König & Siemund, 2007, p. 279).
c. lga-git!
cook-2S.IMP
‘Cook!’ (König & Siemund, 2007, p. 279).

The Greenlandic Eskimo declarative portmanteau suffix *-voq* in (13a) marks both subject agreement (third person singular) and the clause type of the utterance (declarative). According to various authors (Chierchia & McConnell-Ginet, 1990; Portner, 2004, 2009) declarative clauses convey the meaning of assertion. This means that when speakers use a declarative form, they assert the information in the proposition: the speakers vouch for the truth of the information.²⁶

The interrogative suffix *-va* in (13b) is used to mark a third person singular subject for a question, but not for a statement. In example (13c), the speaker uses an imperative suffix in order to require of the addressee that she/he cooks. The morphosyntactic marking of distinct clause types is referred to as ‘clause-typing’ in this dissertation.

²⁵ Clause types or sentence types are distinct from speech acts. Although speech acts, similarly to clause types refer to a specific function of a sentence, there is a clear difference: while the clause type function is marked morphosyntactically, the speech act function is not. The latter function is understood pragmatically. This issue is discussed in more detail in subsection 2.3.2.

²⁶ In section 2.4, I will show that not all sentences that have been considered as declarative sentences are assertions.

Under this definition the suffixes *-voq*, *-va* and *-git* in Greenlandic Eskimo can be considered clause-typing markers.

The three clause types declarative, interrogative and imperative, as presented for Greenlandic Eskimo in example (13), are often considered to be the basic clause types that languages possess (König & Siemund, 2007; Lyons, 1977; Portner, 2009, pp. 262-263).²⁷ The semantic value of these three basic clause types (asserting in declarative clauses, asking in interrogative clauses and requiring in imperative clauses) is referred to as the sentential force of a clause (Chierchia & McConnell-Ginet, 1990; Portner, 2004, 2009).

Table 2.2: An overview of the major clause types and associated sentential force (adopted from Portner, 2009, p. 263).

<i>Clause Type</i>	<i>Sentential Force</i>
Declarative	Assertion
Interrogative	Asking
Imperative	Requiring

2.3.2 Clause types and speech acts as separate notions

The terms ‘clause type’ and ‘speech act’ should be carefully distinguished. Admittedly, both involve the function of a clause. However, despite this connection between the two concepts, they should be viewed as two distinct notions. The notion ‘speech act’ goes back to the speech act theory that was developed by Austin (1962) and Searle (Searle, 1976). This theory was developed in order to describe the constative and performative character that utterances can have. Speakers use utterances for different communicative functions. Searle (1976, pp. 10-16) presents the following taxonomy of speech acts:

1. Representatives: the speaker commits (to a varying degree) to truth of the proposition. This speech act type refers to the speaker’s beliefs. This speech act type includes action such as stating, concluding, deducing, boasting and complaining.

²⁷ Some other types that have been distinguished as minor clause types are exclamatives (Beyssade & Marandin, 2006; König & Siemund, 2007; Sadock & Zwicky, 1985; Zanuttini & Portner, 2003), imprecatives (curses), optatives (speaker’s wishes) (Sadock & Zwicky, 1985), echo questions and answers to questions (König & Siemund, 2007). The discussion of these less frequent clause types falls outside of the scope of this dissertation.

2. Directives: the speaker attempts to make the addressee to do something. This speech act type includes action such as ordering, requesting, asking and begging.
3. Commissives: the speaker commits her/himself to a future action. This speech act type includes action such as promising, proposing, vowing and consenting.
4. Expressives: the speaker expresses her/his attitude or emotion towards the proposition. This speech act type includes action such as thanking congratulating, condoling, apologizing and welcoming.
5. Declarations: the speaker changes the reality when she/he conducts the act successfully, that is, the proposition of the utterance becomes true. This speech act type includes action such as appointing, marrying, baptizing, firing and resigning.

There is evidently considerable overlap between the speech act types and the clause types. For instance, both the representative speech act and the declarative clause type involve the function of committing the speaker (to a certain degree) to the truth of the proposition. However, there is no one-on-one relation between speech act types and clause types. One indication of this is that questions and requirements are expressed by two distinctly marked clause types, while they represent a single speech act type, namely the directive type. The declarative clause type, by contrast, can be used for all speech act types, as illustrated in the example below:

- (14) a. I think that he will come tomorrow. (Representative).
 b. I would appreciate it if you could open the window.
 (Directive).
 c. I will help you tomorrow. (Commissive).
 d. I thank you for your help. (Expressive).
 e. I appoint you as the chairman of the committee.
 (Declaration).

Examples (14a-e) show the use of a declarative clause type in a representative, directive, commissive, expressive and declaration speech act. Example (14b) shows that although the interrogative and imperative clause types are commonly used to express directive speech acts, it is also possible to use a declarative clause to express this type of speech act.

These differences between the notions are an indication that clause types and speech acts need to be kept terminologically separate. While the notion of 'clause type' is a morphosyntactic category, the notion of 'speech act' is not. The latter notion refers to the communicative function of a sentence. This function is a pragmatic one, since it often arises from the context and is not marked by a single grammatical category. This pragmatic interpretation of an utterance is often referred to as the illocutionary force (Portner, 2004, 2009).²⁸ The differences between the clause types and speech acts are summarized in table 2.3:

Table 2.3: Differences between clause types and speech acts

Notion	Interpretative force	Morphosyntactic marking
Clause type	Sentential force	Yes
Speech act	Illocutionary force	No

2.3.3 The role of the speech act participants in clause types

The speech act participants play different roles in the distinct clause types. The difference between the role of the speaker and that of the addressee is crucial, especially with respect to the distinction between assertions and questions. Both assertions and questions are concerned with the transmission of knowledge. Speakers transmit knowledge when they assert something and addressees transmit knowledge when they ask a question. So there is an essential difference between these two clause types with respect to the person who holds the knowledge. This is illustrated in the example below:

- (15) a. Jaime is at home. (Assertion).
 b. Is Jaime at home? (Question).

²⁸ Portner (2004; 2009, pp. 262-263) shows that the sentential force and the illocutionary force of an utterance can be distinct, showing the following two examples:

- (i) I wonder if you can tell me the time. (Portner, 2009, p. 263).
 (ii) Would you please pass the salt? (Portner, 2004, p. 235).

In example (i), the sentential force of the utterance is asserting, but the illocutionary force is asking. In example (ii), the sentential force is asking, but the illocutionary force is requesting.

When a speaker utters the assertion in (15a), it is assumed that she/he knows that Jaime is at home and the addressee probably does not. When a speaker utters the question in (15b), she/he assumes that the addressee knows whether Jaime is at home and she/he probably does not know. This shows that there are different knowledge asymmetries in assertions and in questions. The asymmetry in assertions can be described in the following way: the speaker has information that addressee does not have. In questions, knowledge asymmetry is the other way around: the addressee has information that speaker does not have.

These asymmetries in assertions and questions are grammatically marked in some languages. This is what happens in egophoric systems.²⁹ An egophoric system is a system in which a marker is used for first person in declarative clauses and for second person in interrogative clauses.³⁰ An example of such a marker is the suffix *-s* in the Barbacoan language Awa Pit. This suffix is used to mark that the verb has a first person subject in assertions and a second person subject in questions, as illustrated in the examples below:

Awa Pit

Assertion

- (16) (na=na) pala ku-mtu-s.
 (1S.(NOM)=TOP) plantain eat-IMPF-EGO
 'I am eating plantains.' (Curnow, 2002, p. 613).

²⁹ These type of systems are also referred to as conjunct/disjunct systems (see for instance Curnow, 2002; DeLancey, 1992; Hale, 1980; Hargreaves, 2005). The term 'egophoric' was used by Tournadre (2008) to refer to the marker that was used for first person in assertions and second person in questions. DeLancey (2010) and San Roque, Floyd & Norcliffe (2012) used the term 'egophoric' system for a system that contains an egophoric marker.

³⁰ The egophoric suffixes in some languages refer to a first person subject in assertions and a second person subject in questions. However, in some languages, such as Newari and Tsafiki, the suffix does not (just) refer to a subject. In Newari, the egophoric suffix is only used when the first person in assertions and the second person in questions is a conscious voluntary instigator of the action (Hale, 1980). In Tsafiki, the egophoric marker *-yo*, referred to as 'congruent marker' is not only used for subjects, it is also used when the speaker in assertions and the addressee in questions are involved in the action (Dickinson, 2000, 2011). To illustrate this, the egophoric marker can also be used in utterances such as 'the smoke is going into my eyes' and 'is the smoke going into your eyes.'

Question

- (17) shi=ma ki-mtu-s?
 what=INT do-IMPF-EGO
 ‘What are you doing?’ (Curnow, 2002, p. 613).

The egophoric marker -s in Awa Pit is used with a first person subject in assertions, as shown in example (16) and it is used with a second person subject in questions, as shown in example (17).

When a verb has a second or third person subject in assertions, or a first or third person subject in questions the non-egophoric suffix -y is used in the language, as illustrated in the examples below:

Assertions

- (18) (nu=na) pala ku-mtu-y.
 (2S.(NOM)=TOP) plantain eat-IMPF-N.EGO
 ‘You are eating plantains.’ (Curnow, 2002, p. 613).

- (19) (us=na) atal ayna-mtu-y
 (3S.(NOM)=TOP) chicken cook-IMPF-N.EGO
 ‘He/she is cooking chicken.’ (Curnow, 2002, p. 613).

Questions

- (20) min=ta=ma ashap-tu-y?
 who-ACC=INT annoy-IMPF-N.EGO
 ‘Whom am I annoying?’ (Curnow, 2002, p. 613).

- (21) min=ta-s a-mtu-y?
 where=LOC-ABL come-IMPF-N.EGO
 ‘Where is he coming from?’ (Curnow, 2002, p. 614).

The egophoric marker in Awa Pit marks a second or third person subject in assertions, as shown in examples (18) and (19). The same marker is also used for first person and third person subjects in questions, as shown in examples (20) and (21).

The egophoric suffix corresponds to the person who holds the knowledge, the speaker (first person) in assertions and the addressee (second person) in questions. I will refer to the person who holds the knowledge as the epistemic authority, following Curnow (1997, pp. 209-

217; 2002) and Hargreaves (1990, 1991, 2005) among others.³¹ The epistemic authority is not only an important notion in egophoric systems. The difference in epistemic authority is one of the defining characteristics that separate assertions and questions in general. While both clause types are used for the transmission of knowledge, the epistemic authority is the speaker in assertions and the addressee in questions. In questions, the speaker only has the epistemically subordinate role of inquirer.

