SAY-complementizers and indexical shift in Poshkart Chuvash

With emphasis on verbs of hearing

Abstract

Although SAY-complementizers have been extensively documented, the question of what forms are used in this function and what their properties are has received less attention. This paper discusses the complementizer *tenine* in a dialect of Chuvash (Turkic), an action nominalization of SAY, used with verbs of hearing and existing alongside the general complementizer *teze*, based on the same-subject converb. The main puzzle concerns the differences between *teze* and *tenine* related to the controller of shifted first person (*teze* is disallowed with verbs of hearing, but only in shifted complements). An account of this restriction based on three constraints on shifted first person, *teze*-clauses and SAY-complements is offered. An alternative account whereby *tenine* is (synchronically) a nominalization is discussed. The findings highlight the importance of the form of the complementizer and the choice of the controller of shifted 1st person in SAY-based complementation and extend the typological parameters of indexical shift.

Keywords: Turkic, SAY-complementizers, verbs of hearing, indexical shift, shifted agreement, action nominalizations

1. Introduction

The emergence of complementizers from generic verbs of speech (SAY) has been extensively documented in grammaticalization studies from both typological and areal perspectives (Heine & Kuteva 2002:261ff, 2007:236ff; Güldemann 2008; Matić & Pakendorf 2013, a.o.). Several grammaticalization paths involving SAY have been established, showing that SAY may acquire a number of different functions as a result of grammaticalization, including a quote marker, a complementizer, a marker of adjunct clauses, a marker of evidentiality, an auxiliary verb, a marker of metalinguistic use (in naming constructions) and others. Interestingly, the research on grammaticalized SAY has primarily focused on its *functions*, whereas *forms* of SAY that undergo grammaticalization (e.g., converb, participle, etc.) and especially their specific functions, have arguably received less attention in the literature. Although Matić & Pakendorf (2013) list several finite and non-finite verb forms of grammaticalized SAY in languages of Eurasia, their list is not meant to be exhaustive, and, more importantly, they do not explicitly discuss which forms are possible in which function. In particular, their typological database contains little or no data on whether participles and (participle-based) action nominalizations of SAY, can be used as complementizers.

This limitation can be explained by the fact, acknowledged by Matić & Pakendorf (2013), that some forms of SAY are more appropriately analyzed as (merely) *conventionalized*/*non-canonical* as opposed to fully grammaticalized in the sense that they may have (partly) lost semantic compositionality and extended to new contexts but, at the same time, have not undergone grammaticalization along other grammaticalization parameters (see Heine & Narrog 2010) such as decategorialization (e.g., loss of verbal properties) and phonetic reduction. As Matić & Pakendorf note, such instances of non-canonical forms of SAY may be harder to identify as such due to their intermediate status. They are also more likely to be omitted in a grammatical description (e.g., due to their less extensive distribution), which might explain why there is little discussion of these forms in the typological literature, including Matić & Pakendorf 2013 itself.

This paper aims to fill this gap by bringing into light one such conventionalized form in the Poshkart dialect of Chuvash (Turkic), namely, *tenine*, the past participle-based action nominalization of the verb *te* 'say' (in the objective case), illustrated in (1a). *Tenine* functions as the specialized form of the SAY-complementizer used with verbs of hearing and other similar verbs, and it exists alongside the more general SAY-complementizer *teze* used with verbs of speech and thought, which is the same-subject converb of *te* 'say', illustrated in (1b).[1]

[1] Henceforth the forms *teze*, *tenine* and other SAY-based complementizer-like forms in the examples are always fully glossed for the reader's convenience, without any theoretical commitments as to their analysis.

(1) a. *ep* *poskil-den* [*maʂə* *san-ran* *ëne* *il-et*
1SG.NOM neighbor-ABL Masha you-ABL cow get-NPST[3SG]
te-n-in-e] *ëlt-r-ëm*.
say-PST.PTC-POSS3-OBJ hear-PST-1SG
'I heard from [my] neighbor that Masha will buy a cow from you.'

b. *lionilə* [*boris* *san-ba* *ëɕl-et* ***te-ze***] *kala-ʁʲ-ə*.
Lionila Boris 2SG-INST work-NPST[3SG] say-SIM.CVB say-PST-3SG
'Lionila said that Boris will work with you.'

The main argument in this paper concerns the distributional and semantico-syntactic differences between *teze* and *tenine*, related to the interpretation of indexicals (specifically, 1st person agreement) in complement clauses introduced by these forms. It is cross-linguistically common for indexicals in embedded clauses to be interpreted relative to the original/reported speaker or attitude holder, as in traditional direct speech in European languages (see, e.g., Comrie 1985:107ff, Coulmas 1986). Following recent usage, I will refer to such indexicals as *shifted* (see the terminological discussion in Munro et. al. 2012). Indexical shift is a more general phenomenon than traditional direct speech as indexicals may take the original speaker perspective (i.e., be shifted) even in clauses that otherwise pattern with traditional indirect speech or that are neutral with respect to this distinction as, e.g., in languages which do not distinguish between these two forms of speech (see Munro et. al. 2012 and Spronck & Nikitina 2019 for further discussion).

Although the term "indexical shift" is primarily associated with a relatively new field of research in formal semantics/generative grammar which has been focused on highly theoretical accounts of indexical shift in terms of so-called monster operators (see, a.o., Schlenker 2003, 2011, Anand & Nevins 2004, Shklovsky & Sudo 2014), in recent years this field has shifted to a more data-oriented approach, combining theoretical work with a serious interest in cross-linguistic variation in the domain of indexical shift (Deal 2020, Sundaresan 2018). While this paper is not concerned with formal accounts of indexical shift, it aims to contribute to the growing body of typological work on indexical shift (potentially informing both monster-based and other theoretical accounts) by drawing attention to those parameters of indexical shift that have received less attention in the literature, specifically the choice of the controller for shifted 1st person and the form of the (SAY-)complementizer (as well as their interaction).

The empirical core of the paper is based on a previously not described pattern of shifted 1st person in SAY-based complements of verbs of hearing. Verbs of hearing are interesting from the point of view of the controller choice for the following reason. Whereas with verbs of speech and thought, the original speaker/attitude holder (i.e., the author participant), which controls shifted

1st person, aligns with the grammatical subject, with verbs of hearing the author participant (the original speaker) is realized as the ablative source while the subject realizes the goal/recipient of the communicative act. Because of this non-canonical alignment, the controller choice with verbs of hearing is in principle underdetermined and depends on a particular strategy a language may choose to resolve the syntax-semantic mismatch. A priori a language may choose: (a) a "semantic" strategy, i.e., control by the ablative source (the original speaker); (b) a "syntactic" strategy, i.e. control by the grammatical subject, which would presumably coercion of the subject into the attitude holder (cf. Özyıldız et al. 2018); (c) a union of the two; or (d) neither option. We may also expect (e) the use of some special, ad-hoc strategy. Although there is little cross-linguistic data on indexical shift with verbs of hearing, at least options (b), for Uyghur (see Sudo 2010) and Tsez (see Polinsky 2015), and option (c), for Turkish (Özyıldız et al. 2018), have been documented.

Poshkart Chuvash appears to be different in this respect, having some combination of strategies (a) and (e). Specifically, with verbs of speech and thought the controller for shifted 1st person is the subject and the complementizer has the default converbial form *teze*, as in (2a).[2] By contrast, with verbs of hearing the controller is the ablative source and the complementizer takes the nominalized form *tenine*, as in (2b). Interestingly, the change in the form of the complementizer is obligatory only in constructions with indexical shift, as otherwise both complementizers are in principle possible (although *teze* is slightly dispreferred), as shown in (2c).

(2) a. (*sonʲə,*) ***boris*** *man-a* [*san-ba* *ɵɕl-e-**p*** *te-ze*] *kala-rʲ-ə.*
Sonya Boris 1SG-OBJ 2SG-INST work-NPST-1SG say-SIM.CVB say-PST-3SG
'(Sonya,) Boris$_1$ told me that he$_1$ will work with you.'

b. (*sonʲə,*) *ep* ***boris-ran*** [(*vəl*) *san-ba* *ɵɕl-e-**p***
Sonya 1SG.NOM Boris-ABL 3SG.NOM 2SG-INST work-NPST-1SG
{*te-n-in-e* / **te-ze*}] *ɵlt-r-ɵm.*
say-PST.PTC-POSS3-OBJ say-SIM.CVB hear-PST-1SG
'(Sonya,) I heard from Boris$_1$ that he$_1$ will work with you.'

c. (*sonʲə,*) *ep* *maʂə-ran* [*Boris* *san-ba* *ɵɕl-et*]
Sonya 1SG.NOM Masha-ABL Boris 2SG-INST work-NPST[3SG]
{*te-n-in-e* / (?)*te-ze*}] *ɵlt-r-ɵm.*
say-PST.PTC-POSS3-OBJ say-SIM.CVB hear-PST-1SG
'(Sonya,) I heard from Masha that Boris will work with you.'

