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Clause-typing and evidentiality in Ecuadorian Siona

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Chapter 8: Conclusions

8.1 Introduction

This dissertation set out to study the expression of evidentiality in Ecuadorian Siona. I investigated both the current semantics and pragmatics of the elements that express evidentiality in the language and their historical development. The findings in this dissertation have implications for our understanding of both evidentiality and clause-typing. These findings and implications are summarized in this chapter in sections 8.2 and 8.3. Some recommendations for future research will be made in section 8.4.

8.2 Findings

The findings of this dissertation are presented in the following two subsections: the synchronic analysis of the expression of evidentiality and of the system in which these evidentiality interpretations occur is addressed in subsection 8.2.1 and the diachronic analysis of this system in 8.2.2.

8.2.1 Ecuadorian Siona clause types from a synchronic perspective

Ecuadorian Siona has various verbal paradigms of portmanteau morphemes that express subject agreement, tense, clause type and in some cases evidentiality, as shown in chapter 5 and 6. The two types of evidentiality that are found in the language are reportative and conjectural evidentiality. The reportative verb form is used when the speaker does not have direct access to the information, but has heard it from someone else. The conjectural verb form is also used when the speaker does not have direct access to the information, but in this case the speaker only formulates a conjecture about the information.

These two types of evidentiality are mutually exclusive with assertions and questions, as illustrated in the examples below repeated from chapter 1:

- (1) a. Ocoji. (Assertive).
 Ohko-hi.
 rain-3S.M.PRS.ASS
 'It is raining.' (I vouch for it). (20110325elicr001.205).

- b. Ocoquë? (Interrogative).
 Ohko-ki?
 rain-2/3S.M.PRS.N.ASS
 'Is it raining?' (I am asking). (20110325elicr001.204).
- c. Ocoquëña. (Reportative).
 Ohko-ki-jã.
 rain-2/3S.M.PRS.N.ASS-REP
 'It is raining.' (I am told). (20110402elicr001.001).
- d. Ocoa ba'i. (Conjectural).
 Ohko-a ba-'i-i.
 rain-NEG be-IMPF-2/3S.M.PRS.N.ASS
 'It is raining.' (I am conjecturing).
 (20110402elicr001.002).

The assertive, as illustrated in example (1a), is distinct from the interrogative, reportative and conjectural because of its assertive subject agreement morphology. The interrogative, reportative, and conjectural all show the same non-assertive subject agreement morphology. The last two categories are distinguished by additional morphology, such as the reportative suffix *-jã* and the periphrastic negator *-a ba'i*.

There seem to be distinct reasons for this distribution of the assertive, interrogative, reportative and conjectural clause types. The reason in the case of the conjectural is that it is actually a type of question; this evidential form is expressed by a negative question. For instance, the conjectural sentence in example (1d) can be literally translated as 'Isn't it raining?' When this type of negative question is used, the speakers are usually not asking the addressee for information. They are requesting an information update as they do with regular questions. In such negative questions, speakers introduce information to which they do not have direct access, but which they consider to be possible or probable.

This evidential and epistemic interpretation is not reached by introducing a propositional modal to the clause. Rather, it is generated by the presupposition that speakers believe the opposite when they ask a negative question. For instance, when a speaker asks 'Isn't it raining?' it appears that she/he believed that it was raining. This presupposition about the beliefs of the speaker seems to have generalized in Ecuadorian Siona and therefore, the negative questions with the negation *-a ba'i* are now regularly used as conjectural statements.

By contrast, the reportative cannot be analyzed as a subtype of questions. There is a different reason why reportative utterances are mutually exclusive with the assertive and interrogative utterances. The assertive, interrogative and reportative cannot co-occur because they are three distinct clause types. The differences between these clause types can be viewed in terms of differences in epistemic authority. In assertive clauses, speakers assert the information in the proposition. This means that they vouch for the truth of this information and that they assign the epistemic authority for the proposition to themselves. When they use an assertive clause, speakers present themselves as *knowers*. In interrogative clauses, speakers ask the addressee for information. They present the addressee as the one who holds the information that they are inquiring about. Therefore, in interrogative clauses speakers assign the epistemic authority to the addressee.