Imperative clauses lack an epistemic authority in, since this clause type does not involve the transmission of knowledge. Imperatives have a directive function and are used to make commands or requests. However, although the imperative lacks an epistemic authority, there is an authority involved in this clause type. That is to say, when speakers use an imperative clause, they take the authority to give orders. I refer to this type of authority as the deontic authority.^{32 33} This means that in both declarative and imperative clause, the speaker holds the authority. There is, however, a difference in the type of authority: the speaker holds the epistemic authority in declarative clauses and the deontic authority in imperative clauses.³⁴ An overview of the different types of authority is provided in table 2.4 below:

Table 2.4: Major clause types, types of authority, and their authority holder

Clause type	Type of authority	Authority holder
Declarative	Epistemic	Speaker
Interrogative	Epistemic	Addressee
Imperative	Deontic	Speaker

³¹ The person that holds the knowledge has also be referred to by terms such as knower (Bruil, 2012; Dickinson, 2011), origo (Garrett, 2001; Waldie, 2012), seat of knowledge (Speas & Tenny, 2003) and assertor (Creissels, 2008).

³² The term ‘deontic authority’ was already used by Bochenski (1974) in his book on the logic of authority. It has also recently been used in discourse analysis by Stevanovic & Peräkylä (2012). These authors use the term in a very similar way as I do here.

³³ Aikhenvald (2010, p. 4) refers to what I call the ‘deontic authority’ as the ‘commander.’

³⁴ See Beyssade & Maradin (2006) for another interesting approach to the different roles of speech act participants in the different clause types.

2.4 Interactions between evidentiality and clause types

Languages differ as to whether evidentials can occur in different clause types (Aikhenvald, 2004, p. 242). The use of evidentials in the different clause types has interesting semantic effects. In some cases, the sentential force of an utterance affects the interpretation of the evidential. In other cases, specific types of evidentials influence the sentential force. These interactional effects can be an indication of the domain within which the evidential operates.

Evidentials typically occur in declarative sentences. Some evidentials used in declarative clauses show interesting effects on the sentential force of the utterances. I discuss one of these effects in subsection 2.4.1. When languages have the possibility to use evidentials in non-declarative clauses, this use has other revealing effects. I describe some of these for interrogative clauses in subsection 2.4.2, and for imperative clauses in subsection 2.4.3. I provide an interim summary in 2.4.4.

2.4.1 Evidentials in declaratives

Evidentials are used by default in declarative clauses. Speakers use evidentials in these contexts in order to demonstrate how they obtained the information they are transmitting. There are to my knowledge no languages with evidentials that are deployed in interrogative or imperative clauses but not in declarative clauses. Since the declarative use of evidentials is their default use, there are no semantic effects on the interpretation of evidentials in declarative clauses; evidentials in the declarative show their default interpretation.

There are, on the other hand, evidentials that affect the sentential force of a declarative clause. Reportatives in the languages Cuzco Quechua and Cheyenne show this effect. When speakers make use of a reportative in these languages, they do not vouch for the truth of the information, they only present the information. Example (22) is from Cuzco Quechua and example (23) from Cheyenne:

Cuzco Quechua

- (22) pay-kuna-s ñoqa-man-qa qulqi-ta muntu-ntin-pi
 (s)he-PL-REP 1S-ILL-TOP money-ACC lot-INCL-LOC
 saqiy-wa-n mana-má riki riku-sqa-yki ni
 leave-1OBJ-3 NEG-SUPR right see-PP-2S.POS not
 un sol-ta centavo-ta-pis saqi-sha-wa-n-chu.
 one sol-ACC cent-ACC-ADD leave-PRG-1OBJ-3-NEG
 'They left me a lot of money, but, as you have seen, they didn't
 leave me one sol, not one cent.' (It is said/they said that they left
 me a lot of money). (Faller, 2002, p. 191).

Cheyenne

- (23) É-hó'tàheva-sèstse Floyd naa oha é-sáa-hó'taheva-he-Ø.
 3-win-REP.3S Floyd and CNTR 3-NEG-win-MOD-DIR
 'Floyd won, I hear, but I'm certain he didn't.' (Murray, 2010, p.
 58).

The Quechua sentence 'they left me a lot of money' in example (22) is marked with a reportative -s, so the speaker is conveying that people say that she was left with a lot of money. She does, however, not vouch for the truth of the proposition, since she knows that the proposition is false. The speaker is merely presenting what has been said in this case. A similar case can be made for the Cheyenne example in (23). The speaker is just conveying that it is said that Floyd won, but she / he knows Floyd did not. The speaker just presents reported information without vouching for it.

These examples show that when the reportative is used in declarative clauses in Cuzco Quechua and Cheyenne, the interpretation of the clause is modified. The clause does no longer carry the interpretation of asserting, it has weakened to a mere presentation of a proposition. The speaker does not vouch for the truth of the proposition.

This weakening of the force of the utterance by the reportative has been analyzed by Faller (2002) and Murray (2010) as an operation that takes place within the domain of illocutionary force. These authors analyze the act of asserting a proposition as a type of illocutionary force. Therefore, the weakening of the force of the utterance from assertion to presentation is a modification of the illocutionary force, under this view. In my view, however, weakening the force of the utterance is better analyzed as a modification of the sentential force of the clause. It is not simply a modification of its communicative function. Since this process is morphologically marked, and since it shows a semantic impact on the

clause rather a purely pragmatic one, the process seems to operate within the domain of sentential force.³⁵

The semantic effect of Quechua and Cheyenne reportatives on the declarative interpretation suggests that not all declarative clauses manifest the sentential force of assertion. Declarative clauses that contain reportative suffixes in these languages merely present the information in the proposition without a commitment on behalf of the speaker. That is why I make a difference between assertive clauses and reportative clauses. Assertive clauses have the sentential force of assertion, while reportative clauses have the sentential force of presentation.

These two clause types differ with respect to the assignment of epistemic authority. In assertive clauses, the speakers assign the epistemic authority to themselves. They know that the proposition is true. In reportative clauses, speakers do not assign the epistemic authority to themselves, but to a non-speech act participant. When speakers use a reportative, they state that a third person has claimed the proposition to be true. This shift in epistemic authority from the speaker to a non-speech act participant when a reportative is used is also observed by Mushin (2001, p. 34) and Nuckolls (2008) for various Quechua varieties.³⁶

Not all reportatives in the languages of the world modify the sentential force of a clause. For instance, the reportative in the Salish language St'át'imcets does not modify the sentential force of the clause, as illustrated in example (24):

³⁵ Portner (2006) and Peterson (2010) draw this same conclusion using the theory of dynamic semantics.

³⁶ Mushin (2001, p. 34) describes how 'origo' shift from the speaker to 'someone other than the current speaker.' This author uses the term 'origo' for what I refer to as 'epistemic authority.' Nuckolls (2008) provides a different description of the fact that a clause has a third person epistemic authority. This author shows how clauses with a 'direct evidential' show the perspective of 'the speaking self' and clauses with a reportative show the perspective of the other.

St'át'imcets

- (24) Context: You had done some work for a company and they said they put your pay, \$200, in your bank account. But actually, they didn't pay you at all.

#um'-en-tsal-itás	ku7	i	án'was-a
give-DR.TRS-1S.OBJ-3PL.ERG	REP	DET.PL	two-EXIS
xetspqíqen'kst táola,	t'u7	aoz	kw
hundred dollar	but	NEG	DET
s-7um'-en-tsal-itás	ku	stam'	
NOM-give-DR.TRS-1S.OBJ-3PL.ERG	DET	what	

'[reportedly] They gave me \$200, but they didn't give me anything.'

Corrected to:

tsút-wit kw	s-7um'-en-tsal-itás	ku7
say-3PL DET	NOM-give-DR.TRS-1S.OBJ-3PL.ERG	REP
i	án'was-a	xetspqíqen'kst táola...
DET.PL	two-EXIS	hundred dollar...

'They SAID they gave me \$200...' (Matthewson et al., 2007, p. 214).

The utterance 'they reportedly gave me \$200' in St'át'imcets, as shown in (24) is not felicitous when the speaker knows for a fact that she/he did not receive the money. This means that the speaker vouches at least for the possibility that the information represented in the proposition is true. According to Matthewson et al. (2007), this is an indication that the reportative *ku7* is a propositional modal. The evidential meaning of the reportative arises from the morpheme's modal base, in this approach.

To summarize this section, there seem to be some evidentials that can modify the sentential force in declarative clauses. Some reportative evidentials modify the sentential force by shifting the epistemic authority from the speaker to a non-speech act participant. The outcome of this shift is that the speaker does not vouch for the truth of the proposition, she/he only presents the information. This is an indication that this type of reportative is a sentential force modifier. Other evidentials, such as the reportative in St'át'imcets, do not modify the sentential force in this way. It may be an indication that evidentials do not operate within a sentential force domain, when they do not

modify the sentential force of a clause, as argued by Matthewson et al. (2007) and Peterson (2010).³⁷

2.4.2 Evidentials and interrogative clauses

There are several semantic effects that can be found when evidentials are used in questions. One of these effects is that the evidential does not refer to the speaker's mode of access to the information but to the mode of access that the addressee may have. This effect has been noted for evidential adverbs in English by Speas & Tenny (2003, p. 335) and an example is provided in (25):

- (25) a. Mary evidently knew the victim. (must be evident to SPEAKER)
 b. Who evidently knew the victim? (must be evident to HEARER)

The adverb *evidently* is used in declarative sentences, as shown in example (25a), when speakers have evidence for their claim. The adverb is used in interrogative sentences when the speaker believes that the addressee has evidence for the requested information.

The same effect is found for morphologically bound evidentials. For instance, the Nakh-Daghestanian language Chechen shows this effect as well, as illustrated in the examples below:

Chechen

- (26) Zaara-s suuna koch iic-i
 Zara-ERG1S.DAT dress.NOM take:PRF-DIR.REC.PST
 'Zara bought a dress for me.' (I saw it). (Molochieva, 2011, p. 219).

- (27) Zaara-s suuna koch ec-na xilla.
 Zara-ERG1S.DAT dress.NOM take:PRF-CVB.ANT be.PRF
 'Zara bought a dress for me.' (I didn't see it) (I have not seen this dress before). (Molochieva, 2011, pp. 219-220).

³⁷ Another evidential that is analyzed as a modifier of illocutionary force is the conjectural *-chá* in Cuzco Quechua. According to Faller (2002, 2007), the conjectural tones down the illocutionary force of assertion. The outcome is that an utterance with a conjectural only asserts the possibility that the embedded proposition is true.