[2] Examples in (2a)–(2c) deliberately contain incomplete/partial shift with the 2nd person pronoun *sanba* taking the current speaker perspective (and would be described as so-called *Shift Together* exceptions in generative approaches). See section 3 for discussion.

The theoretical contribution of this paper is to offer an account of the pattern in (2), i.e., of the unacceptability of *teze* in the presence of (ablative-controlled) shifted 1st person under 'hear'. Note that this unacceptability cannot be attributed to a ban on ablative control of shifted 1st person in general (as it is possible with *tenine*) nor to a general incompatibility of *teze* with 'hear'. Thus, ablative control appears to be banned specifically for the *combination* of shifted 1st person with *teze*. Yet, it would be undesirable to encode this restriction as a specific construction. Although there is nothing conceptually wrong with this move, the challenge I take up in this paper is to offer an account of (2) that would appeal only to *independent* properties of *teze* and shifted 1st person.

In a nutshell, the proposed account is based on two assumptions: (i) the control of shifted 1st person in Poshkart Chuvash is in general semantic, i.e., original-speaker-oriented; whereas (ii) *teze* is in general subject-oriented in the sense that it requires the "author" of the embedded proposition to be aligned with the grammatical subject (independently of the presence of shift). The unacceptability of *teze* in (2b), then, arises as a result of the conflict between (i) and (ii). The conflict is resolved by the choice of a different form of the complementizer, namely *tenine*. The paper also discusses an alternative account, according to which *tenine* is synchronically not a complementizer but a (participle-based) action nominalization with a null subject controlling shifted 1st person so that control is always syntactic (subject-oriented).

The paper is mainly based on elicited data collected by the author in the village of Maloe Karachkino (Poshkart), Chuvash Republic, Russian Federation in 2017–2019. Examples in Poshkart Chuvash are occasionally supplemented with examples in Standard Chuvash. All examples of the latter kind come from the Bilingual Chuvash-Russian Corpus (http://ru.corpus.chv.su/).

The paper is structured as follows. Section 2 provides some background on SAY-complementizers in Poshkart Chuvash. Section 3 contains some general discussion of indexical shift in Poshkart Chuvash. Section 4 presents the main puzzle and provides an account of this puzzle. Section 5 discusses an alternative account in terms of syntactic decomposition of the SAY-complementizers. Section 6 concludes.

2. SAY-complementizers in Poshkart Chuvash

2.1. Poskart Chuvash

Poshkart Chuvash (henceforth PC) is a variety of Chuvash (< Turkic) spoken in the Maloe Karachkino (Poshkart) village with about 400 inhabitants located in the Yadrin district of the

Chuvash Republic (the Volga river region of Russian Federation).[3] PC is traditionally identified as a distinct dialect of Chuvash with a number of phonological and morphosyntactic features distinguishing it from the standard variety (see, e.g., Ašmarin 1898:344–392). Most if not all speakers of PC understand Russian and have at least some command of Standard Chuvash.

To facilitate further discussion, I will mention a few basic facts about PC morphosyntax. As typical of the Turkic languages, PC is an agglutinative language with vowel harmony. It has a rich case system with differential accusative marking; but there is no morphological distinction between dative and accusative case, which are glossed as a (single) objective case. Possessive marking is very impoverished. The only fully productive marker is the number-neutral 3rd person marker, which is used not only to mark the head noun with genitive and other dependents, but also as an optional marker of definiteness and as a nominalizer of adjectives/participles, as in 'the big/crying one' (see Logvinova 2019a for details). The 1st and 2nd person markers only exist in the singular and are usually omitted or replaced with the 3rd person marker.[4]

Finite verb forms agree in person and number with their subjects. The present and the future are not morphologically distinguished and are glossed as non-past. A number of non-finite forms including the simultaneous converb *-sA* and the past participle *-nƏ* can be used as predicates of independent clauses (without subject-verb agreement).[5] Aspectual distinctions are commonly expressed by constructions with the *-sA* converb followed by some light verb.

The basic word order is SOV, although some complements, especially clausal complements, can be more or less freely placed before the subject or after the verb for the purposes of information structure.

2.2. (Participle-based) nominalized clauses

As is typical of the Altaic languages, complement clauses are expressed either by non-finite clauses or by clauses introduced by SAY-complementizers (see below). The most common non-finite strategy, which will be important for further discussion, are nominalized clauses headed by participle-based action nominalizations (referred throughout the paper as nominalized clauses and (action) nominalizations), illustrated in (3a)–(3b).[6] Participle-based nominalizations are fully

[3] The population size data come from the 2010 census cited in Chuvash Wikipedia (https://cv.wikipedia.org/wiki/%D0%9F%D1%83%D1%88%D0%BA%C4%83%D1%80%D1%82_(%D0%95%D1%82%C4%95%D1%80%D0%BD%D0%B5_%D1%80%D0%B0%D0%B9%D0%BE%D0%BD%C4%95).

[4] In addition, the 1st person marker is lexically restricted to nouns expressing family relations.

[5] Alterable vowels in suffixes are indicated by capital letters (*A* stands for *a* or *e*; *Ə* for *ə* or *ë*). Suffixes with alterable obstruents are given with a devoiced alternant, which becomes voiced in an intervocalic position (e.g., *-sA* stands for *-sA* or *-zA*).

[6] Other non-finite complementation strategies include: (a) infinitival complements, used with control verbs; (b) complements headed by the *-sA* converb, used with a number of aspectual and modal predicates; (c) complements headed by the unmarked future participle, used with a few modal and volitional predicates; and (d) complements headed by the anteriority converb *-sAn*, used with some subject experiencer and evaluative predicates. See Kožemjakina 2017 for details, and also Khanina, ms for Standard Chuvash.

regular and can be derived from any verb; they also retain sentential dependent-marking (see Koptjevskaja-Tamm 1993), as opposed to other kinds of (more lexical) action nominalizations in PC, which have dependent-marking typical of non-derived NPs.[7]

(3) a. [*es* *pørt* *tu-za* ***lart-n-in-e***] *peʲə* *kor-za*.
2SG.NOM house do-SIM.CVB put-PST.PTC-POSS3-OBJ Petya see-SIM.CVB
'Peter saw that you had built a house.'

b. *ep* *poskil-den* [*maʂə* *san-ran* *ëne* ***il-es-in-e***]
1SG.NOM neighbor-ABL Masha you-ABL cow get-FUT.PTC-POSS3-OBJ
ëlt-r-ëm.
hear-PST-1SG
'I heard from [my] neighbor that Masha will buy a cow from you.'

Participle-based action nominalizations are derived from the past participle *-nƏ* (expressing both anteriority or simultaneity), cf. (3a), the future participle *-As*, cf. (3b), or the debitative participle *-mAlA*, which express the respective tense/modality (aspectual distinctions are expressed with light verbs, cf. (3a)). On top of the participial morphology, they take (nominal) possessive and case suffixes. They also have roughly the distribution of NPs. Although most commonly they appear in the objective case, cf. (3a)–(3b), they can also appear in other cases including nominative (cf. (13a)–(13b)), instrumental (cf. (15a)–(15b)) and causal (cf. (16)), and also as objects of postpositions, as in (4). The only possessive suffix that occurs in participle-based nominalizations is the 3rd person marker, which is used for all person/number combinations, cf. (3a). The possessive marker is largely lexicalized and is almost totally conditioned by the case and participial morphology on the nominalization in a rather idiosyncratic way.[8] It is obligatory in the nominative, instrumental and the objective case (with the exception of the future participle, where it is optional) and is optional (or non-occurring) with the other cases.[9]

(4) *maʂə* [*xəj-n* *koʐak* ***tar-nə*** ***ɕindɛn***] *kala-rʲ-ə*
Masha self-GEN cat run-PST.PTC about say-PST-3SG
'Masha told [me] about the fact that her own cat has run away.'