In reportative clauses, speakers do not assign the epistemic authority to either one of the speech act participants, as they do in the case of assertions and questions. Rather, speakers present the information as coming from a third party that is neither the speaker nor the addressee. In reportative clauses, then, the epistemic authority lies with that third party. Speakers do not vouch for the truth of this information, as illustrated in the example below repeated from chapter 6:

- (2) Jairo toto nejëyoëña. Caëna toto jëyëma'co baja'i.
 Jairo tohto ne-hijo-i-jă. ka-i-na
 Jairo board do-break-2/3S.M.PST.N.ASS-REP say-S.M.PST-DS
 tohto hiji-ma'-ko ba-ha'i.
 board be.broken-NEG-NLZ.F be-3S.M.PST.ASS
 'Jairo, supposedly, broke the board, (but although) someone said that, the board was not broken.' (20110830elicr001.061).

Example (2) shows that it is possible to use a reportative when speakers know that the information portrayed by the proposition is false. Speakers convey that they just report what someone else has said. This shows that they do not assign the epistemic authority to themselves; but to a non-speech act participant.

Deferring the epistemic authority to a third party can have various usage effects, as shown in chapter 6 in subsection 6.2.2. Although the reportative is often used in order to mitigate the speaker's responsibility for the information, this does not mean that the speaker is uncertain about the information. In some cases, speakers are quite

knowledgeable about the information, but they cannot claim epistemic authority because speaker and addressee both know that the speaker was not present or born yet.

Another use of the reportative is in reported requests or orders. A second person present tense or future reportative form can be used in order to express that someone else made the request. This use of the reportative cannot be interpreted as a 'secondhand imperative,' since the sentence is not marked for imperative. A literal interpretation of these sentences is: "You are doing it, it is said." When a reportative is used in this way, the communicative function of the sentence is that of a reported order or request, but that is not part of its semantics. The various distinct usages of the reportative all derive from the semantics of the clause type: a non-speech act participant has the epistemic authority over the information.

At first sight the expression of evidentiality in the Ecuadorian Siona clause typing system is similar to the evidential systems in Eastern Tukanoan languages. Evidentiality is expressed by portmanteau suffixes that also express tense and subject agreement in various Eastern Tukanoan languages. However the complex evidentiality systems that are found in Eastern Tukanoan languages cannot be analyzed as clause-typing systems. In contrast to Ecuadorian Siona, Eastern Tukanoan languages have evidentials that can co-occur with distinct clause types. Specifically, evidentials can occur in both declarative and interrogative clauses. Most Eastern Tukanoan evidentials therefore appear not to be part of the clause typing system, as is the case for the Ecuadorian Siona reportative.

I hypothesize that the Eastern Tukanoan evidentials operate within the sentential force domain. They may be sentential force modifiers, similarly to the Quechua evidential clitics. If this is the case, the Eastern Tukanoan evidentials do not mark different clause types, but they only modify the different clause types. It is also possible that Eastern Tukanoan evidentials operate within a different domain. More research on Eastern Tukanoan evidentials is necessary in order to help determine within which domain these evidentials operate.

8.2.2 Ecuadorian Siona clause types from a diachronic perspective

The Ecuadorian Siona portmanteau morphemes that mark subject agreement, tense and clause type were probably historically not portmanteau morphemes. These different functions can be connected to various features of the portmanteau morphemes. Subject agreement is

expressed by the complete morpheme and the switch of clause type is indicated by using a different set of subject agreement markers. For instance, the suffix *-hi* is used to mark third person singular masculine in assertive clauses and *-ki* is used to mark this same category and second person singular masculine in non-assertive clauses. Additionally, clause type distinctions are marked by distinct organizations of the paradigms; the suffixes in the distinct paradigms correspond to different subject agreement categories. For instance, the assertive suffix *-ko* marks a third person singular feminine subject, the non-assertive suffix *-ko* a second and third person singular feminine subject, and the dependent suffix *-ko* a singular feminine subject.

The use of distinct subject agreement suffixes in different clause types can be explained historically. The non-assertive and dependent subject agreement suffixes appear to have developed from nominal classifiers that were introduced in the verbal domain as nominalizers. Reportative, interrogative, and dependent verb morphology probably developed in different ways.