- (28) naana-s ch'eepalg-ash d-i-r-i?
 mother-ERG cookie-PL-NOM(D) D-make:PRF-DIR.REM.PST-INT
 'Did (your) mother make some cookies? (The hearer saw this).
 (Molochieva, 2011, p. 228).
- (29) cuo ch'eepalg-ash d-i-na xill-i?
 3S.NOM cookie.PL-NOM(D) D-make:PRF-CVB.ANT be.PRF-INT
 'Did s/he make some cookies?' (The hearer did not see this).
 (Molochieva, 2011, p. 228).

The assertion in example (26) and the question in example (28) contain the direct evidential past tense.³⁸ The interpretation in assertions, as in (26), is that the speaker has direct access to the information. The interpretation in questions, as in example (28), is that the speaker assumes or knows that addressee has direct access. The assertion in (27) and the question in (29) contain a perfective converb and the perfective auxiliary verb *xilla* 'to be.' This periphrastic construction forms the indirect evidential past tense in Chechen (Molochieva, 2011, p. 219).

The effect of the use of this evidential in questions is the same as with the direct evidential past. When this past tense is used in assertions as in (27), it indicates that the speaker does not have direct access to the information. When it is used in questions as in example (29), the speaker assumes or knows that the addressee does not have direct access to the information. The examples from English and Chechen illustrate that the use of evidentials in questions in these languages have identical results. In both languages, evidentials express the access mode of the epistemic authority. In questions, the perspective shifts to the addressee. This shift shows that the clause type can modify the interpretation of evidentials.

The change of perspective has been described for evidentials that operate within different domains. It has been found with evidentials that are analyzed as propositional modal evidentials. Examples are found in St'át'imcets (Matthewson et al., 2007) and Gitksan (Peterson, 2010). Other types of evidentials also show this perspective change. For instance, the Cuzco Quechua and Cheyenne evidentials, which were analyzed as illocutionary evidentials, also refer to the addressee's access to the information when they are used in interrogative clauses (Faller, 2002; Murray, 2010). Because this

³⁸ The witnessed past in Molochieva's (2011) terminology. This author deploys the term 'unwitnessed past' to, what I refer to as the indirect evidential past tense.

perspective change occurs with different types of evidentials, it cannot be used as a basis for establishing domains within which the evidentials operate, as Matthewson et al. (2007) argue.

A different effect is found in Cuzco Quechua when evidential clitics are used in content questions. Questions with evidential clitics are ambiguous. One interpretation is the same as in English and Chechen. The perspective in questions shifts from the speaker to the addressee; the evidential expresses the access that the speaker expects the addressee to have. The second interpretation is illustrated in the example below:

Cuzco Quechua

- (30) a. Faller to consultant's mother-in-law (who is hard of hearing):
 Imayna-n ka-sha-nki?
 how-BPG be-PRG-2S
 'How are you?' (Faller, 2007, p. 11).
 b. Consultant to mother-in-law:
 Imayna-s ka-sha-nki.
 how-REP be-PRG-2S
 'How are you?' (She says). (Faller, 2007, p. 11).

In example (30b), it is shown that the reportative -s can be used in content questions in Cuzco Quechua in order to mark that the speaker is asking a question on behalf of someone else. The consultant asked this question on behalf of Martina Faller in this example. This shows that there is a perspective shift in this interpretation. This time it is not the epistemic authority that shifts, as in the case of the reportative that is used in declarative sentences. The epistemic authority is still the addressee in this question. By contrast, the role of the inquirer shifts from the speaker to a non-speech act participant. Interestingly, although the epistemic authority does not shift, the reportative is used to shift the speaker's role to a non-speech act participant, as in the case of the use of the reportative in declarative clauses.³⁹

³⁹ A third effect of the use of evidentials in questions is that the evidential can refer to the speaker's access to presupposed knowledge in the sentence (see for interesting examples Aikhenvald, 2004, p. 244; Maslova, 2003; McLendon, 2003). A fourth effect is that the use of certain evidentials can take away the interrogative force of a question. For instance, when the Gitksan inferential =*ima* is used in questions, the sentential force changes from a question to a statement of the 'I wonder' type (Peterson, 2010, pp. 146-147).

Evidentials are often used, as shown in the previous subsections, to convey the way in which the epistemic authority obtained the transmitted knowledge. Imperative clauses are directive in nature. They do not have the purpose of transmitting knowledge and therefore do not have an epistemic authority. Therefore, it is unexpected that any evidentials can be used in imperative clauses, but nevertheless some evidentials are indeed found in these contexts, as Aikhenvald (2004, pp. 250-253; 2010, pp. 138-141; 2012, pp. 266-267) shows. The evidential that is most commonly found in imperative clauses is the reportative. An example of the use of the reportative in an imperative clause presented below is from the Panoan language Shipibo-Konibo:

(31) Onpax-ki be-wé!
 Contained.water:ABS-REP bring-IMP
 '[S/he says that you must] bring water!' (Valenzuela, 2003, p. 42).

The effect of the use of the reportative is that this utterance expresses an order that was made on behalf of someone else. This suggests that the deontic authority is not the speaker anymore, but that it has shifted to a non-speech act participant. This is similar to the effect that is found with the use of the reportative in declarative clauses. The difference is that it is the epistemic authority that shifts in declarative

⁴⁰ For my analysis of the ‘secondhand imperatives’ in Eastern Tukanoan languages see subsection 2.6.2.

clauses and the deontic authority in imperative clauses, but in both cases they shift to a non-speech act participant.

Since clause-typing concerns the marking of the deontic authority, the above presented use of the reportative in Shipibo-Konibo suggests that the reportative can operate at the clause type level. To be more explicit, the shifting function of the deontic modality that the reportative fulfills in imperatives, as in example (31), seems to be a clause-typing function.⁴¹

2.4.4 Evidentials clause types or evidential clause type modifiers?

In the previous subsections it was shown that the semantics of clause types and evidentials interact. In some cases the semantics of the clause type can modify the semantics of the evidentials. This is what happens when evidentials are used in questions in some languages, such as English and Chechen. The evidential refers to the assumed or known mode of access of the addressee and not of the speaker. This shift is due to a shift of the epistemic authority.

In other languages, the semantics of the clause type, the sentential force, is modified by the evidential semantics. It was shown that the reportative in various languages can modify the sentential force of an utterance. The function of a sentential force modifying reportative is that it shifts the epistemic authority of the speaker to a non-speech act participant. In declarative clauses with this type of reportative, a non-speech act participant becomes the epistemic authority, in interrogative clauses, a non-speech act participant becomes the inquirer and in imperative clauses, a non-speech act participant is the deontic authority. An overview of the shifted roles for the three major clause types is presented in table 2.5 below:

Table 2.5: Clause types and the corresponding role that shifts from speaker to non-speech act participant

Clause type	Shifted role
Declarative	Epistemic authority
Interrogative	Inquirer
Imperative	Deontic authority

⁴¹ See for more interesting uses of evidentials in imperative clauses Aikhenvald (2004).

The impact of the role shift from speaker to non-speech act participant is most drastic in declarative utterances. When a reportative modifies the roles in interrogative clauses, i.e. the inquirer, and in imperative clauses, i.e. the deontic authority, the clause preserves the sentential force of, respectively, asking and requiring. The only change in these clauses is that the source of the question and the source of the order changes; it is no longer the speaker, but a non-speech act participant.

By contrast, declarative clauses do not maintain their sentential force of asserting. When a reportative is used as a sentential force modifier in a declarative clause, the speaker does not assert the information. She / he does not take responsibility over the information and she / he shifts the epistemic authority to a non-speech act participant. Because of this shift, the sentential force of a declarative clause with a reportative changed from an assertion in which the speaker takes responsibility for the information to a mere presentation in which the speaker takes no such responsibility. Therefore, a distinction needs to be established between assertive declarative clauses that have *assertion* as their sentential force and reportative declarative clauses that have *presentation* as their sentential force.⁴² The table 2.6 below is a modification of the overview of the major clause types and their associated sentential force shown above in table 2.2, including the assertive and reportative declarative clause types:

Table 2.6: An overview of the major clause types and associated sentential force

Clause Type		Sentential Force
Declarative	Assertive	Assertion
	Reportative	Presentation
Interrogative		Asking
Imperative		Requiring

2.5 Historical sources for evidentials

The expression of evidentiality differs from language to language, as discussed above. The languages of the world display an enormous diversity in the semantic and grammatical structures that can express

⁴² Declés & Guentchéva (2000) and Guentchéva (2011) also make a distinction between assertive clauses in which the speaker affirms that the provided information is true and non-assertive clauses in which the speaker does not do this.

evidentiality. Not only do the semantics and morphosyntax of these evidentials vary tremendously, there also is an extraordinary variety in the historical origins of grammatical evidentials. Evidentials in many languages show some transparency with respect to their origin. There are often similarities in form between an evidential and some other element in the language. These elements can stem both from the verbal and nominal domain. That is, various evidentials originate, for instance, from verbs, demonstratives and nouns (see Aikhenvald, 2004, chapter 9; 2011).

In this section, I introduce various types of origins of evidentials within the verbal domain. I discuss evidentials that have developed from a temporal or aspectual element in subsection 2.5.1; evidentials that have developed from a lexical or auxiliary verb in subsection 2.5.2; and evidentials that have developed from a subordinate verb construction in 2.5.3. In section 2.5.4, I will summarize this section.

2.5.1 Tense / aspect as an evidential

Many languages have evidentials that have developed from temporal or aspectual elements (Aikhenvald, 2004, p. 279; 2011, p. 611; Bybee et al., 1994, pp. 95-97). The most common reanalysis is that the past tense or perfective aspect becomes grammaticalized as an indirect evidential, often an inferential or a general indirect evidential. An example that illustrates this development is the Cuzco Quechua indirect evidential marker *-sqa*, which was introduced in section 2.2.3. This tense suffix marks that the described situation took place in the past and that the speaker did not have direct access to the situation. The origin of this evidential tense is the perfective marker **-sqa*, which is still found as a perfective nominalizer in the language (Cerrón-Palomino, 1987, pp. 212-213). Similar developments have been described for languages all over the world, such as the Balkan languages (Friedman, 1986, 2003), Tajik (Lazard, 2001), Turkish (Aksu-Koç & Slobin, 1986), Finno-Ugric languages such as Komi, Mari and Northern Khanty (Aikhenvald, 2004, p. 287; Johanson, 2003; Nikolaeva, 1999), the Tupi-Guarani languages (Seki, 2000, p. 344) and the Algonquian language Cree / Montagnais / Naskapi (James, Clarke, & MacKenzie, 2001).