Nominalized clauses are used as a complementation strategy with a wide range of verbs expressing cognition and perception as well as with emotive and evaluative predicates. They are

[7] As is the case with independent clauses, the arguments of (participle-based) nominalized clauses, including the subject can be freely dropped in appropriate discourse conditions.
[8] This is also reflected by the fact that descriptive grammars sometimes treat the combination of the participle with the possessive marker (in Standard Chuvash) as a single morpheme (see Khanina, ms).
[9] See Kožemjakina 2017.

also possible verbs of communication such as *kala* ‘say’ (with which it is translated as ‘announce’) and others although clauses with SAY-complementizers are more common in this case. A partial list of predicates taking nominalized clauses is given in (5).

(5) Predicates used with nominalized clauses

anlan ‘understand’, *asta* ‘remember’, *ëlt* ‘hear’ (3b), *ënen* ‘believe’, *ëtle* ‘listen’, *jorat* ‘like’, *kala* ‘say’, *pël* ‘know’ (9a), *pëlder* ‘announce, mean’, *kët* ‘wait’, *kilëʂ* (15a), *kor* ‘see’ (3a), *man* ‘forget’, *moxta* ‘praise’, *moxtan* ‘boast’ (15b), *ozal* ‘bad’ (13b), *savən* ‘be glad’ (9b), *ʂan* ‘believe’ (11b), *tërës* ‘true’ (13a), *xəra* ‘be afraid’, *xojxra* ‘be sad’ (16).

2.3. The lexical (contentful) verb te *‘say’*

Apart from nominalized clauses, the other major complement type is finite (sentence-like) clauses, introduced either: (a) by non-finite forms of the verb *te* ‘say’ (*teze*, *tenine*, etc.) functioning as a (SAY-)complementizer (see sections 2.4–2.6); or (b) directly by the lexical verb *te* ‘say’, without a complementizer, as illustrated in (6a)–(6c). *Te* ‘say’ is the only verb that can (and must) take finite complement clauses directly as other verbs require a complementizer, as shown in (6a), cf. (1b).[10] In other respects, the lexical verb *te* ‘say’ behaves as an ordinary verb. For example, it is compatible with a wide range of morphological markers, including negation and imperative, and can take dative arguments, as shown in (6b)–(6c).[11]

(6) a. *lionilə* [*boris* *san-ba* *ëɕl-et* (**te-ze*)] ***te-rʲ-ë***.
Lionila Boris 2SG-INST work-NPST[3SG] say-SIM.CVB say-PST-3SG
‘Lionila said that Boris will work with you.’

b. [*san* *koʐak* *sumarlan-za* *kaj-nə*] ***t-etɕë***.
your cat get.sick-SIM.CVB go-PST.PTC say-NPST.3PL
‘Your cat has got sick, they say.’

[10] It is fairly common for languages with non-canonical SAY, at least in Asia and Africa, to use a SAY-complementizer with a different verb meaning ‘say’, thus presumably avoiding the otherwise arising doubling/haplology (see, e.g., Matić & Pakendorf 2013, Lord 1993). Nonetheless, some languages do allow such doubling (cf. Matić & Pakendorf 2013:410).

[11] The lexical verb *te* ‘say’ has a further difference from other complement-taking verbs, namely, it requires adjacency to the complement clause, as shown in (i), cf. (6a). One of the reviewers suggests that the adjacency requirement might be related not to the lexical property of *te* ‘say’ but to an obligatory deletion of the complementizer (see the previous comment) under adjacency to V. Exploration of this interesting possibility is left for future work.

(i) ??[*boris* *san-ba* *ëɕl-et*] *lionilə* ***te-rʲ-ë***.
Boris 2SG-INST work-NPST[3SG] Lionila say-PST-3SG
‘Lionila said that Boris will work with you.’.

c. *vasʲə* *man-a* [*sonʲə-ba* *ëɕl-e-p*] ***te-m-en***.
Vasya 1SG-OBJ Sonya-INST work-NPST-1SG say-NEG-RES.PTC
'Vasya didn't tell me that he was going to work with Sonja.'

2.4. Clauses headed by teze

The most common form of the SAY-complementizer is *teze*, which is morphologically the same-subject simultaneous converb of *te* 'say' (cf. (29)).[12] Clauses headed by *teze* (henceforth, *teze*-clauses) are used with various verbs of speech and thought, including such frequent verbs as *kala* 'say' (cf. (1b)) and *ʂotla* 'think', as shown in (7). As we saw in (2c), *teze*-clauses are also possible with verbs of hearing, although speakers generally prefer clauses headed by *tenine* in this case (see section 2.5.1). A partial list of verbs taking *teze*-clauses is given in (8).

(7) [*ulʲ-ə* *pilëk* *il-et* ***te-ze***] *aməʂ* {***ʂotl-at*** /
son-POSS3 five get-NPST[3SG] say-SIM.CVB mother.POSS3 think-NPST[3SG]
ʂan-at}.
hope-NPST[3SG]
'Mother thinks/hopes that her son will get an A ("five").'

(8) Verbs compatible with *teze*-clauses
ëlt 'hear (2c), *ënenter* 'persuade, assure', *kala* 'say' (1b), *moxtan* 'boast' (15b), *pëlder* 'announce', *ʂan* 'hope, believe' (7a), *ʂantar* 'promise, assure', *ʂotla* 'think' (7a).

Teze-clauses are usually incompatible with verbs that presuppose the truth of their complement, including factive verbs of cognition and perception such as *pël* 'know', as in (9a), *kor* 'see' (cf. (3a)), *anlan* 'understand', *asta* 'remember' and others, and emotive factive verbs such as *savən* 'be happy', as in (9b), and others. All of these verbs normally take clauses nominalized clauses in the objective case.

(9) a. *ep* *eki-ren* [*on* *koʐagʲ-ə* {*tar-n-in-e* /
1SG.NOM sister-ABL 3SG.POSS cat-POSS3 run-PST.PTC-POSS3-OBJ
tar-za* ***te-ze*}] ***pël-d-ëm***.
run-SIM.CVB say-SIM.CVB know-PST-1SG
'I learned from [my] sister that her cat has ran away.'

[12] *Teze* can also be used to introduce purposive converbial clauses, as in (i). Such uses are not discussed in this paper.
(i) *Boris* [*sonʲə-ba* *ëɕl-es* ***te-ze***] *kil-ze.*
Boris Sonya-INST work-FUT.PTC say-SIM.CVB come-SIM.CVB
'Boris went to the school to work with Sonya.'

b. *petʲə* [*pilëk* {*il-në-zʯn* / ??*il-d-ëm* ***te-ze***}]
Petya five get-PST.PTC-CSL get-PST-1SG say-SIM.CVB
savən-at.
be.glad-NPST[3SG]
'Petja is glad that he has got an A ("five").'

2.5. Clauses headed by (action) nominalizations of te *'say'*

An interesting feature of PC, which is of particular relevance to this paper, is that SAY-complementizers can be based not only on converbial forms of SAY (*teze*) but also on participial forms, including (participle-based) action nominalizations of *te* 'say' and participles proper, i.e. heads of noun-modifier clauses (see section 2.6). Nominalizations of *te* 'say' which are used in a complementizer-like function are restricted to forms based on the past participle *-nƏ* in the objective (*tenine*) or the nominative form (*teni*), both of which also take an obligatory 3rd person possessive marker, nominalizations in other cases being extremely rare (see section 2.5.3).

The availability of participles and (action) nominalizations of SAY in a complementizer-like function is of some typological interest. According to Matić & Pakendorf (2013), the dominant form of non-canonical SAY in Eurasia is a same-subject converb, which is also the case in PC. Although participles of SAY are also widely attested, Matić & Pakendorf only mention their use in metalinguistics constructions but not in complementation, whereas action nominalizations of SAY appear to be entirely lacking in their database.[13,14]

2.5.1. Clauses headed by tenine

Clauses headed by *tenine* (the objective case of the past participial action nominalization of the verb *te* 'say'), or *tenine*-clauses, typically appear as complements of the verb *ëlt* 'hear' as the preferred form of a SAY-complement, as opposed to *teze*-clauses, cf. (1a) and (2c).[15] Apart from 'hear', *tenine*-clauses are also found with several other verbs listed in (10) and illustrated in (11), which do not normally take *teze*-clauses (at least in the respective meaning), cf. (9a). All of the

[13] At least one instance of an action nominalization of SAY in a complementizer-like function is reported for Tamil (see Steever 2002:95, ex.(3b)).