The reportative morphology seems to have arisen from indirect speech reports that contained a nominalized complementation clause. These indirect speech reports first underwent clause union and later on reanalysis of the subject agreement morphemes. The reportative suffix *-jã* seems to be the residue of the old speech verb or copula that was used in to introduce an indirect speech report. Language internal evidence for this reconstruction is that the nominal classifiers that can be used as nominalizers are similar or identical in form and function to the non-assertive subject agreement morphology that is used in reportative clauses. Additionally, these nominalizers are found throughout the language family. Further comparative evidence from other Tukanoan languages is found in Barasana (Jones & Jones, 1991, p. 28) and Kubeo (Chacón, 2009, p. 14; 2012). These languages have speech verbs that resemble the suffix *-jã* in Ecuadorian Siona. The reconstructed grammaticalization path of the reportative is summarized in the table below:

Table 8.1: The historical development of the reportative marking in stages

Stage	Form	Description
1.	* [[VERB ROOT-NLZ] say-SBJ.AGR] [[je'je-ki] jã-jĩ.] [[study-NLZ.M] say-OTH.PRS] 'They say that he studies.'	Nominalizations as complement clauses with a speech verb
2.	* [[VERB ROOT-NLZ] say] [[je'je-ki] jã] [[study-NLZ.M] say] 'He studies, they say.'	Loss of original agreement morphology
3.	* [[VERB ROOT-NLZ]-REP] [[je'je-ki]-jã] [[study-NLZ.M]-REP] 'He studies, they say.'	Reanalysis of the speech verb *jã as a reportative suffix -jã.
4.	* [[VERB ROOT-SBJ.AGR]-REP] [[je'je-ki]-jã] [[study-M]-REP] 'He studies.' (They say).	Reanalysis of the nominalizers as subject agreement morphology
5.	[[VERB ROOT-SBJ.AGR]-REP] [[je'je-ki]-jã] [[study-2/3S.M]-REP] 'He studies.' (They say).	Introduction of finite categories person and number in the subject agreement morphology

The interrogative seems to have undergone a similar development. The subject agreement suffixes probably also developed from nominalizations that were used as complement clauses. The difference is that these nominalizations were probably not complements of speech verbs. The nominalizations seem to have been used as complement clauses in (pseudo-)cleft constructions. These cleft constructions underwent a process of insubordination: the auxiliary verb in the main clause that accompanied the nominalization was deleted and then the subordinate verb remained in a main clause environment. There is both language internal and cross-linguistic evidence for this analysis. The language internal evidence is the same as in the case of the reportative: the nominalizers that were probably the

source for the subject agreement morphemes are still found in the language as nominal classifiers that can be used as nominalizers. The cross-linguistic evidence is that cleft constructions are common question strategies in languages from all over the world (Bhattacharya & Devi, 2004; Foulet, 1921; Givón, 2001a, pp. 308-310; M. Harris, 1978). Therefore, it is not inconceivable that the interrogative form has developed from a cleft construction. The reconstructed grammaticalization path of the interrogative marking is summarized in the table below:

Table 8.2: The historical development of the interrogative marking in stages

Stage	Form	Description
1.	* [[VERB ROOT-NLZ] COP-SBJ.AGR] [[je'je-ki] a-bi.] [[study-NLZ.M] COP-3S.M.PRS] 'Is it that he studies?'	The use of nominalizations in cleft constructions in questions
2.	* [[VERB ROOT-NLZ] Ø] [[je'je-ki] Ø] [[study-NLZ.M] Ø] '(Is it) that he studies?'	Loss of the main verb.
3.	* [VERB ROOT-SBJ.AGR] [je'je-ki] [study-M] 'Does he study?'	Reanalysis of the nominalizers as subject agreement morphology
4.	[VERB ROOT-SBJ.AGR] [je'je-ki] [study-2/3S.M.PRS] 'Does he study?'	Introduction of finite categories such as person and number in the subject agreement morphology