Past tense and perfective aspect morphemes generally do not express the access mode to the information. Therefore, the question arises how these morphemes obtain an evidential interpretation over time. In order to answer this question, it is necessary to discuss the fine grained semantics of a perfective aspect marker. Following Reichenbach

(1947), the perfective is analyzed in this dissertation as the relation between situations. These situations include the Event Time, the Reference Time and the Speech Time, as introduced in subsection 2.3.3. In the case of the perfective, the Event Time, i.e. the moment at which the described event took place, has ended before the Reference Time. The Reference Time is a moment in time that is taken as a reference point in this analysis.⁴³ This reference point is often context specific. The relation between the Speech Time and the other two points in time is generally not crucial for the interpretation of a perfective marker.

The fine grained semantics of perfective markers is not very different from the fine grained semantics of temporal / aspectual evidentials. These evidentials often mark events that occurred before the Reference Time. However, in contrast with the case of the perfective markers the Reference Time is not a point in time that can be derived from the context. In the case of the evidentials, the Reference Time refers to a more specific moment in time: the moment that the speaker found out about the event. The speaker only has access to the event after it took place.

The main change that occurs during the grammaticalization of a temporal/aspectual evidential that derives from a perfective marker is that the Reference Time starts to be the moment during which the speaker had access to the described event. There is no change in the temporal relation between the Event Time and the Reference Time. In the case of both the perfective and the evidential the Event Time occurs before the Reference Time.⁴⁴

⁴³ Mostly the Reference Time occurs before the Speech Time in languages. However, that is a language specific feature.

⁴⁴ It seems that this temporal relation may change in the case of some temporal / aspectual evidentials. An example of a language with an temporal/aspectual evidential that has this type of interpretation is Ecuadorian Spanish, as illustrated below:

(iii) Él ha sido muy famoso.
 he has been very famous
 ‘He turns out to be very famous.’

In example (iii), the Event Time has not ended before the Reference Time. The event of the man being famous has started before the speaker found out, but it has not ended before the speaker found out. In this case the evidential expresses that the speaker only recently became aware of him being famous, while he has been famous for some time. This type of interpretation is often found with stative verbs. In the case of stative verbs, the evidential often

2.5.2 Clause union

Another common origin for evidentials is a matrix verb developing into an evidential affix. Possible sources for evidentials are perception verbs, speech verbs and existential or locative verbs (Aikhenvald, 2004, pp. 271-275). The evidentials that develop from verbs of perception can give rise to various types of evidentials. For instance, the Yuman language Maricopa has a visual evidential *-yuu* that probably evolved from the verb *yuu* 'to see' in combination with the first person prefix *'* (Gordon, 1986, pp. 83-84). Another example is the Tariana nonvisual evidential suffix *-mha* that seems to have originated from the verb *hima* 'to hear, to feel, to seem, to perceive' (Aikhenvald, 2003a, p. 159; 2004, p. 273; 2011, p. 607).

It is common as well for evidentials to arise from verbs expressing speech. This type of verbs often generates quotative or reportative evidentials (Aikhenvald, 2004, pp. 271-273; 2011, p. 607). An example of an evidential that probably originated from a speech verb is the evidential clitic *-ronki* that is found in the Panoan language Shipibo-Konibo. This evidential seems to have developed from the declarative marker **-ra* and the speech verb **onki*, which is still used in the form of *onke* in the related language Matsigenka meaning 'to speak' (Valenzuela, 2003). Other examples of speech verbs that developed into reportative or quotative evidentials are found in the Wakashan language Makah (Jacobsen, 1986, p. 17), the Southern Wintuan language Patwin (Whistler, 1986, p. 65), the Northeast Caucasian language Lezgian (Haspelmath, 1993, p. 148) and the West Caucasian language Abkhaz (Chirikba, 2003, pp. 258-259).

A final example of a type of verb that gives rise to evidential morphemes is the verb category of existential or locative verbs. The evidentials that originate from this type of verbs are generally indirect evidentials. For instance, the inferential *=sud* in the Nadahup language Hup has developed from the verb root *sud-* 'to be located inside something else' (Epps, 2005, p. 633). Another example can be found in Patwin (Whistler, 1986, pp. 69-71), in which the verb *-be / -bo* 'to be' in combination with the definite future marker *-ti*, is used as a general indirect evidential. The inferential *-ʔel* in the Northern Wintuan language Wintu and the evidential *-nok* in the Tibeto-Burman language

expresses that the state has started before the Reference Time. Nothing is said about the end point of the states. This suggests that there are some interesting interactions between the actionsart of a verb and the interpretation of the evidential.

Sherpa⁴⁵ have also evolved from existential verbs (De Haan, 1998; Schlichter, 1986, pp. 52-54; Willet, 1988, pp. 82-83; Woodbury, 1986, p. 192).

When a verb develops into an evidential, it is often not the verb by itself that becomes an evidential particle, clitic or affix. In many cases, the evidential historically from develops a reduced form of the verb in combination with other grammatical elements, such as a subject agreement marker, a pronoun or a complementizer, as suggested by Harris & Campbell (1995, p. 171) for quotative evidentials. The Spanish particle *dizque* that is frequently used in various Latin American dialects of Spanish consists of a third person form *dice* of the verb 'to say' and the complementizer *que*. This particle is used to express reportative evidentiality (see for instance Olbertz, 2005; Olbertz, 2007).

The grammaticalized verb forms are mostly remnants of a full main clause that has been reduced to an evidential morpheme. Clauses with this type of evidential started off as being two clauses: one clause expressing the information that the speaker wants to transmit and another one expressing mostly the mode of access that the speaker has for the information.⁴⁶ The process in which two clauses become one complex clause was named 'clause union' by Givón (see for instance 2009a, pp. 61-63). The process of clause union seems to be a common source for evidential morphemes in languages all over the world, as shown above.

2.5.3 Insubordination

Insubordination is another process that can produce evidentials. When evidentials emerge as a result of this process, they develop out of subordinate clause constructions. The subordinate clause is first used in combination with a main clause. During a second stage it is possible to delete the main clause and the subordinate structure is used as a main clause. Then the subordinate structure obtains a specific interpretation. Finally, the main clause use of this subordinate structure with its specific interpretation is conventionalized. Evans (2007) identified this

⁴⁵ The evidential *-nok* is used as an experiential (direct) evidential in the habitual and as an inferential in the future and the past tense (Woodbury, 1986, p. 190).

⁴⁶ In the case of evidentials that developed out of existential verbs, the existential verb clause expressed the access to the information only indirectly. Before the existential verb became an evidential morpheme, it probably functioned in combination with other elements as an evidential construction.

process in various languages in the world and called both this process and its result ‘insubordination.’⁴⁷ It is a strategy in language to develop new grammatical marking not only for evidentials, but also, for instance, for warnings, requests and exclamations (Evans, 2007, pp. 392-394, 403-405).

An example of an insubordinate clause that is used as an evidential is an indirect evidential construction in the Cariban language Trio as shown by Carlin (2011). The *tĩ-verb-se* construction is a non-finite verb construction that is used to express that a speaker does not have direct access to the information. This indirect evidential construction and its direct evidential counterpart are illustrated in the examples below:

Trio

- (32) J-eemi-ton Ø-are-ne mekoro
 1POSS-daughter-PL 3→3-take-N.REC.PST Maroon
 ‘The Maroon took (carried off) my daughters.’ (I was there and I saw it). (Carlin, 2011, p. 8).

- (33) J-eemi-ton t-ëpë-se pananakiri-ja
 1POS-daughter-PL *tĩ*-take-N.FIN white.people-GOAL
 ‘The white people (also: townspeople) took (grabbed) my daughters.’ (I was not there).’ (Carlin, 2011, p. 8).

Example (32) shows a Trio utterance with a finite verb. The verb has a subject-object marking prefix, which is here a zero marker, and a tense suffix *-ne*, which marks non recent past tense. Example (33) shows the nonfinite verb *tëpëse* ‘took’ that is used in this construction as the main verb in a main clause. This verb form could historically not be used this way; it used to have a nominal status and was used in subordinate clauses. The prefix *tĩ-* is a semantically bleached coreferential third person possessive prefix; it has lost its referential function. The suffix *-se* marks the verb as nonfinite.

The historically subordinate *tĩ-verb-se* construction became a main clause verbal construction because of the ellipsis of the main clause. This main clause consisted of a finite form of the verb ‘to be.’ Evidence for this origin of the indirect evidential construction in Trio is still found in the speech of elderly people. These speakers do not always elide the verb ‘to be,’ as illustrated in the example below:

⁴⁷ Aikhenvald (2011, p. 611) called this type of development ‘desubordination.’

- (34) mēe_rē t-ēta-e⁴⁸ n-a-Ø-i i-ja.
 3PRO.ANIM.PRX_ASS tī-hear-N.FIN 3→3.1TR-be-PRS-N.CRT 3-GOAL
 ‘He heard him.’ (I did not witness it). (Carlin, 2011, p. 10; pers. comm.).

The *tī-verb-se* construction is used in combination with the verb *nai* ‘is’ in example (34). The use of the verb ‘to be’ in this indirect evidential construction is very rare nowadays. Only some elderly people make use of it sometimes. The main clause use of the nonfinite verb construction in order to mark indirect evidentiality is conventionalized especially among younger Trio speakers (Carlin, pers. com.).

The process of insubordination, as shown for the Trio indirect evidential construction, is not unlike the process of clause union. Both processes refer to the change from a biclausal to a monoclausal construction. The main difference is that in the case of clause union some phonological material of the main clause is still present, while in the case of insubordination the main clause has been deleted completely.

2.5.4 Difference in origin leading to difference in semantic structure?

Evidentials can have various origins within the verbal domain, as shown above. It is likely that these various origins may generate different outcomes with respect to the type of evidential interpretation. The origin of an evidential and its path of grammaticalization probably determines within which domain the evidential interpretation arises. Specifically, when a temporal or aspectual marker develops into an evidential, it is plausible that it keeps on functioning within that temporal/aspectual domain and that the evidential interpretation derives from its temporal/aspectual semantics.

A possible example of an evidential that has emerged from an aspectual marker and that still operates within the temporal/aspectual domain is the indirect evidential past marker *-sqa* in Cuzco Quechua. This suffix stems from a perfective marker, as discussed in subsection 2.5.1, and its evidential interpretation emerges from its aspectual semantics, as discussed in subsection 2.2.3. It is not inconceivable that there is a causal relation between these two properties of the indirect evidential past marker *-sqa*. Because its evidential interpretation developed historically from its aspectual semantics, it is still part of the

⁴⁸ The suffix *-e* is one of the allomorphs of the nonfinite suffix *-se*.

tense/aspect system in the language and its evidential semantics can be analyzed in temporal/aspectual terms.