[14] All participle-based forms of SAY discussed in this section, including action nominalizations, are possible in the metalinguistic function, as shown by examples from Standard Chuvash in (ia)–(ib). Such uses are not discussed in this paper.

(i) Standard Chuvash
a. *"Unta,"* ***te-n-i*** — *front-ra* ***te-n-in-e*** *pel-dër-et.*
there say-PST.PTC-POSS3.NOM front-LOC say-PST.PTC-POSS3-OBJ know-CAUS-NPST[3SG]
'"There" means "on the front".' (http://ru.corpus.chv.su/kusaru/456471.html)
b. *Unən* *"XX let RKKA"* ***te-gen*** *medal pur.*
3SG.GEN "XX let RKKA" say-PTC.PRS medal COP
'He has a medal for the XX's anniversary of the Red Army' (http://ru.corpus.chv.su/kusaru/500983.html)

[15] This is also the most common context for (the cognate of) *tenine* in the corpus of Standard Chuvash.

verbs in (10) in construction with a *tenine*-clause seem to express the semantic component ‘the (subject) experiencer E receives verbal information P from some source X’.

(10) Verbs compatible with *tenine*-clauses

asta ‘remember’*, anlan* ‘understand’, *ëlt* ‘hear’ (1a), *ënen* ‘believe’, *pël* ‘know’ (11a), *ʂan* ‘believe’ (11b), *vula* ‘read’ (11c).

(11) a. *ep* *eki-ren* [*on* *kozʐagʲ-ə* *tar-za* ***te-n-in-e***]
1SG.NOM sister-ABL 3SG.POSS cat-POSS3 run-SIM.CVB say-PST.PTC-POSS3-OBJ
pël-d-ëm.
know-PST-1SG
‘I learned (=heard) from [my] sister that her cat has ran away.’

b. *aməʂ* [*ulʲ-ə* *pilëk* {*il-ze* ***te-n-in-e*** /
mother.POSS3 son-POSS3 five get-SIM.CVB say-PST.PTC-POSS3-OBJ
il-n-in-e}] ***ʂan-tɕ-ə***.
get-PST.PTC-POSS3-OBJ believe-NPST-3SG
‘Mother believed (the claim) that her son has got an A (“five”).’

c. *director* [*përn* *ʂkol* *perremeʂ* *vɨrən* {*jɨʂən-za*
headmaster 1PL.GEN school first place get-SIM.CVB
te-n-in-e / *jɨʂən-nə* *ɕindʑe*}] *xaʐat-ra* ***vula-nə***.
say-PST.PTC-POSS3-OBJ get-PST.PTC about newspaper-LOC read-PST.PTC
‘The headmaster [of our school] read in a newspaper that our school has got the first place.’

Tenine-clauses are optional in the sense that they always alternate with nominalized clauses in the objective case (cf. (1a) and (3b), (11a) and (9a) and (11b)–(11c)). According to my informants, the use of *tenine*-clauses emphasizes that the information was received via hearsay. Speakers often suggest a translation for such examples along the lines of ‘heard/read/believed *the words* that’. Note that *tenine*-clauses can combine with otherwise factive verbs like *pël* ‘know’ (cf. (11a)), whose meaning they seem to change to a non-factive one (cf. also (12c)). Thus, *tenine*-clauses may be viewed as an (optional) marker of reported (‘hearsay’) evidentiality (see Aikhenvald 2004) restricted to clausal complements of verbs of hearing and other similar verbs. This characterization seems to be confirmed by examples with *tenine*-clauses from Standard

Chuvash, shown in (12a)–(12d). Such examples often have a "distancing" effect and imply the current speaker's disbelief or uncertainty regarding the embedded proposition.[16]

(12) Standard Chuvash

a. *Epë paroxod ҫinʣen politsi-zem ʂɨra-gan ҫin cik-në*
1SG.NOM steamboat off policeman-PL seek-PRS.PTC person jump-PST.PTC
te-n-in-e *ilt-r-ëm.*
say-PST.PTC-POSS3-OBJ hear-PST-1SG
'I heard that allegedly a man sought after by the police has jumped off the ship.' (http://ru.corpus.chv.su/kusaru/159624.html)

b. *Vesëm — uxmax-sem, esë təzaləx-ʂən tərəʂ-ni-be*
all.PL fool-PL 2SG.NOM cleanliness-CSL care-PST.PTC-POSS3-INS
ʂapla tu-nə ***te-n-in-e*** *ënen-ë-ҫ.*
so do-PST.PTC say-PST.PTC-POSS3-OBJ believe-FUT-3PL
'All are fools, they will believe that you are doing this out of concern for the cleanliness.' (http://ru.corpus.chv.su/kusaru/211229.html)

c. *ҫav tɕir-e pula temperatura xəbar-atʲ* ***te-n-in-e***
this illness-OBJ because.of fever increase-NPST-3SG say-PST.PTC-POSS3-OBJ
ҫeҫ astav-at-ap.
PTL remember-NPST-1SG
'I remember (= it is in my recollection) that this illness is supposedly accompanied by a fever.' (http://ru.corpus.chv.su/kusaru/267036.html)

Given the examples above, the status of *tenine* as a complementizer is somewhat unclear. On the one hand, at least some of the examples, especially (10b)–(10c), (11a), (11c) seem to be in principle amenable to a (semantically) compositional analysis of *tenine* along the lines of 'S believes/remembers/heard/read etc. that *they say*/*X says* that P'. On this analysis, discussed in more detail in section 5, *tenine* would be (synchronically) an action nominalization of *te* 'say' with a pro-dropped subject (an impersonal meaning is expected as this is how the verb *te* 'say' without an overt subject is usually interpreted, cf. (6b)). Note, however, that while this analysis is a theoretical possibility it is not necessitated by the data. On the other hand, the meaning of examples like (1a) and (10a), which are most typical for *tenine*-clauses, is more naturally rendered *without* any explicit verb 'say'. Moreover, corpus examples from Standard Chuvash usually if not always

[16] For example, the Russian translations of (12a) and (12c) contain the reportative complementizer/particle (*čto*) *budto* 'as if' (see Hansen et al. 2016), whereas (12c) also contains an impersonal reflexive form of the verb 'remember' (*pomnitsja*), implying that the speaker/subject's recollection is not clear.

have no verb 'say' in the translation (this is, in fact, one of the criteria for non-canonicity of SAY used by Matić & Pakendorf (2013:373). Overall, the data seem to suggest that *tenine* is a special reportative complementizer restricted to verbs of hearing and other verbs with a similar meaning.

2.5.2 Clauses headed by teni

Clauses headed by *teni* (the nominative case of the past participial action nominalization of the verb *te* 'say'), or *teni*-clauses, occur as sentential subjects instead of *teze*-clauses, which are disallowed in this function, as shown in (13a). Like *tenine*-clauses, *teni*-clauses seem to be restricted to non-factive predicates, cf. (13b). They are also optional and can always be replaced with nominalized clauses in the nominative, cf. (13a). As in the case of *tenine*-clauses, they seem to emphasize that the proposition expressed by the embedded clause has a hearsay source (often implying that the speaker takes it to be false or doubtful), suggesting that they can also be viewed as an expression of reported evidentiality. The above characterization is confirmed by corpus examples from Standard Chuvash, as in (14a)–(14b).[17]

(13) a. [*man eki katɕtɕa* {*tox-n-i* / *tox-sa*
1SG.POSS sister groom go.out-PST.PTC-POSS3.NOM go.out- SIM.CVB
te-n-i / ***tox-sa** *te-ze*] *tërës mar*.
say-PST.PTC-POSS3.NOM go.out- SIM.CVB say-SIM.CVB true NEG.COP
'That my sister has got married (as they say) is not true.'

b. *san kozak* {*tar-n-i* / ??*tar-za*
2SG.POSS cat run.away-PST.PTC-POSS3.NOM run.away-SIM.CVB
te-n-i} *pët ozal*.
say-PST.PTC-POSS3.NOM very bad
'That your cat has run away is very bad.'