The dependent verb marking seems to have a similar historical background as the reportative and the interrogative marking. The subject agreement morphology that is found for some subject verbs in the present tense and for different subject verbs in the past and present tense developed from nominalizing classifiers. The different subject suffix *-na* probably developed from the goal case marker *-na*. The nominalizations in combination with the case marker were probably

first used as an oblique argument of a main clause. Later on, the construction lost its role as an argument and became a dependent verb. The nominalizing morphology was then reanalyzed as a subject agreement suffix and the case marker was reinterpreted as a different suffix marker. A similar origin can be proposed for the present tense same subject agreement suffixes, except that there is no residue of an old case marker. The past tense same subject verb suffix for present tense *-ni* may have developed from a case marker, as the different subject suffix *-na*. There is a case marker *-ni* in Ecuadorian Siona. However, there are also other possible origins for this suffix.¹⁶⁹

Language internal evidence for these reconstructions is that the dependent verb subject agreement suffixes closely resemble the nominalizers in the languages, as in the case of the reportative and interrogative paradigms. Further language internal evidence is that both switch reference suffix *-na* and *-ni* are also found as case markers in the language. Cross-linguistic evidence for this reconstruction is that nominalized verbs sometimes in combination with case markers have also developed into dependent verb morphology (see Cerrón-Palomino, 2000; Haiman, 1983, p. 117; Overall, 2011). The reconstructed grammaticalization path of the dependent verb marking in different subject contexts is summarized in the table below:

¹⁶⁹ It is also possible that the suffix *-ni* is a borrowing from Cofán, the neighboring language. This language has a case suffix *-ni* that is also used to mark subordinate clauses (Fischer & Van Lier, 2011). Another possibility is that it has always been a verbal suffix in the language. Possible evidence for this reconstruction is found in Máihìkì. In this Western Tukanoan language some verbs have alternate verb stems that end in *-ni* (Farmer, 2011, pp. 4-5).

Table 8.3: The historical development of the DS marking in stages

Stage	Form	Description
1.	* [[VERB ROOT-NLZ]-GOAL (...)] [[je'je-ki]-na (...)] [[study-NLZ.M]-GOAL (...)] '(To) the one who studies (...).'	The use of nominalizations as arguments of a main clause
2.	* [[VERB ROOT-NLZ]-DS (...)] [[je'je-ki]-na (...)] [[study-NLZ.M]-DS (...)] 'He studies (...).'	Reanalysis of the case marker as different subject marker
3.	* [[VERB ROOT-NLZ]-DS (...)] [[je'je-ki]-na (...)] [[study-M]-DS (...)] 'He studies (...).'	Reanalysis of the nominalizers as subject agreement morphology
3.	[VERB ROOT-SBJ.AGR-DS] (...) [je'je-ki-na] (...) [study-S.M.PRS] (...) 'He studies (...).'	Introduction of finite categories such as number in the subject agreement morphology

Whereas reportative, interrogative, and dependent subject agreement morphology seems to have developed from nominalizing classifiers, the assertive subject agreement morphology can be reconstructed as the traditional subject agreement morphology in the language. There is comparative evidence for this reconstruction, namely, most of the Ecuadorian Siona assertive subject agreement morphemes can be found throughout the language family. The main exception is the third person singular feminine suffix *-ko*. This suffix was probably introduced into the paradigm under the influence of non-assertive and dependent paradigms. Since the suffix *-ko* is used in the non-assertive paradigms and in the dependent paradigms to mark some type of feminine subject, the subject marker *-ko* was also introduced in the assertive paradigms to mark a third person singular feminine subject by analogy.

The reconstruction I have presented suggests up to this point that the distinct subject agreement paradigms for assertive, reportative, interrogative and dependent verbs emerged due to various reanalysis processes of subordinate verbs. However, this proposal does not explain

why these morphemes also express tense. The marking of tense can generally be found as morphophonological marking on the suffix that affects only the consonant in the onset of the suffix. The morphophonological phenomenon that marks tense is a fortis - lenis distinction. For instance, fortis consonants are found in present tense for non *-i* verbs, in present tense assertive, interrogative and reportative for *-i* verbs, and in past tense for *-i* verbs. Lenis consonants are found in the present tense for bound verbs and dependent and conjectural *-i* verbs, and in the past for non *-i* verbs.

This fortis - lenis distinction is found throughout the Tukanoan language family under specific conditions. It depends on the preceding morpheme whether a fortis or lenis consonant will be used. Some preceding morphemes prevent the following consonant from leniting.¹⁷⁰ Some Eastern Tukanoan languages display tense morphemes that have this quality of preventing the next consonant to lenite. It is imaginable that Ecuadorian Siona also used to have tense markers that had this same effect. These tense markers have disappeared and all that is left now is reminiscent of this morphophonological effect that marks tense.