Some evidentials with a distinct origin seem to obtain their evidential interpretation in a different way. For instance, the reportative second position clitic *-ronki* in Shipibo-Konibo, as discussed in 2.5.2, has probably developed from a combination of a declarative clitic and a speech verb. This clitic has a very distinct morphosyntactic behavior from the evidential past marker *-sqa* in Cuzco Quechua. It operates within a system of second position clitics that also contains the clause-typing clitic *-ki* that is used to mark interrogative clauses (Valenzuela, 2003, p. 40). Since in some languages reportative evidentials seem to function as clause type modifiers, it is possible that the Shipibo-Konibo reportative clitic *-ronki* operates within the domain of clause-typing.

The Cuzco Quechua evidential past *-sqa* and the Shipibo-Konibo reportative clitic *-ronki* have very distinct development paths and the morphemes seem to operate in very different morphosyntactic and semantic domains. It is possible that there is a correlation between the development process of an evidential and the morphosyntactic and semantic domain within which it operates. It seems that the system in which evidentials operate can be better understood if we reconstruct the path of grammaticalization. A better understanding of the different behaviors of evidentials in languages can profit from the analysis of the differences in the grammaticalization path of these evidentials.

2.6 The expression of evidentiality in Eastern Tukanoan languages, a case study

Eastern Tukanoan languages are well-known for their interesting evidential systems. In various typological studies, Eastern Tukanoan languages are mentioned with respect to evidentiality (Aikhenvald, 2004; Bybee et al., 1994, pp. 95-97; De Haan, 1998, 1999, 2001a, 2005; Desclés & Guentchéva, 2000, p. 90; Willet, 1988, pp. 72-73). All the described languages of this branch of the family have morphosyntactic strategies to express different types of evidentiality, and some of the better known languages, such as Barasana, Tatuyo, Tukano and Tuyuka, have complex evidential systems (Aikhenvald, 2002, 2003a, 2004; Barnes, 1984; B. A. Fox, 2001; Malone, 1988; Michael, 2008, p. 61; Ramirez, 1997). In most of the languages evidentiality can be expressed in both declarative and interrogative clauses. This is discussed in subsection 2.6.1. The relation between evidentiality and the communicative function of giving orders is discussed in subsection 2.6.2.

2.6.1 Evidentiality in declarative and interrogative clauses

There are similarities between the expression of evidentiality in declarative and interrogative clauses in most Eastern Tukanoan languages, but the evidential markers are not identical in the two clause types. The similarities and differences between the evidential markers in the clause types can be explained historically. I introduce the expression of evidentiality first in declarative clauses (2.6.1.1) and then in interrogative clauses (2.6.1.2). I conclude this subsection with a discussion on the origin of the evidential marking in Eastern Tukanoan languages (2.6.1.3).

2.6.1.1 Evidentiality in declarative clauses

Most Eastern Tukanoan languages have complex evidential systems including between four and five markers that all express evidentiality. Tukano expresses four types of evidentiality is, as illustrated in the examples below:

Tukano

- (35) a. diâyi wa'î-re yaha-ámi.
 dog fish-TOP.N.S/A steal-REC.PST.VIS.3S.N.F
 'The dog stole the fish.' (I saw it). (Aikhenvald, 2004, p. 52).
- b. diâyi wa'î-re yaha-ásĩ.
 dog fish-TOP.N.S/A steal-REC.PST.N.VIS.3S.N.F
 'The dog stole the fish.' (I heard the noise).
 (Aikhenvald, 2004, p. 52).
- c. diâyi wa'î-re yaha-ápĩ
 dog fish-TOP.N.S/A steal-REC.PST.INFR.3S.N.F
 'The dog stole the fish.' (I inferred it). (Aikhenvald, 2004, p. 52).
- d. diâyi wa'î-re yaha-ápĩ'
 dog fish-TOP.N.S/A steal-REC.PST.REP.3S.N.F
 'The dog stole the fish.' (I have learnt it from someone else). (Aikhenvald, 2004, p. 52).

Examples (35a-d) show that Tukano can express visual (35a), nonvisual (35b), inferential (35c) and reportative evidentiality (35d) in declarative clauses. An example of a language that can express five types of evidentials in declarative clauses is Tuyuka. These types are illustrated in the examples below:

Tuyuka

- (36) a. *díga* *apé-wi*.
 He play-3S.M.PST.VIS
 ‘He played soccer.’ (I saw him play). (Barnes, 1984, p. 257).
- b. *díga* *apé-ti*
 He play-3S.M.PST.N.VIS
 ‘He played soccer.’ (I heard the game and I heard him). (Barnes, 1984, p. 257).
- c. *díga* *apé-yi*
 He play-3S.M.PST.INFR
 ‘He played soccer.’ (I have evidence that he played: his distinctive shoe print on the playing field. But I did not see him play). (Barnes, 1984, p. 257).
- d. *díga* *apé-yigì*
 He play-3S.M.PST.REP
 ‘He played soccer.’ (I obtained the information from someone else). (Barnes, 1984, p. 257).
- e. *díga* *apé-hīyi*.
 He play-3S.M.PST.ASM
 ‘He played soccer.’ (It is reasonable to assume that he did). (Barnes, 1984, p. 257).

Example (36a-e) shows that Tuyuka expresses one additional type of evidentiality as compared with Tukano. This additional evidential category in Tuyuka is ‘assumed evidentiality’ as in (36e). Most of the other Eastern Tukanoan languages show similar systems with four or five types of evidential markers in declarative clauses.⁴⁹

⁴⁹ Examples of languages that express four types of evidentiality are, for instance, Kubeo (Chacón, 2012, pp. 269-274, 278-293; Morse & Maxwell, 1999, pp. 32-38) and Makuna (Smothermon, Smothermon, & Frank, 1995, pp. 46-56). The difference between the systems in these languages and the system in Tuyuka that shows five types of evidentials is that the Kubeo and Makuna system do not distinguish visual and nonvisual evidentials. These two languages have one general direct evidential. Examples of languages with five types are Karapana (Metzger, 2000, pp. 151-155), Siriano (Criswell & Brandrup, 2000, p. 400), Tatuyo (Gomez-Imbert, 2007a), Wanano (Stenzel, 2008a) and Yurutí (Kinch & Kinch, 2000, p. 479). Tatuyo does not have an assumed evidential. Its fifth evidential suffix is a marker for information that has been witnessed from a distance (B. A. Fox, 2001; Gomez-Imbert, 2003, p. 122; 2007a, pp. 70-71). Desano is described as a language that expresses even six types of evidentiality. This language portrays the same evidential categories as Tuyuka,

The evidentials in most of the Eastern Tukanoan languages show some interaction with tense and subject agreement marking. For instance, in Tukano and Tuyuka the evidential marking seems to have fused with tense and subject agreement marking. These categories are marked by portmanteau morphemes as shown in the examples above. Therefore, the languages have a complex subject agreement system consisting of various subject agreement paradigms for present and past and every evidential meaning. For instance, Tuyuka has 35 subject agreement suffixes divided in 9 agreement paradigms, illustrated in table 2.7:

Table 2.7: Subject agreement paradigms in Tuyuka as presented by Barnes (1984, p. 258) and Malone (1988, p. 120).

		Visual	Nonvisual	Inferential	Reportative	Assumed
Past	N.3	-wɨ	-tɨ	-yu	-yiro	-hɨyu
	3S.M	-wi	-ti	-yi	-yigi	-hɨyi
	3S.F	-wo	-to	-yo	-yigo	-hɨyo
	3PL	-wa	-ta	-ya	-yira	-hɨya
Present	N.3	-a	-ga	*	**	-ku
	3S.M	-i	-gi	-hɨi		-ki
	3S.F	-yo	-go	-hɨo		-ko
	3PL	-ya	-ga	-hɨra		-kua

* Tuyuka does not have a first person suffix in this paradigm and the second person is expressed by the third person suffixes.

** Tuyuka does not have any present tense reportative suffixes.

Tuyuka subject agreement paradigms show much regularity. There are various correspondences between the vowels and the subject agreement category. For instance, the third person singular feminine is always marked with *-o* and the third person plural form always contains the vowel *-a*. It is harder to generalize a single vowel as a subject agreement marker for third person singular masculine: in most cases this category is marked with the vowel *-i*, but in the past reportative it is marked with the vowel *-ɨ*.

There is some regularity in the marking of tense and evidentiality as well. For instance, the suffixes in the past visual paradigm all have the consonant *-w*, the past nonvisual *-t*, the present nonvisual *-g*, the past inferential *-y* and the present assumed *-k*. The past

but it has two types of reportatives: a regular one and one that is used as a quotative or in folklore (Silva, 2012, pp. 253-261).

reportative suffixes show the syllable *-yi* and the present inferential and past assumed *-hĩ*. Despite the regularities it is difficult to separate a tense/evidential suffix and a subject agreement suffix. Some evidential/tense categories do not show one consonant that marks them, such as the present visual. Although it is synchronically challenging to separate evidential/tense suffixes from subject agreement suffixes, these regularities suggest that the suffixes were diachronically at least bimorphemic. The evidential / tense suffixes and subject agreement suffixes merged into one portmanteau suffix (Malone, 1988).

Some Eastern Tukanoan languages show less fusion than others with respect to their evidential morphology. For instance, Desano (Silva, 2012, pp. 253-261) and Retuarã (Strom, 1992, pp. 90-91) have evidential suffixes that are separate from the subject agreement markers. This is illustrated for Desano:

- (37) *~igũ* *pea* *tabe-gũ* *i-Ø-~bi*.
 3S.M firewood chop-3S.M do-VIS-3S.M.IMPF
 ‘He is chopping the firewood.’ (I saw it). (Silva, 2012, pp. 256-257).
- (38) *~igũ* *pea* *tabe-gũ* *i-ku-~bi*.
 3S.M firewood chop-3S.M do-N.VIS-3S.M.IMPF
 ‘He is chopping the firewood.’ (I heard it). (Silva, 2012, p. 257).
- (39) *widi-~dũga-~ya* *~igũ* *~bũdũ* *uu-pudi-i-~yu-~bi*
 leave-stand.up-see 3S.M tobacco suck-blow-do-REP-3S.M.IMPF
 ‘He left home looking around and smoking tobacco.’ (I heard this in a traditional story). (Silva, 2012, p. 259).