(14) Standard Chuvash
a. *Komandir-zem ən-a jurat-atɕə* ***te-n-i***
commanders-PL 3SG-OBJ like- NPST.3PL say-PST.PTC-POSS3.NOM
ilt-en-et.
hear-REFL-NPST[3SG]
'It is rumored that commanders like him.'
(http://ru.corpus.chv.su/kusaru/127332.html)

[17] Note that in (14b) the current speaker refers to a particular speech act rather than some unspecified rumor.

b. *Epë* *katʲə-na* *pël-mest-ep* ***te-n-i*** *ɕënë*
1SG.NOM Kate-OBJ know-NEG.NPST-1SG say-PST.PTC-POSS3.NOM new
xɨbar-tɕə=xa.
news-COP.PST=PTL
'As for the fact that, as he says, I don't know Kate, that was something new.'
(http://ru.corpus.chv.su/kusaru/143353.html)

As in the case of *tenine*, a compositional semantic analysis of *teni* as an action nominalization of *te* 'say' with an interpretation along the lines of 'that *they say*/*X says* that P' is a theoretical option, but it is usually superfluous and sometimes does not correctly capture the meaning of these examples (cf. #'that *they say* P is not true').[18] Thus, the most appropriate analysis of *teni* is that it is a special reportative complementizer restricted to sentential subjects.

2.5.3. Nominalizations of te *'say' in other cases*

Nominalizations of *te* 'say' in other cases are marginal in the complementizer-like function. One such potential example is the instrumental form *tenibe*, which was accepted with the verb *kilĕş* 'agree', as in (15a), and (marginally) with the verb *moxtan* 'boast', as in (15b), where the form *teze* was preferred.[19] As is the case with *tenine* and *teni*, *tenibe*-clauses can be replaced with nominalized clauses marked with instrumental case.

(15) a. *vasʲə* [*maşə* *lajk* {*jorla-n-i-be* / *jorl-at*
Vasya Masha good sing-PST.PTC-POSS3-INST sing-NPST[3SG]
te-n-i-be}] *kilĕş-rʲ-ë.*
say-PST.PTC-POSS3-INST agree-PST-3SG
'Vasya agreed (with the claim) that Masha sings well.'

[18] An interesting issue not addressed here is that examples like '(the fact) that X says that P is not true' in familiar European languages (e.g., Russian) seem to marginally allow a "non-compositional" interpretation 'P is not true', suggesting either that 'say (that)' can have a non-compositional interpretation despite being categorially a verb or that the construction itself is undergoing grammaticalization. See section 5 for further discussion.

[19] *Tenibe* seems to be the only form found in the corpus of Standard Chuvash in a complementizer-like function, and it occurs almost exclusively with the verb *kilĕş* 'agree', as in (i).

(i) Standard Chuvash
Man-ən purnaş *pët-et* ***te-n-i-be*** *Ivan Ivanitɕ* *kallex* *kilĕş-me-rʲ-ë.*
1SG-GEN life finish-NPST[3SG] say-PST.PTC-POSS3-INST Ivan Ivanych again agree-NEG-PST-3SG
'Ivan Ivanych again disagreed that my life has finished.' (http://ru.corpus.chv.su/kusaru/130999.html)

b. *petʲə* [*pilëk* {*il-n-i-be* / *il-d-ëm* *te-ze* /
Petya five get-PST.PTC-POSS3-INST get-PST-1SG say-SIM.CVB
ʔ*il-d-ëm* ***te-n-i-be***}] *moxtan-at*.
get-PST-1SG say-PST.PTC-POSS3-INST boast-NPST[3SG]
'Petja$_1$ boasts (by saying) that he$_1$ has got an A ("five").'

Nominalizations of *te* 'say' in cases other than the instrumental are either not possible in complement clauses or require a translation with a lexical verb 'say', as shown in (16). They also optionally allow an overt subject. This suggests that they are fully compositional (canonical).[20]

(16) *vasʲə* [{(*poskil*) *kozaq* *tar-za* ***te-n-i-ӡën*** / *kozaq*
Vasya neighbor cat run.away-SIM.CVB say-PST.PTC-POSS3-CSL cat
tar-nə-ӡen}] *xojxr-at*.
run.away-PST.PTC- CSL be.sad-NPST[3SG]
'Vasya is sad because they/the neighbor said that [Vasya's] cat has run away.'

2.6. Participles of te *'say'*

Participles of *te* 'say' proper, i.e. forms heading noun-modifying clauses, can also function as complementizers in PC. These are the non-inflected forms of the past participle *-nƏ* (*tenë*), as in (17a), and the present participle *-AgAn* (*tegen)*, as in (17b), which are used more or less interchangeably. Clauses headed by *tenë*/*tegen* are used with nouns that have propositional content such as *xɨbar* 'news, rumor', *ʂuxaʂ* 'thought' and others, which are traditionally classified as complement-taking nouns in familiar European languages. *Tenë*/*tegen*-clauses are used instead of *teze*-clauses, which are disallowed with nouns, cf. (17a)–(17b).[21,22] Some examples from Standard Chuvash are given in (18a)–(18b).

[20] The ablative form *tenëren* was only found in the lexicalized preposition-like function ('speaking of') in the Standard Chuvash corpus. The genitive form has not been attested.

[21] Occasionally, one finds examples of *teze*-clauses with noun predicates in the corpus, as in (i). One possibility is that in these examples the N-V combination is optionally reanalyzed as a complex predicate.

(i) *Golos-a* *ən-a* *vëlër-t-ëmër* *te-ze* ***xibar*** *ɕider-etɕë.*
Golos-OBJ 3SG-OBJ kill-PST-1PL say- SIM.CVB news bring-NPST.3PL
'They told Golos that they killed her (lit. 'They bring the news to Golos that we have killed her').' (http://ru.corpus.chv.su/kusaru/240483.html)

[22] A similar restriction has been described for Kalmyk in Knyazev 2016.

(17) a. [*jonaʐar jal-da poʐar* {*pol-nə* / *pol-za* ***te-në*** / *pol-za*
neighbor village fire be-PST.PTC be-SIM.CVB say-PST.PTC be-SIM.CVB
te-gen / **pol-za te-ze*}] ***xĭbar-a*** *ëlt-r-ëm*.
say-PRS.PRS be-SIM.CVB say-SIM.CVB news-OBJ hear-PST-1SG
'I heard the news that there has been a fire in the neighboring village.'

b. [*es katɕtɕa kaj-za* {***te-gen*** / **te-ze*}] ***xĭbar*** *pur*.
2SG.NOM groom go-SIM.CVB say-PST.PTC say-SIM.CVB news COP
'There is news that you are getting married.'

(18) Standard Chuvash

a. *tɕasax estakada ɕun-atʲ* ***te-në*** ***xĭpar***
immediately overhead road burn-NPST[3SG] say-PST.PTC news
sarəl-nə.
spread-PST.PTC
'Immediately the rumor was spread that the overhead railroad is on fire.' (http://ru.corpus.chv.su/kusaru/156504.html)

b. *Marjə Ivanovnə tux-sa kajaj-m-ë* ***te-në*** ***ʂuxaʂ*** *man-a*
Marja Ivanovna go.out go-NEG-FUT.3SG say-PST.PTC thought 1SG-OBJ
sexërlen-der-ze ja-tɕ-ë.
fear- CAUS-SIM.CVB put-PST-3SG
'The thought that Marja Ivanovna may not manage to leave frightened me.' (http://ru.corpus.chv.su/kusaru/128419.html)

Tenë/*tegen*-clauses alternate with clauses headed by the non-inflected participles of the embedded verb as, e.g., *polnə* in (17a). Interestingly, such clauses cannot be viewed as ordinary relative clauses as they do not contain gaps (i.e., the head noun 'news' is not relativized in the usual sense) and thus should be analyzed as generalized noun modifier clause constructions (GNMCC) (see Matsumoto et al. 2017).[23] As for the analysis of *tenë*/*tegen*-clauses, the status of *tenë*/*tegen* as a complementizer is not very clear given the availability of GNMCC in PC. The compositional semantics of *tenë*/*tegen*-clauses in (17a)–(17b) under a GNMCC analysis would be along the lines of 'X heard the news/there is news such that *they say*/*Y says* that P', which seems an acceptable paraphrase of those sentences. Yet, given that the respective sentences do not

[23] For more details on such constructions in PC see Logvinova 2019b. Another example is given in (i).
(i) [*petjə maʂina il-në*] ***novoɕ*** *jal-da tɕastɕas salan-tɕ-ə*.
Petja car get-PST.PTC news village-LOC immediately spread-PST-3SG
'The rumor that Peter has bought a car has immediately spread through the village.' (Logvinova 2019b)

normally contain an explicit verb 'say' in the translation, it seems reasonable to analyze *tenë*/*tegen* as instances of non-canonical SAY, i.e., as a special form of the SAY-complementizer reserved for noun-modifying clauses (and probably expressing a reportative/'hearsay' meaning on a par with action nominalizations *tenine* and *teni*, discussed above).