The morphophonological tense marking system is more complex because the marking is different for the distinct verb classes. There are three verb classes consisting of the non *-i* verbs, the *-i* verbs and the bound verbs. The differences between the three verb classes can be explained historically. The current verb classes probably derive from an older semantic split between stative and eventive verbs. The stative verbs were inherently imperfective and needed additional morphology in order for them to be used with a past tense reference. The eventive verbs on the other hand were inherently perfective and needed additional morphology in order to be used with present tense reference. This system is still found in the Eastern Tukanoan language Kubeo and there is some cognate morphology; eventive verbs are marked with the imperfective suffix *-i* in order to be used in the present tense (Chacón, 2009, 2012). Ecuadorian Siona has a similar imperfective suffix *-i*. This suffix, however, is not only used with eventive verbs. The *-i* verb class to which the imperfective suffix is applied consists of both stative and eventive verbs.

The distinction between *-i* verbs and non *-i* verbs is no longer semantic. The distinction is currently based on the prosodic structure of the stem. The *-i* verbs consist of monomoraic stems and the non *-i* verbs

¹⁷⁰ Gomez-Imbert (1997, 2004) proposes that these preceding morphemes have a latent [t] in their coda. This [t] is not pronounced, but causes the following consonant to devoice.

consist of bimoraic stems. What seems to have happened is that monomoraic verbs maintained the imperfective suffix *-i* in order to form bimoraic stems. In non-imperfective contexts, these verbs show other strategies in order to form bimoraic stems. One strategy is that the monomoraic roots phonologically integrated the subject agreement morphology in their stem in order to form a bimoraic stem. Another strategy is the introduction of an epenthetic syllable *-ti* that is used before the counterfactual bound root *-da'*.

The bimoraic verbs did not maintain the imperfective suffix *-i*. Because of this change, the stative - eventive distinction was lost and verbs were classified based on their prosodic characteristics. So due to a phonological process, namely the loss of the imperfective suffix *-i*, a semantic distinction was first obscured and then disappeared. Only the bound copula *-a* and future verb *-si* seem to remain from the stative verb class.

The final diachronic question that remains is whether we can explain the differences between the Eastern Tukanoan languages and Ecuadorian Siona historically. The answer to this question is yes. Although the evidential and interrogative marking systems in Eastern Tukanoan languages and Ecuadorian Siona have similar origins, there seem to be some differences in the development of the marking that have caused that the languages have distinct systems. A similarity is that the verbal systems seem to have developed in both Eastern Tukanoan languages and Ecuadorian Siona from complex verbal constructions. Malone (1988) provides the following construction as a source for the portmanteau suffixes that express tense, evidentiality, and subject agreement in Tuyuka:

- (3) [[VERB ROOT-NLZ] AUX-SBJ.AGR].

The auxiliary verb and the subject agreement morphology in (3) mostly fused in Tuyuka and therefore, the morphemes have become complex portmanteau suffixes that cannot be teased apart anymore. The auxiliary verbs in these languages have been reanalyzed as markers of evidentiality.

The main difference between the Ecuadorian Siona clause typing system and the Eastern Tukanoan systems is that the languages developed different interrogative markings. The interrogative marking developed in all these languages from nominalizing morphology. The difference is, however, that Ecuadorian Siona developed a complete subject agreement system from different nominalizers, whereas Eastern

Tukanoan languages only developed one interrogative marker from the nominalizer *-ri/-ti*. This marker replaces the subject agreement morphology that is found in declarative systems. Since the evidential interpretation is mostly conveyed by the morphemes that were historically auxiliary verbs and not by the subject agreement morphology, it is possible to combine the evidential marking with the interrogative marking. Therefore it is possible to express evidentiality in questions and it is not possible, at least in most cases, to analyze the evidentials in Eastern Tukanoan languages as distinct clause types, in contrast to the reportative clause type in Ecuadorian Siona.

8.3 Implications for linguistic theory

The findings in this dissertation, as presented in the previous section, have various implications for linguistic theory. This work provides new insights, especially, in the notions of evidentiality and clause-typing. The implications for our understanding of the nature of evidentiality are discussed in subsection 8.3.1 and the implications for our understanding of clause-typing and clause types in subsection 8.3.2.