The examples (37-39) all show the subject agreement marker *~bi* despite the presence of the evidential suffixes. Visual, nonvisual, regular reportative and folklore reportative sentences all show the same subject agreement marking. Inferential and assumed evidential sentences, however, do not seem to show any subject agreement marking at all.

There is yet another way in which evidentiality is expressed in declarative clauses in Eastern Tukanoan languages. Some languages show periphrastic constructions that mark evidentiality. An example of such a language is Wanano. The categories of nonvisual and inferential evidentiality are expressed in this way as illustrated in the examples below:

Wanano

Nonvisual

- (40) ~dubi-a ~ya'a-~ida ta-a ~di-a
 woman-PL catch-NLZ.PL come-NLZ be.PRG-NLZ
 koa-ta-ra.⁵⁰
 N.VIS-come-VIS.IMPF.2/3
 'Women-kidnappers are coming.' (I can hear them). (Stenzel, 2008a, p. 417).

Inferential

- (41) yoa-ta-pu wiha-tu'su-ri
 be.far-REF-LOC mov.outward-just.complete-NLZ.INFR
 hi-ra.
 COP-VIS.IMPF.2/3
 'They're already gone (they've escaped).' (I infer). (Stenzel, 2008a, p. 419).

It is shown in example (40) that the nonvisual is formed by a nonvisual element *koa-* that probably derives historically from a verb root that means 'to make noise' (Stenzel, 2012), the verb *ta-* 'to come' and a subject agreement marker. The inferential, as illustrated in (41), consists of a nominalized verb that ends in the nominalizer *-ri* and an inflected form of the copula *hi-*. Visual, assertive and reportative evidentiality are expressed by suffixes in Wanano, similar to the expression of evidentiality in declarative clauses in other Tukanoan languages.

2.6.1.2 Evidentiality in interrogative clauses

It is possible in various Eastern Tukanoan languages to express evidentiality in questions. An example of an evidential used in a question from Tatuyo is presented in example (42):

⁵⁰ Stenzel (2008a) analyzes the suffix *-ra* as a visual evidential marker, because when it is used outside of the nonvisual and inferential constructions this marker has a visual interpretation. However, when it is used in the nonvisual and inferential constructions it does not have a visual interpretation.

Tatuyo

(42) kó¹-igá-ki-tí?

3S.F-eat-N.VIS-INT

‘(Do you hear if) she is eating?’ (Gomez-Imbert, 2007a, p. 76; glosses and translation are mine).

When an evidential is used in questions in Eastern Tukanoan languages, as in example (42), speakers are not referring to their own access to information; they are referring to the addressee’s possible source of evidence. The fact that the access mode switches from the speaker to the addressee shows that the evidential meaning is affected by the clause type of the sentence. The evidential expresses the access mode of the epistemic authority in Eastern Tukanoan languages.

The evidential systems are not as large in interrogative clauses as in declarative clauses in the languages. There is a more restricted set of evidential options in interrogative clauses. For instance, in Tatuyo, there is only one form to ask for the addressee’s inferential knowledge or reportative knowledge (Gomez-Imbert, 2007a, p. 77). There is a general indirect evidential in interrogative clauses in Tuyuka instead of the three specific indirect evidential in declaratives (inferential, reportative and assumed) (Barnes & Malone, 2000, p. 443; Malone, 1988, p. 122).⁵¹

There are not only modifications with respect to the evidential meanings in questions in Eastern Tukanoan languages. There are differences in the forms as well. For instance, there is less fusion between expressed categories in some languages. The Tuyuka interrogative evidentials *-Ri*⁵² ‘visual present,’ *-ri* ‘visual past,’ *-gari* ‘nonvisual present & indirect present,’ *-tari* ‘nonvisual past’ and *-yiri* ‘indirect past’ are analyzable in an evidential suffix and an interrogative suffix. The visual suffixes do not contain a specific evidential marker. The first syllable in the other suffixes contains the evidential value and

⁵¹ A similar reduction of the evidential meanings in questions is described for many of the Eastern Tukanoan languages, such as Barasana (Jones & Jones, 1991, pp. 115-119), Makuna (Smothermon, Smothermon, & Frank, 1995, p. 61), Siriano (Criswell & Brandrup, 2000, p. 403), Tukano (Aikhenvald, 2004, pp. 85-86; Ramirez, 1997, pp. 143-144), Wanano (Stenzel, 2008a, pp. 432-436; C. Waltz & Waltz, 2000, p. 457) and Yurutí (Kinch & Kinch, 2000, p. 462).

⁵² The spelling of the suffix *-Ri* is taken from Malone (1988, p. 121) This author states that the capital *R* is a reconstructed consonant. This reconstruction was based on the interrogative suffixes in other Eastern Tukanoan languages. The suffix is pronounced as *-i* in present day Tuyuka.

the second syllable the interrogative value, as illustrated in the table below:

Table 2.8: The segmentation of the interrogative evidential suffixes (Barnes & Malone, 2000, p. 443; Malone, 1988, pp. 121-122)

Suffix	Evidential	Interrogative	Interpretation
<i>-Ri</i>	Ø	<i>-Ri</i>	visual interrogative present'
<i>-ri</i>	Ø	<i>-ri</i>	visual interrogative past'
<i>-gari</i>	<i>-ga</i>	<i>-ri</i>	nonvisual interrogative present & indirect interrogative present
<i>-tari/</i> <i>-tiri</i>	<i>-ta / -ti</i>	<i>-ri</i>	nonvisual interrogative past
<i>-yiri</i>	<i>-yi</i>	<i>-ri</i>	indirect interrogative past

The interrogative suffix *-ri* replaces the declarative subject agreement morphology and therefore, interrogative verb forms are unmarked for subject in many Eastern Tukanoan languages. This is illustrated below for Desano:

Desano

- (43) a. *wã?gã-ri* *bĩ?*
 get.up-INT 2s
 'Did you get up?' (Miller, 1999, p. 130)
- b. *wã?gã-bi.*
 get.up-N3.PAST
 'I got up.' (Miller, 1999, p. 130).

The verb *wã?gãri* 'get up' in the question in example (43a) does not contain any subject agreement morpheme; it only carries an interrogative suffix *-ri*. This suffix is replaced by the subject agreement past suffix *-bi* in the answer in example (43b). Other languages, such as Tatuyo as shown in example (42), have developed separate interrogative prefixes. The prefix *kó'-* on the verb *kó'igákítí* '(do you hear if) she is eating?' is used to express that the verb has a third person singular feminine subject. Tatuyo has suffixes, just as most other Eastern Tukanoan languages, in order to mark subject agreement in declarative clauses (Gomez-Imbert, 2003, 2007a).

2.6.1.3 The origin of the expression

Malone (1988) provides a historical explanation for the regularities and irregularities in the Eastern Tukanoan and especially the Tuyuka subject agreement systems. The first regularity is found in the elements that seem to express evidentiality. According to this author, many of the different paradigms developed out of phonologically reduced periphrastic constructions. For languages that have little fusion of categories this is easier to image. For instance in Tatuyo, the evidential suffixes, that were probably auxiliary verbs in the past, can be distinguished more easily. This will be illustrated for the example below:

Tatuyo

- (44) iga-ki-~bo.
 eat-NVIS-3S.F
 ‘She is eating.’ (I hear).
 (Gomez-Imbert, 2007a, p. 76; glosses and translation are mine).

The Tatuyo nonvisual suffix *-ki-*, as illustrated in example (44), seems to originate from an auxiliary verb in Eastern Tukanoan languages. Possible evidence for its origin is found in Kubeo. This language contains the verb *ki-* that is used in existential predicates, as shown in the example below:

Kubeo

- (45) u ki-abě bākā-dō-i
 sloth exist-3M jungle-CNT-LOC
 ‘the sloth lives in the jungle.’ (Chacón, 2012, p. 263).

An existential verb **ki-*, which is still used in this way in Kubeo, may have been the source for the nonvisual evidential suffix in Tatuyo. Crosslinguistically, it is not uncommon that auxiliary verb constructions with the verb ‘to be’ develop into evidential constructions,⁵³ as discussed in subsections 2.5.2 and 2.5.3.

In languages with more fusion such as Tuyuka, the evidential element is highly fused with the subject agreement morphology. Despite this difficulty, Malone (1988, pp. 126-127) reconstructs the evidential elements for Tuyuka and shows that various of these elements are (almost) identical to auxiliary verbs used in other Eastern Tukanoan

⁵³ These evidential constructions are not necessarily non-visual evidentials. Auxiliary verb constructions may develop into other types of evidentials as well.

language. For instance, the non-visual past evidential developed from a periphrastic construction with an auxiliary verb **ti*, according to this author. She provides both language internal and external evidence for this reconstruction. A construction with the auxiliary *tii* in Tuyuka and *ti* in Yurutí is used to express progressive aspect, as illustrated below:

Tuyuka

- (46) yai wede-gɨ tii-gí
 jaguar speak-S.M AUX-NVIS.PRS.3S.M
 'A jaguar is crying.' (Speaker hears but does not see the animal).
 (Malone, 1988, p. 130).

Yurutí

- (47) yai uti-gɨ ti-gawi
 jaguar cry-S.M AUX-ASM.PRS.3S.M
 'A jaguar is crying.' (Malone, 1988, p. 130).

The auxiliary verb *tii* seems to have been the auxiliary verb in a nonvisual evidential construction in Tuyuka. The auxiliary verb then became a suffix and eventually it fused with the subject agreement morphology. This fusion consisted of a replacement of the vowel *i* by the vowel that marks the subject agreement morphology: *ti* + *-i* = *-ti* for the non-third person marking, *ti* + *-i* = *-ti* for third person singular masculine, *ti* + *-o* = *-to* for third person singular feminine and *ti* + *-a* = *-ta* for third person plural (see table 2.7 for an overview of the forms). The original nonvisual past suffix can still be recognized in the nonvisual interrogative past suffix *-tiri* (see table 2.8 for an overview of the interrogative forms). According to Malone (1988), a similar process of fusion took place in the case of the nonvisual present paradigm, the inferential past and the assumed past for which she reconstructs the evidential markers **ga*, **yu* and **ku*.

There is another indication that Malone's reconstruction of the evidential paradigms as originating in auxiliary verb constructions is correct. The evidential element *-hĩ* that appears in the inferential present and the assumed past has a cognate in Wanano. The Wanano cognate *hi-* is found as an auxiliary verb in the periphrastic inferential construction in Wanano. This construction was illustrated in (41) and is repeated here in (48):

Wanano

- (48) yoa-ta-pu wiha-tu'su-ri
 be.far-REF-LOC mov.outward-just.complete-NLZ.INF
 hi-ra
 COP-VIS.IMPF.2/3
 'They're already gone (they've escaped).' (I infer). (Stenzel, 2008a, p. 419).