This completes the survey of SAY-complementizers in PC. To summarize, I have shown that apart from the same-subject converb *teze*, used as a default complementizer with verbs of speech and thought, there are (participle-based) action nominalizations of SAY *tenine* and *teni* as well as the participles *tenë* and *tegen*, which are also used in a complementizer-like function. All of these forms have a rather restricted distribution (*tenine* is used with verbs of hearing, *teni* with sentential subjects and *tenë*/*tegen* with complement-taking nouns) and also bear additional semantic content (expressing reportative/'hearsay' evidentiality), which suggests a lower degree of grammaticalization, but they still qualify as non-canonical/conventionalized SAY as they are generally interpreted non-compositionally.

In the next section, I will focus on the nominalization *tenine* and will discuss its differences from the form *teze* concerning the interpretation of indexicals. As we will see in section 5, this discussion will also bear on the proper analysis of *tenine*.

3. Indexical shift in Poshkart Chuvash

3.1. Some general discussion of indexical shift

SAY-complements are often ambiguous between direct and indirect speech since SAY-complementizers are also commonly used as quote markers (Matić & Pakendorf 2013). This is different from European languages, where direct speech is expressed by a specialized construction while indirect speech is marked by a complementizer (see, e.g., Comrie 1985:107ff, Coulmas 1986, a.o.). In view of this fact, in languages with SAY-complements direct and indirect speech are typically distinguished on the basis of indexical reference (see, e.g., Güldemann 2008). Specifically, in direct discourse indexicals are calculated from the perspective of the original speaker (i.e. the speaker whose speech/thought act is reported), whereas in indirect discourse they are calculated from the perspective of the current speaker, who is doing the reporting (see, e.g., Li 1986). This difference between direct and indirect speech is traditionally tied to the idea that direct speech "reproduces the original speaker's words or at least words that are presented as if they were original speech" (Evans 2013:68). By contrast, indirect speech presents the original speech as filtered through the perspective of the current speaker.[24]

[24] It is generally agreed nowadays that *exact* or *verbatim* representation of the original speech in direct speech is unrealistic (see Clark & Gerrig 1990, Vandelanotte 2009). Nevertheless, direct speech is still widely recognized as a separate type of speech, distinguished by its ability to *resemble* the original utterance in relevant respects (Güldemann

For example, in a direct report, as in (19b), the reference of the 1st person pronoun *man* refers to the original speaker, Vasya's mother, reflecting the original speaker perspective (cf. the original speech act in (19a)). As mentioned in the Introduction, indexicals with such an interpretation (i.e., relative to the perspective other than that of the current speaker) will be referred to as *shifted*. By contrast, in an indirect report in (19c), the original speaker is referred to by the 3rd person pronoun *on*, from the perspective of the current speaker (note that PC allows embedded imperatives in indirect speech, see Kaufmann & Poschmann 2013). An additional feature of direct speech in (19b) is the use of vocative, which are impossible in indirect reports (see, e.g. Banfield 1973). Note that both direct and indirect speech in (19b)–(19c) are introduced by the same construction, involving the complement of the lexical verb *te-* 'say' or a *teze*-clause.[25]

(19) a. Context: Vasya's mother says to Vasya:

vasʲə, man pat-nʲ-a kil.

Vasya, 1SG.POSS side-POSS3-OBJ come[IMP.2SG]

'Vasya, come to me.'

b. Context: Masha reports (19a) to Sonya:

*aməʂ "vasʲə, **man** pat-nʲa kil" {te-rʲ-ë / te-ze kala-rʲ-ə}.*

mother.POSS3 Vasya, 1SG.POSS side-POSS3.OBJ come[IMP.2SG] say-PST-3SG say-SIM.CVB say-PST-3SG

'[Vasya's] mother$_1$ said, '"Vasya, come to me$_1$."'

c. Context: = (19b)

*aməʂ vaɛa [**on** pat-nʲ-a kil] {te-rʲ-ë / te-ze kala-rʲ-ə}.*

mother.POSS3 Vasya.OBJ 3SG.POSS side-POSS3-OBJ come[IMP.2SGG] say-PST-3SG say-SIM.CVB say-PST-3SG

'[Vasya's] mother$_1$ told Vasya to come to her$_1$.'

It turns out that indexicals with a shifted interpretation do not always unambiguously identify direct speech. First, shifted indexicals may co-occur with features that are characteristic of indirect speech such as substantial paraphrasing of the original utterance, *de re* construal of material inside reported speech and extraction of such material (e.g., in wh-questions and relativization), see, e.g.,

2008:312; Deal 2020:11; Munro et al. 2012). Thus, for example, most formal semantics/generative approaches assume that direct speech requires at least some degree of faithfulness to the original words and thus disallows substantial paraphrasing of the original speech (see Anand 2006, Schlenker 2011, Munro et al. 2012).

[25] In the corpus of Standard Chuvash, examples with *teze* introducing direct speech are also marked with special punctuation, as in European languages.

Munro et al. 2012, Shklovsky & Sudo 2014, Deal 2020.[26] Indexical shift in the presence of wh-extraction is illustrated in (20c). Consider first (20b), which a speech report of the original utterance in (20a). Note that (20b) contains shifted 1st person agreement, which may indicate that it is a direct report, although not necessarily. Now consider (20c), which is a wh-question with an (in situ) wh-word corresponding to the instrumental phrase in the embedded clause in (20b). Crucially, (20c) still contains shifted agreement. Yet, it is very unclear how (20c) could be a direct report of the original utterance of (20a) as the latter is a declarative sentence and does not contain any wh-words. A more appropriate interpretation is that (20c) is an indirect report, and that 1st person agreement may shift in indirect reports. By parity or reasoning, (20b) should also be analyzed as ambiguous between a direct report and an indirect report with shifted agreement.[27]

(20) a. Context: Boris says to Lionila:

(*ep*) *sonʲə-ba* *ëɕl-e-p.*

1SG.NOM Sonya-INST work-NPST-1SG

'I (will) work with Sonya.'

b. Context: Lionila reports (20a) to Masha.

boris [(***ep***) *sonʲə-ba* *ëɕl-e-**p***] *te-ze* *kala-rʲ-ə.*

Boris 1SG.NOM Sonya-INST work-NPST-1SG say-SIM.CVB say-PST-3SG

'Boris$_1$ said that he$_1$ will work with Sonya.' (lit.: 'Boris said I will work with Sonya.')

c. Context: Roza asks Masha:

boris [(****ep***) ***kam-ba*** *ëɕl-e-**p***] *te-ze* *kala-rʲ-ə?*

Boris 1SG.NOM who-INST work-NPST-1SG say-SIM.CVB say-PST-3SG

'Who did Boris$_1$ say he$_1$ will to work with?' (lit.: 'Who did Boris say I will work with?')

An alternative interpretation of these facts is that direct reports in PC simply allow extraction, which is normally disallowed in European languages (cf. Munro et al. 2012). This would imply that (20a) is quoted only partially, with the instrumental phrase unquoted (see Maier 2016, 2017 for further discussion of unquotation).[28] This analysis, however, is problematic because in PC, an *overt* 1st person subject with a shifted interpretation is disallowed in the presence of wh-extraction, as shown in (20c). Yet, there is no a priori reason why unquotation should not also apply in this case.[29] By contrast, on the interpretation adopted in this paper (and in most

[26] The opposite situation arises in so-called free indirect discourse, combining non-shifted indexicals with syntactic characteristics of direct speech (see, e.g., Banfield 1973, Coulmas 1986, Schlenker 2011).

[27] More precisely, only the sentence with a non-overt embedded subject must be ambiguous, whereas the sentence with an overt subject must be unambiguously a direct report (see the discussion below).

[28] For some general discussion (and criticism) of Maier's unquotation/mixed quotation analysis see Deal 2020.

[29] One may still argue, though, that partial quotation in PC can only apply to the embedded verb.

generative approaches) this does not pose a problem as it may simply be assumed that in PC overt pronouns do not shift, indexical shift being restricted to agreement/non-overt pronouns.