8.3.1 Implications for the study of the nature of evidentiality

It is argued in this dissertation that evidentiality is not an independent linguistic category. Various scholars have previously argued that evidential interpretations can emerge in various linguistic domains. It was shown for various languages that evidential interpretations arise in the temporal or aspectual domains (Chung, 2005, 2007; Faller, 2003, 2004; Kalsang et al., in press; Lee, 2011). Evidential interpretations can also emerge in the modal domain, as shown by various scholars (De Haan, 2001b; Matthewson et al., 2007; McCready & Ogata, 2007; Peterson, 2010; Von Stechow & Gillies, 2010 amongst others).

This dissertation has shown that evidential interpretations can arise within yet another domain: Ecuadorian Siona data provide good evidence that evidential interpretations can arise in the domain of sentential force. That is, the reportative interpretation arises from the semantics of a specific clause type, namely the *report*. Reports are clause types in which speakers assign the epistemic authority to a non-speech act participant, as mentioned above. As such, *reports* contrast with *assertions* on the one hand, in which speakers assign the epistemic authority to themselves, and with questions on the other, in which speakers assign the epistemic authority to the addressee. The effect of

assigning the epistemic authority to a non-speech act participant is that speakers present the information as coming from a third party. As a result, the reportative clause type can be analyzed as an evidential.

The fact that Ecuadorian Siona has a verbal form that assigns a clause type to a clause and simultaneously marks evidentiality suggests that this phenomenon may be found among languages at large. An example of a language that may have a similar system is Shipibo-Konibo. This language has a system of clitics that consists of a direct evidential clitic *-ra*, a reportative clitic *-ronki*, a reportative clitic *-ki* and an interrogative clitic *-ki*. These clitics mutually exclude each other (Valenzuela, 2003). The evidential clitics may also function as clause-typing elements just as the interrogative clitic. For instance, the use of the direct evidential *-ra* is very similar to the use of the assertive clause type in Ecuadorian Siona. It is, therefore, possible that the direct evidential in Shipibo-Konibo can also be analyzed as an assertive clause-typing element and that it conveys that the speaker is the epistemic authority in this type of sentence. The reportative clitics *-ronki* and *-ki* may express that a non-speech act participant is the epistemic authority in these clauses. This possible analysis should be tested. It is likely that there are also other languages in the world that have a similar system.

The Ecuadorian Siona clause-typing system also has properties in common with systems such as the Cuzco Quechua system of evidential clitics as described by Faller (2002). For instance, the reportative clitic *-shi* is used in declarative sentences in order to show that the speaker is not the epistemic authority in the sentence. However, the Quechua evidential clitics cannot be analyzed as clause-typing elements. Since the clitics can occur in both declarative and interrogative clauses, they do not seem to be clause-typing elements themselves; the clitics only modify the sentential force of the clause type. Therefore, these morphemes are analyzed as clause type modifiers, following Portner (2006). This suggests that the Quechua evidentials operate within the same domain as the Ecuadorian Siona reportative: they both are clause-type evidentials. The difference is that the Ecuadorian Siona reportative is itself a clause-typing element, while the Quechua clitics are only clause-type modifiers.

The Ecuadorian Siona evidentials provide additional evidence that evidentiality is a category that is parasitic on other linguistic categories. Both structurally and semantically, there are many differences among evidentials in the languages of the world. These morphemes and constructions all express the access to the expressed information, but the domain within which the evidential operates will

determine how this evidential interpretation arises. Both the structural and the semantic behavior provide indications about the domain within which the evidential operates. Researchers in evidentiality should take into account both the morphosyntactic system to which the evidential belongs and its semantic peculiarities when analyzing the expression of evidentiality in a language.