Example (48) shows that the copula *hi* is used in combination with the nominalizer *-ri* that appears on the lexical verb in order to express inferential evidentiality. It is, therefore, not inconceivable that these types of auxiliary verb constructions have given rise to the evidentials in other Eastern Tukanoan languages.

There is a second type of regularity that is found in the Tuyuka subject agreement paradigms. That is, the subject agreement elements in the suffixes are often the same or similar. For instance, the vowel *o* is often found for third person feminine and *a* for third person plural, as mentioned above. However, it is not possible to identify a single subject agreement marker for all the persons. Malone (1988) provides a solution for this problem. According to this author, these irregularities are due to the use of two different subject agreement sets to form the different evidential morphemes. The two sets are given in table 2.9:

Table 2.9: The two subject agreement sets in Proto-Tuyuka (Malone, 1988, p. 125).

	Set 1		Set 2
	Past	Present	
N.3	-i	-Ø	-ro
3S.M	-i		-i/-gi
3S.F	-o		-o/-go
3PL	-a		-ra

Set 1 is used for most paradigms. This set seems to be the original subject agreement paradigm in the language. The paradigms that contain this person marking have developed out of auxiliary verb constructions that fused and became portmanteau suffixes. These constructions probably had the following form:

(49) *[[VERB-NLZ] AUX-SBJ.AGREE]⁵⁴

The auxiliary and the subject agreement morphology, as shown in (49), probably fused and became the evidential portmanteau suffixes that are found today in Tuyuka.

Set 2 is only used for the reportative past paradigm and the inferential present paradigm. These suffixes probably did not originate in the language as finite subject agreement suffixes. The markers from set 2 show the peculiarity that they are identical to the subordinate verb suffixes and the nominalizers: *-ro* (inanimate), *-gi* (singular masculine), *-go* (singular feminine), *-ra* (plural) (Malone, 1988, p. 125). It is not uncommon that dependent verbs gradually start to be used in main clause contexts as the main verb (Aikhenvald, 2004, pp. 281-283; Campbell, 1991; Comrie, 1981, pp. 153-154; Epps, 2005; Evans, 2007; Mithun, 2008). As discussed in subsection 2.5.3, the use of dependent verbs as main verbs in main clauses can give rise to structures with an evidential interpretation.

I hypothesize that the reportative past suffixes and the inferential present suffixes developed from a more complex auxiliary verb construction. These two evidential/tense categories display traces of first an auxiliary verb and then a nominalization. Therefore, I reconstruct these two evidential/tense categories in the following way:

(50) *[VERB-AUX-NLZ].

The auxiliary verb, as presented in (50), developed into the evidential element in the evidential suffixes in present day Tuyuka. The reportative past consists of a putative historical auxiliary *-yu* in

⁵⁴This reconstruction is based on Malone's (1988, p. 135). One difference between Malone's reconstruction and mine is that Malone reconstructs the subject agreement marking as evidential marking. I however believe that this was plain subject agreement marking without any evidential value. The evidential interpretation used to arise from the combination of elements in the auxiliary verb construction. Another possible source of doubt with respect to Malone's reconstruction is the nominalization of the lexical verb, which Malone refers to as gender marking. It is not clear whether this gender marking is necessary in the reconstruction of these paradigms, since there is no trace of it in Tuyuka. These paradigms may also have developed out of serial verb construction in which the auxiliary verb was directly attached to the lexical verb. Serial verb constructions are very common in Tukanoan languages. Therefore, another possible reconstruction of these portmanteau forms is VERB-AUX-SBJ.AGREE.

combination with one of the nominalizers and the inferential present consists of the historical auxiliary *-hĩ* in combination with a nominalizer. There is evidence from Wanano for the latter construction. The cognate of the Tuyuka inferential present marker *-hĩ* in Wanano is the auxiliary *hi* ‘to be.’ This auxiliary verb is used in the Wanano inferential construction as well, as illustrated in subsection 2.6.1.1 in example (41).

At an even earlier stage, the nominalization was probably used in combination with an auxiliary verb. The use of the auxiliary made it possible to use a nominalization. This reconstructed structure is presented below:

(51) *[[VERB-AUX-NLZ] AUX-SBJ.AGREE].

The structure AUX-SBJ.AGREE in (51) represents the auxiliary verb that was used in these reconstructed auxiliary constructions. This inflected auxiliary verb may have introduced the nominalization at an earlier stage. The inflected auxiliary verb was then lost later on and the nominalization was reanalyzed as subject agreement morphology.

There are not only suffixes found in declarative contexts that are historically nominalizers. Idiatov & Van der Auwera (2004, 2008) observe that interrogative clauses are also marked with suffixes that were historically nominalizers in Eastern Tukanoan languages. Interrogative verbs are marked by the suffixes *-ri* or *-ti*, as shown in subsection 2.6.1.2. These interrogative suffixes are identical to the nominalizers *-ri* and *-ti* that exist in many of these languages. The interrogative verb forms were probably used in combination with an auxiliary verb in the past. This auxiliary was then lost over time, just as in the case of the Tuyuka reportative past and inferential present suffixes.

In summary, the evidentials in declarative and interrogative sentences in Eastern Tukanoan languages seem to have developed out of complex auxiliary verb constructions, as Malone (1988) has argued. The evidential interpretation can often be assigned to the phonological remains of the auxiliary verb. The irregularities in the subject agreement marking between evidential paradigms in some of the Eastern Tukanoan languages can be explained historically as well. It is not the original subject agreement morphology that is used in all the paradigms. In some paradigms, suffixes that seem to have originated as nominalizers are used as subject agreement markers. These nominalizers were probably introduced as main clause subject

agreement markers as a result of the loss of a nonfinite auxiliary verb. It is possible that the interrogative marker *-ri* / *-ti* has a similar origin.

2.6.2 Indirect orders

Various Eastern Tukanoan languages have ways to express that the speaker makes an order or request on behalf of someone else. The verbal marking that is used for this function is discussed in 2.6.2.1 from a synchronic perspective and in 2.6.2.2 from a diachronic perspective.

2.6.2.1 Indirect orders from a synchronic perspective

Many Eastern Tukanoan languages have a specific verbal suffix that is regularly used to express that a speaker indirectly orders someone to do something or to repeat the order that was issued by someone else. An example of this specific suffix in Tukano is presented below in (52):

Tukano

- (52) A'ti-ato!
 come-IND.IMP
 'Come!' (on his order). (Aikhenvald, 2002, p. 130).

The speaker in example (52) uses the verbal suffix *-ato* in Tukano to express that she / he repeats what was ordered by someone else. Cognates in other Eastern Tukanoan languages are *-ato* and *-haro* in Barasana (Jones & Jones, 1991, pp. 81-82; Gomez-Imbert, pers. comm.), *-to* and *-ro* in Karapana (Metzger, 2000, p. 147), *-haro* in Makuna (Smothermon et al., 1995, p. 63), *-ato* and *-paro* in Tatuyo (Gomez-Imbert, pers. comm.), *-aro* in Tuyuka (Barnes, 1979, p. 92), *-jaro*⁵⁵ in Wanano / Kotiria (N. E. Waltz & Waltz, 1997, p. 40) *-aro* in Yurutí (Kinch & Kinch, 2000, p. 482).

Aikhenvald (2002, p. 130; 2004, p. 250; 2008, pp. 200-202; 2010, p. 138; 2012, pp. 266-267) analyzes this type of verbal suffixes in Eastern Tukanoan languages as a 'secondhand imperative.' In her view,

⁵⁵ The orthographic <j>, as used in the Wanano indirect imperative *-jaro*, is pronounced as a glottal fricative [h], just like the /h/ in Barasana and Makuna. The third person imperative forms in the three languages are pronounced in a very similar way; they only differ in orthography. The Wanano orthography used by Waltz & Waltz (1997) is based on the Spanish orthography, and the Barasana orthography by Jones & Jones (1991) and the Makuna orthography by Smothermon et al. (1995) are probably based on IPA.

this is an evidential imperative suffix. The use of these suffixes in repeating an order or ordering on behalf of someone else is very similar to the function of the combination of a reportative and an imperative suffix in Shipibo-Konibo, which was discussed above in subsection 2.4.3. This is illustrated in the examples below:

Shipibo-Konibo

- (53) Onpax-ki be-wé!
 Contained.water:ABS-REP bring-IMP
 '(S/he says that you must) bring water!' (Valenzuela, 2003, p.
 42).

The Tukano indirect imperative suffix *-ato* in example (52) expresses a function very similar to the Shipibo-Konibo combination of the reportative suffix *-ki* and the imperative suffix *-wé* shown in example (53) (and repeated from example (31)). In both cases, the speaker defers the responsibility for the order.

Although the Tukano and Shipibo-Konibo examples above have a very similar pragmatic function, namely reporting some else's order, I claim that there is a major difference between the two sentences. In my analysis, while the Shipibo-Konibo sentence in (53) does contain an evidential form, namely the reportative *-ki*, the Tukano sentence in (52) does not. Contrary to Aikhenvald's analysis (2002, p. 130; 2004, p. 250; 2008, pp. 200-202; 2010, p. 138; 2012, pp. 266-267), I do not analyze the verbal suffix *-ato* in Tukano and its cognates in other Eastern Tukanoan languages as evidential suffixes. My reasons for this are twofold.

The first and minor reason is that the suffix *-ato* is not part of the regular tense-evidential paradigms in Tukano, as also noted by Aikhenvald (2002, p. 130; 2003a, p. 163 note 5; 2008, p. 201). The form *-ato* does not resemble the form of the reportative suffixes in declarative clauses, which all contain the consonant *-p* in their form, such as the third person non-feminine recent past suffix *-ápi'* as shown in example (35d). It is not possible to identify separate reportative and imperative elements in the suffix *-ato*. The same holds for the cognates in other Tukanoan languages.

The second and major reason why I claim that this type of suffixes in Eastern Tukanoan languages is not an evidential suffix is that it does not always simply express a reported order. The suffix is also used when speakers express that they want a third person to do something. This is illustrated in the example below:

Tukano

- (54) Dãâ basâ-ato!
 they dance-IND.IMP
 'May they dance!' (Ramirez, 1997, p. 146).