Second, indexicals within the same clause sometimes take different perspectives. To illustrate this with PC examples, consider (21b) and (22). In (21b), shifted 1st person agreement co-occurs with a 1st person pronoun *manba* with the current speaker perspective. Similarly, in (22) shifted agreement co-occurs with the 2nd person pronoun *sanba* referring to the current addressee. Examples with such "mixing" of perspectives have long been noted in the typological literature and have been analyzed as involving *partial* or *incomplete shift* (Rice 1986, Aikhenvald 2008, Evans 2013).[30] Such examples have also recently become the focus of generative approaches to indexical shift as apparent violations of the so-called *Shift Together* assumption (on which see below).

(21) a. Context: Boris says to Sonya:

(*ep*) *san-ba* *ëɛl-e-p*

1SG.NOM 2SG-INST work-NPST-1SG

'I will work with you.'

b. Context: Sonya reports (21a) to Masha.

boris [***man-ba*** *ëɛl-e-**p*** *te-ze*] *kala-ɾʲ-ə.*

Boris 1SG-INST work-NPST-1SG say-SIM.CVB say-PST-3SG

'Boris$_1$ said that he$_1$ will work with me$_{\text{current speaker}}$.' (lit.: 'Boris said I will work with me.')

c. Context: =(21b)

boris *man-a* [*ep* {***man-ba*** / *san-ba*} *ëɛl-e-**p***

Boris 1SG-OBJ 1SG.NOM 1SG-INST 2SG-INST work-NPST-1SG

te-ze] *kala-ɾʲ-ə.*

say-SIM.CVB say-PST-3SG

'Boris$_1$ said that he$_1$ will work with me$_{\text{current speaker}}$.' (= 'Boris told me, "I will work with you"')

[30] Similar to cases of partial shift are person alignment systems with logophoric marking, particularly in African languages, as discussed in Nikitina 2012. In such systems, logophoricity (standardly taken to signal indirect discourse) is often combined with shifted interpretation of 1st/2nd indexicals. Another possibility is presented by systems with so-called "first person logophoricity" (Curnow 2002) where the 1st person agreement may appear shifted while other indexicals take the perspective of the current speaker, which looks very much like PC examples (21b) and (22). Note that partial shift is not necessarily an "exotic phenomenon". For example, embedded tense in languages without sequence-of-tense rules like Russian (which otherwise lack shifted indexicals) may be an instance of partial shift (see Comrie 1985, Schlenker 2003, 2011).

(22) Context: Boris said to Masha, 'I will work with Sonya'. Masha report this to Sonya.

(*son^{j}ə,*) *boris* *man-a* [***san-ba*** *ëɕl-e-**p*** *te-ze*] *kala-r^{j}-ə.*

Sonya Boris 1SG-OBJ 2SG-INST work-NPST-1SG say-SIM.CVB say-PST-3SG

'(Sonya,) Boris$_1$ told me that he$_1$ will work with you$_{\text{current addressee}}$.' (lit.: 'Boris told me I will work with you.')

The most natural interpretation of the data in (21b) and (22) is that indexicals may shift even in the presence of other non-shifted indexicals within the same clause, that is, in indirect speech, assuming that the latter categorically disallows non-shifted indexicals. This is, in fact, how such examples are analyzed in typological studies such as Güldemann 2008 and Matić & Pakendorf 2013 (where they are classifies as indirect speech). Again, an unquotation analysis of the kind alluded to above (with the instrumental phrase unquoted) is precluded by the fact that in the presence of an overt subject, 1st person no longer allows shifted interpretation if the instrumental phrase retains the current speaker perspective. (It is possible for a 1st person pronoun to shift only if the instrumental phrase also shifts (cf. the use of the shifted 2nd person pronoun *sanba* for the original addressee/current speaker), suggesting that this is a direct report). Yet, there is no apparent reason why unquotation should not apply in this case. A more appropriate interpretation, again, is that 1st person may shift in the presence of non-shifted indexicals in PC, although this is not possible for overt 1st pronouns, but only for 1st person agreement/non-overt pronouns.

One response to examples with shifted indexicals co-occurring with features of indirect speech, which has become particularly influential in functional typological literature, is to view the category of direct/indirect speech as a continuum with one pole representing canonical direct speech and the other canonical indirect speech, with various points in between, including so-called semi-direct or biperspectival speech, where the current and original speaker perspectives combine (see Evans 2013, Aikhenvald 2008, Güldemann & von Roncador 2002).

Another response, adopted in generative approaches, is to view indexical shift (in a narrow sense) as a phenomenon distinct from direct speech/quotation (see, e.g., Schlenker 2003; Anand & Nevins 2004; Munro et al. 2012; Shklovsky & Sudo 2014; Deal 2020) despite superficial similarity. In these approaches indexical shift is accounted for by abstract but syntactically active monster operators, which are located in the left periphery of embedded clauses and whose function is to manipulate coordinates of the context relative to which indexicals in the embedded clause are evaluated.[31] Specifically, the coordinates associated with the current speech act are replaced with the coordinates associated with the original speech/thought act, although technical implementation widely differs across different approaches (see Deal 2020 for an overview).

[31] Schlenker (2003, 2011) takes a speech/attitude verb itself to be a monster.

One conceptual advantage of monster-based approaches over continuum approaches, also acknowledged in functionally oriented work (cf. Spronck & Nikitina 2019, see also Nikitina 2012), is that they take indexical shift to be a *grammatical* (or conventionalized) phenomenon, making it easier to account for the observed systematic variation across languages, which is subject to robust implicational hierarchies, as shown by Deal (2020).[32] By contrast, the former approaches tend to view the problematic examples above as deviations from core grammar, e.g., as special stylistic/pragmatic devices (although it is acknowledged that these patterns may sometimes become grammaticalized, cf. Evans 2013, Aikhenvald 2008).

Interestingly, despite some success of monster-based approaches in accounting for examples of indexical shift with wh-extraction, as in (21b), they have had considerably more difficulty with examples of partial shift, as in (22) and especially (21b), where the *same* person value (i.e., 1st person) has different perspectives within the same clause. This is because these approaches have generally assumed the so-called *Shift Together* constraint (Anand & Nevins 2004), requiring all indexicals within the scope of a monster to be evaluated relative to the same context (of the original speech act/attitude). How to account for these so-called *Shift Together* exceptions is still a widely debated question in the literature.[33]

Although my goal in this paper is largely orthogonal to the question of deciding between existing approaches to indexical shift, I am generally sympathetic with the treatment of indexical shift as a grammatical phenomenon in generative approaches and specifically with efforts within generative typology to understand the limits of variability of indexical shift across languages. My specific goal is to extend this typology with a more focused discussion of the question of the controller choice (with verbs of hearing and less common constructions), rarely addressed in this literature, and also of the role of the complementizer and its form on the possibility of shift (see some preliminary discussion in Messick 2017). In order to more easily connect the findings in this paper to the existing (generative) typological work on indexical shift, I will follow the standard practice of controlling for quotation (cf. Shklovsky & Sudo 2014, Deal 2020), for which I will

[32] One important difference between Spronck & Nikitina's (2019) approach and generative approaches is that Spronck & Nikitina are skeptical about the usefulness of the direct/indirect distinction in cross-linguistic studies (which is generally assumed in generative literature), instead of which they suggest a "neutral" category of reported speech constructions identified by their semantic/pragmatic function and also by some prototypical syntactic properties including some conventional system of indexical shift. As they note, this is, in principle, compatible with monster-based accounts of indexical shift, even though Spronck & Nikitina do not endorse their specific formalisms.

[33] Various strategies have been proposed to deal with *Shift Together* exceptions: (a) 'partial' monster operators overwriting only some context coordinates, e.g. the Speaker but not the Hearer, etc. (see Deal 2020, Anand & Nevins 2004, Munro et al. 2012); (b) treating one of the 1st person markers in "mixed" configurations like (21b) not as true indexical but as a logophor with 1st person features (indexiphor) immune from context overwriting (see Anand 2006, Deal 2018, 2020); (c) dropping *Shift Together* altogether by allowing indexicals to depend freely on either the current context or the original context (cf. Schlenker 2003, 2011). See Deal 2010, Sundaresan 2018 for further discussion.

mostly use examples with partial shift like (21b) and (22), assuming that they provide a reliable diagnostic of the absence of quotation (see the discussion of unquotation above).[34]

Below I will go over some parameters of indexical shift in PC that are usually discussed in generative typological work such as Deal 2020.