8.3.2 Implications for the study of clause-typing

Although this thesis set out to obtain more insights in the nature of evidentiality, the Ecuadorian Siona data also provided a new perspective on the nature of clause-typing and sentential force. I have shown that in addition to the major clause types assertive, interrogative and imperative, there is another clause type, namely the report, as mentioned in the previous subsection. The sentential force of assertive clauses is assertion, of interrogative clauses is asking and of imperative clauses it is inquiring (Portner, 2004, 2009). In reportative clauses speakers only present information that they heard from someone else, they do not assert this information. These clause-types and their corresponding sentential force are summarized in table 8.4 below:

Table 8.4: An overview of the major clause types and associated sentential force

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

This dissertation has also made a contribution to the fine-grained semantic structure of clause-types. Not only the function of the clause type seems to be marked, but also its authority. When the function of the clause type is the transmission of knowledge, it has an epistemic authority. This term was first used in the literature on languages with egophoric systems in order to describe why first person in declarative clauses and second person in interrogative clauses are marked by the same morphology (Curnow, 1997, pp. 209-217; 2002; Hargreaves, 1990, 1991, 2005). The idea behind this system is that the marking agrees with the holder of the knowledge, which is the speaker in declarative clauses and the addressee in interrogative clauses.

The role of epistemic authority is also present in non-egophoric systems, but is not overtly marked. When speakers make assertions in any language, they assign the epistemic authority to themselves. When they ask a question, they assign the authority to the addressee. When a language has reports as a separate clause type, the speaker assigns the epistemic authority to a non-speech act participant. As such, the speaker is able to transfer knowledge without making a claim about its veracity. Imperatives do not have an epistemic authority since they do not convey the function of transmitting information. Nonetheless, there is an authority in this clause type: the speaker takes the deontic authority and requires the addressee to do something. The clause types and their corresponding types of authority are presented in the table below:

Table 8.5: The main clause types and associated authority

Clause type	Type of authority	Authority
Assertive	Epistemic	Speaker
Interrogative	Epistemic	Addressee
Reportative	Epistemic	Non-speech act participant
Imperative	Deontic	Speaker

8.4 Issues for future research

This dissertation has raised various questions for future research. First of all, there are still many questions with respect to the fine-grained analysis of the Eastern Tukanoan evidential systems. It is not clear within which domain the evidentials in these languages operate. It is possible that not all evidential operate within the same domain. More semantic fieldwork needs to be conducted on these languages to find answers to these questions. Such research will not only provide a thorough description of these evidential systems, but it will surely provide further insights in the nature of evidentiality.

A second line of research would be the detailed study of the semantic elements that are involved in clause-typing. Clause types convey the grammatically marked function of a sentence. The question remains what semantic elements contribute to this function. It was argued that the role of the epistemic or deontic authority is important for the interpretation of the function of a clause type. Furthermore, the study of the interaction between evidentiality and sentential force has shown that other roles also seem to be important. For instance, when the reportative *-shi* in Cuzco Quechua is used to modify the sentential force of the clause, it modifies a specific element of the interpretation of

the clause type. When it is used in declarative clauses, it shifts the epistemic authority from the speaker to a non-speech act participant, similar to what a reportative does in Ecuadorian Siona. However, when a reportative is used to modify content questions in Cuzco Quechua, there is not always a shift of the epistemic authority. The epistemic authority remains, in some cases, with the addressee. The role that is shifted in these cases is the role of the inquirer; it is shifted from the speaker to a non-speech act participant. The fact that the role of the inquirer can be manipulated suggests that this role also is important for the interpretation of clause types. It is possible that other roles can be identified for specific clause types as well. A detailed study of the different components that construct the grammatically marked function of a clause will provide a better understanding of the concept of clause-typing.¹⁷¹

A further line of research lies in the study of how different evidential meanings arise in different languages. Evidential interpretations can arise in different domains. Therefore, the emergence of evidential interpretations should be studied by identifying the domain in which they operate. Both structural and semantic indications can be found for this in languages. The morphosyntactic system in which the evidential occurs should always be taken into account. If an evidential occurs in a tense system it is likely to be a tense operator. The semantic behavior of an evidential also provides indications of the domain within which it operates. For instance, if an evidential can be used in declarative clauses when the speaker knows the information to be false, it is likely that the evidential operates within a sentential force domain. The study of both the morphosyntactic and the semantic behavior of evidentials can provide more insights in the nature of evidentiality.

¹⁷¹ A similar proposal was made by Beyssade and Maradin (2006) who propose that both the role of the speaker and of the addressee should be studied in order to understand the function of a sentence. A difference is that these authors analyze illocutionary acts instead of clause types.