In example (54), the speaker indirectly orders a non-speech act participant to dance. This use does not have an evidential interpretation. The speaker does not shift the deontic authority; she/he expresses her/his wish. This use is also found for the cognate suffix in Barasana, as illustrated in the example below:

Barasana

- (55) kēda-a-to so.
 good-PRX-IND.IMP 3S.F
 'May she be well!' or
 'I hope she is well.' (Jones & Jones, 1991, p. 81).

The second translation of example (55) demonstrates that the speaker expresses her / his own wish with the indirect imperative. It appears that the third person order use of the cognates of Tukano *-ato* is more common in the Eastern Tukanoan languages. While this use has been described for many of the languages, the 'secondhand imperative' use has not been described for all these forms (See for Tuyuka Barnes, 1979, p. 92; for Barasana Jones & Jones, 1991, pp. 81-82; for Karapana Metzger, 2000, p. 147; for Makuna Smothermon et al., 1995, p. 63; for Wanano N. E. Waltz & Waltz, 1997, p. 40).

The two uses of the Eastern Tukanoan suffixes described above are clearly related; in both uses a wish is being expressed. When speakers use the suffix as a third person imperative, they express their own wish for a non-speech act participant to do something. When speakers use the suffixes to order the addressee to do something on behalf of someone else, they express a non-speech act participant's wish for the addressee to do something. Since both uses concern the expression of a wish, the suffixes can be analysed as optative suffixes. The exact interpretation can be inferred from the context. Whether it is the speaker's or a non-speech act participant's wish can be interpreted pragmatically. The exact party receiving the order can be understood either from the presence of pronouns, as shown in example (54) and (55) or from the context, as shown in example (52). Therefore, I consider the evidential interpretation of the suffixes in its use as a 'secondhand imperative' to be a pragmatic extension of the optative function.

2.6.2.2 Indirect orders from a diachronic perspective

The flexible use of the optative in Eastern Tukanoan languages can be better understood from a historical point of view. Most of the optative suffixes in Eastern Tukanoan languages are probably bimorphemic historically, containing a morpheme *-a* or *-ha* and another morpheme *-ro* or *-to*.⁵⁶ These suffixes are found as verbal suffixes in other Eastern Tukanoan languages as well. The suffix *-a* marks tense or aspect in various languages. For instance, it is used to mark present tense in Barasana (Jones & Jones, 1991) and Makuna (Smothermon et al., 1995), it is used in Kubeo to mark past tense (Chacón, 2012), it is used in Karapana in various past tense paradigms (Metzger, 2000), and it is used as an evidential perfective form in Wanano (Stenzel, 2008a). The suffix *-a* may even go back to an (auxiliary) verb. A verb *a* is used in Kubeo to express either 'to say' or 'to do.' A bound verb *-a* is used as an existential copula in various Western Tukanoan languages (see Johnson & Levinsohn, 1990; Schwarz, 2011 for Ecuadorian Sekoya; and see Wheeler, 1987b for Colombian Siona).

The suffix *-ha* also seems to be an original tense / aspect suffix. For instance, a suffix *-ha* is found in imperfective contexts in Wanano. It marks imperfective first person singular visual and it is used as an imperfective marker in the imperfective interrogative suffix *-hari* (Stenzel, 2013, p. 269). The above presented data provide some indications that the suffixes *-a* and *-ha* developed either from tense or aspect uses of these forms. However, synchronically it is for most languages difficult to deduce what these elements add to the semantics of the optative.⁵⁷

The suffixes *-ro* and *-to* in the optative probably stem from an inanimate nominalizer **-ro*. The two forms are cognates, and the *r/t* distinction has a morphophonological background, which will be discussed in chapter 7. Cognates of the nominalizer **-ro* still exist in various Eastern Tukanoan languages, such as Barasana (Jones & Jones, 1991, p. 89), Desano (Silva, 2012), Kubeo (Chacón, 2012) and Tuyuka

⁵⁶ Jones and Jones (1991, pp. 81-82) synchronically analyze the indirect imperative forms *-a-to* and *-ha-ro* as bimorphemic as well. The suffixes *-a* and *-ha* mark a non-proximate action. It is, however, probably difficult to sustain this analysis (Gomez-Imbert, pers. comm.).

⁵⁷ The existing data does not provide enough information for most languages in order to make a claim about the contemporary semantics of the elements *-a* and *-ha*. More research on these forms is needed in order to decide whether the elements form a single suffix together with *-ro* or *-to* or whether they could be analyzed as separate morphemes.

(Malone, 1988). These nominalizers are used in some languages to mark complement clauses, as shown for Kubeo in the example below:

Kubeo

- (56) [ĩre jai kĩ-dõ]-de bāhĩ-wa-i-wĩ ɕiã jĩ
 [a.lot liana exist-NLZ]-OBJ know-HAB-ST-N.3.ANIM VOC 1S
 'I know where there are a lot of lianas.' (Chacón, 2012, p. 348).

The nominalizer *-dõ*, which is derived from **-ro*, is used in example (56) in order to nominalize the clause 'there are a lot of lianas,' so that it can be used as a complement of the verb *bāhĩwaiwĩ* 'I know.'

This complementation use of the nominalizer **-ro* probably developed into an optative. Crosslinguistically, it is not uncommon that such types of complement clauses obtain an optative use. For instance, in Romance languages it is possible to use a complement clause as a main clause in order to express a wish:

Spanish

- (57) Que viva la cumpleañera!
 that live.3S.SUBJ the birthday girl
 'May the birthday girl live (long)!'

In example (57), from Spanish, a subordinate subjunctive clause is used as a main clause. This use may be the result of the loss of a main clause such as *espero* 'I hope' / *deseo* 'I wish' and is now conventionalized in the language. This type of development from a complement clause to an optative main clause can explain the use of an erstwhile nominalizer as a third person imperative form.

The 'reported order' use of the optative in Eastern Tukanoan languages can also be explained in a similar way. This use may have developed from the main clause use of a complement clause as well. Again Spanish may provide an interesting parallel:

Spanish

- (58) A: Come!
 eat.IMP
 'Eat!'
 B: Qué dijiste?
 what say.2S.PST
 'What did you say?'

A: (Dije) que comas!
 (say.1S.PST) that eat.2S.SUBJ
 ‘(I said) that you should eat!’

Example (58) represents a short conversation in which speaker A orders speaker B to eat. Speaker B does not hear speaker A and asks what she/he has said. Speaker A then uses a complement clause in order to repeat the order omitting the main clause *dije* ‘I said.’

This type of structure does not necessarily need to be used in Spanish to repeat one’s own order. It can also be used to repeat someone else’s order omitting the main clause *dijo* ‘she/he said.’ The use of a complement clause in order to repeat an order was probably the basic structure from which the reported order use of the optative developed. It was first a complement clause with an omitted main clause and then it developed into a separate verb form.

The emergence of two uses for the optative can be explained by assuming that the form developed from complement clauses. The difference in interpretation may be due to the historical omission of the main clause. Due to the omission of the main clause, speakers could reconstruct different main clauses for the optative. In the case of the ‘third person imperative’ use the reconstructed main clause would be something along the lines of ‘I wish’ and the reconstructed main clause in the case of the reported order would be something along the lines of ‘she/he said.’ This development of the optative suffixes in Eastern Tukanoan languages from complement clauses seems to be a typical case of insubordination, as it was discussed in 2.5.3.

2.6.3 Evidentiality in Eastern Tukanoan languages, a summary

The expression of evidentiality in Eastern Tukanoan languages is dependent on the clause type of the utterance. Most types of evidentiality are expressed in declarative clauses. The languages show up to six types of evidentials in declarative clauses. These evidentials refer to the mode of access that the speaker has for the information expressed by the utterance. The languages contain far less evidential types in interrogative clauses, if any. In this type of clause, the evidentials refer to the addressee’s supposed mode of access for the asked information.

The evidentials in declarative clauses and the evidentials in interrogative clauses are historically related. The evidential suffixes in some languages and the portmanteau tense evidentiality and subject

agreement forms in other languages show traces of auxiliary verb constructions from which the suffixes have developed. The elements that can be identified as the evidential markers are often similar to auxiliary verbs in other Tukanoan languages. The elements that can be identified as subject agreement markers can often be reconstructed as original subject agreement suffixes or nominalizers. The difference between the evidential forms in declarative and interrogative clauses is mostly that interrogative clauses have an interrogative suffix that probably developed out of the nominalizer **-ri* and that replaces the declarative subject agreement marking at the end of the verb.

In my analysis, imperative clauses do not show any evidentials. That is, there is a special verb form that is used in order to express that the speaker is reporting the order on behalf of someone else: the optative. However, this verb form is not related to declarative and interrogative evidential systems and its reportative function is not its sole use. The verb form is also used for third person imperatives. Historically, this verb form should probably not be considered an imperative form and it remains a question whether it should be synchronically. Further research is needed to determine whether this form can be considered synchronically to be an evidential imperative.

In conclusion, the expression of evidentiality is typically part of the declarative and the interrogative domain in Eastern Tukanoan languages. These two clause types are both used in order to facilitate the transmission of knowledge. Therefore, it seems that the evidentials this group of language functions within the domain of knowledge transmission.

This interaction with clause types does not provide any clear indications that the expression of evidentiality takes place within the domain of clause-typing in Eastern Tukanoan languages. If an evidential operates within the domain of clause-typing, one expects that the evidential can modify the interpretation of the clause type. In this group of languages, the clause types do not seem to be modified by the evidentials. It seems to be the other way around: the evidential interpretations are modified by the use in different clause types. When the evidentials are used in questions, locus of the access mode shifts from the speaker to the hearer.

The use of evidentials in declarative clause does not seem to modify the assertive sentential force of the clauses. There is no indication that the speakers claim that they do not commit to the truth of the information expressed in the utterance. A possible exception may be the Kubeo reportative clitic *-ja*, as illustrated in the examples below:

Kubeo

(58) *ã-o-abẽ=ja.*

eat-CAUS-3S.M=REP

‘he fed (him), so they say.’ (Chacón, 2012, p. 53).

(59) *ĩ hiaðo=kũ-de hapiwa-kiji-be=ja*

he river=CLS-OBJ drive-FUT.NLZ.M-COP.3S.ANIM=REP

‘He will be a boat pilot (as for what they say).’ (Chacón, 2012, p. 279).

The translation in example (58) and (59) suggest that the speaker does not vouch for the truth of the information. It seems that the speaker is assigning the epistemic authority to a non-speech act participant. Further testing will have to clarify, whether the Kubeo reportative clitic is used to shift the epistemic authority. As for the other evidentials in Eastern Tukanoan languages there are no indication that the evidentials modify the sentential force of a clause. However, further research will have to determine, whether this is never the case.