3.2. Parameters of indexical shift in Poshkart Chuvash

3.2.1. Which indexicals shift

We already saw in (20c) and (21b)–(21c) that whereas 1st person agreement can shift, 1st person subject pronouns cannot. In fact, overt pronouns in PC generally do not allow shift (outside quotation). This is further illustrated in (23a) where the 1st person pronoun in the instrumental case *manba* cannot refer to the original speaker; instead one must use the 3rd person pronoun *onba*, which takes the current speaker perspective.[35] Similarly, in (23b), the 1st person locative pronoun *konda* 'here' cannot refer to Moscow, where the original speaker is located at the time of the original utterance; instead, one must use *onda* 'there', where the current speaker is located.[36]

(23) a. Context: Boris said to Masha, 'Sonya will work with me.' I am now asking Masha:

boris	[*kam*	{***man-ba*** /	*on-ba*}	*ɵɕl-et*	*te-ze*]
Boris	who.NOM	1SG-INST	3SG-INST	work-NPST[3SG]	say-SIM.CVB

kala-rʲ-ə?
say-PST-3SG
'Who did Boris$_1$ say will work with him$_1$?'

[34] Diagnostics for establishing the absence of quotation commonly used in generative works (e.g., wh-extraction) may be problematic in view of the fact they tend to presuppose some universal set of criteria for direct speech. Even though such diagnostics (e.g., unacceptability of wh-extraction) may be valid for familiar European languages, they cannot be assumed a priori for other languages, especially those for which a distinction between direct and indirect speech is questionable (see Munro et al. 2012 for some discussion). Note that this criticism does not imply that these diagnostics will not work for particular languages (cf. the discussion of PC above). This conceptual problem is avoided in approaches like that of Spronck & Nikitina (2019), who reject any universal syntactic criteria of direct speech.

[35] The example is possible on a reading where *manba* refers to the current speaker.

[36] Note that in the absence of wh-extraction, the original speaker perspective of *konda* becomes possible, as shown in (i), cf. also (21c). Note further the proform *onda* 'there' with the current speaker perspective is also possible.

(i) Context: One month ago, I was in Moscow and met Boris there. He said to me then, 'I am living here, in Moscow'. Now I am back in Poshkart talking to Roza about our meeting.

boris	*man-a*	[{***konda*** / *onda*}	*porn-a-p*	*te-ze*]	*kala-rʲ-ə.*	
Boris	1SG-OBJ	here	there	live-NPST-1SG	say-SIM.CVB	say-PST-3SG

'When I was in Moscow Boris$_1$ told me that he$_1$ is living there (= in Moscow).'

b. Context: While away in Moscow, Boris saw an acquaintance of his and called Sonya back to Poshkart to tell her about it. I am in Poshkart now asking Sonya:

son^{j}ə,	*boris*	*san-a*	[{***konda***	/ *onda*}	*kam-a*	*gor-d-əm*]
Sonya	Boris	2SG-OBJ	here	there	who-OBJ	see-PST-1SG

te-ze *kala-r^{j}-ə*?
say-SIM.CVB say-PST-3SG
'Sonya, who did Boris$_1$ told you he$_1$ met there?'

The absence of indexical shift with overt pronouns has also been observed for Mishar Tatar, another Turkic language, as discussed by Podobryaev (2014), who analyzes shiftability in Mishar Tatar as a specific property of *non-overt* (null) pronouns/agreement, including null possessive pronouns/agreeement (see also Sundaresan 2018).[37,38] Unfortunately, it is hard to establish the same restriction for PC with full generality since PC has mostly lost its 1st/2nd person possessive agreement, including in action nominalizations (cf. the discussion in section 2.1).

A further difference between PC and Mishar Tatar is that in PC 2nd person agreement (in finite clauses) cannot shift, as shown by the fact that it cannot refer to the original addressee in (24); instead, a 3rd person agreement, from the current speaker perspective, is used.[39,40]

(24) Context: Vasya is going to play chess with Boris. Masha thinks that Boris is superior than Vasya and says to Boris, "You are going to beat him." Vasya reports this to Sonya.

maʂə	*boris-a*	[***man-a***	{*ɕinder-e-***n**	/ *ɕinder-et*}]	*te-ze*	
Masha	Boris-OBJ	1SG-OBJ	win-NPST-2SG	win-NPST[3SG]	say-SIM.CVB	

kala-r^{j}-ə.
say-PST-3SG
'Masha told Boris$_2$ that he$_2$ will beat me$_{\text{current speaker}}$ [in chess].'

To conclude, the only shiftable indexical in PC is 1st person subject-verb agreement. This pattern is not cross-linguistically unique. In Sundaresan's (2018) mini-typological database of 26

[37] For some discussion of the correlation between shiftability and overtness see Messick 2017: Ch. 3.
[38] See Deal 2018, 2020 for an alternative analysis of Mishar Tatar data in terms of *indexiphors* (see footnote 33), which may also potentially extend to PC.
[39] Shift of 2nd person agreement is possible if there are no non-shifted indexicals in the same clause, i.e., if the 1st person pronoun *mana* is replaced with a 3rd person pronoun *ona*, as in (i), suggesting that shift occurs inside quotation.

(i) *maʂə* *boris-a* [*on-a* *ɕinder-e-**n*** *te-ze*] *kala-r^{j}-ə.*
Masha Boris-OBJ 3SG-OBJ win-NPST-2SG say-SIM.CVB say-PST-3SG
'Masha told Boris$_2$, 'You$_2$ will beat him$_1$ [in chess].'

[40] As noted by one of the reviewers, 2nd person (agreement/null subject pronouns) may shift in directive complements, which in PC involve embedded imperatives (or jussives), as witnessed by (i), cf. also (19c).

(i) *maʂə* *boris-a* [*man-a* {*ɕinder* / *ɕinder-dër*} *te-ze*] *kala-r^{j}-ə.*
Masha Boris-OBJ 1SG-OBJ win[IMP.2SG] win-JUSS.3SG say-SIM.CVB say-PST-3SG
'Masha told Boris$_1$ to beat me/that he$_1$ should beat me$_{\text{current speaker}}$ [in chess].'

languages, there are at least four languages unrelated to PC that show the same pattern, i.e., Telugu, Tamil (both Dravidian), Nuer (Nilotic) and Dargwa (Norheastern Caucasian). It is also in line with the implicational hierarchy of "shifty" indexicals in Deal 2020, according to which 1st person is more likely to shift than 2nd person (which, in turn, is more likely to shift than locative HERE).

3.2.2. Which verbs and complement types allow shifting

As I just showed, indexical shift in PC is restricted to subject-verb agreement. Thus, we only find shift in SAY-complements or in clauses introduced directly by the verb *te* 'say' as (participle-based) nominalizations have lost 1st/2nd person agreement (see section 2.2) and other kinds of deranked complements (cf. footnote 6) do not show any agreement.[41,42] Example (25b) illustrates shift with the lexical verb *te* 'say'. We already saw shift in a *teze*-clause with the verb *kala* 'say' (see (2a), (20c), (21b) and (22)). Example (25a) shows shift with the propositional attitude verb *ʂotla* 'think'. Shift in a *tenine*-clause (with the verb *ëlt* 'hear') was briefly illustrated in the Introduction (cf. (2b)) and will be discussed in section 4 in some detail.[43]

(25) a. Context: = (22)

(*sonʲə,*)	*boris*	[***san-ba***	*ëɕl-e-**p***]	{*t-et* /	*te-rʲ-ë*}.
Sonya	Boris	2SG-INST	work-NPST-1SG	say-NPST[3SG]	say-PST-3SG

'(Sonya,) Boris$_1$ said/says that he$_1$ will work with you$_{\text{current addressee}}$.'

b. Context: Boris says to me, 'I will beat you in chess.' I report this to Sonya.

boris	[***man-a***	*ɕinder-e-**p***	*te-ze*]	*ʂotl-at.*
Boris	1SG-OBJ	win-NPST-1SG	say-SIM.CVB	think-NPST[3SG]

'Boris$_1$ thinks he$_1$ that he will beat me$_{\text{current speaker}}$ [in chess].'

3.2.3. Optionality of shift

Whereas 1st person agreement in PC (without an overt subject pronoun) can shift it *need not* do so, as shown by the fact that examples like (26a) allow the embedded subject to refer to the current speaker. Nonetheless, speakers somewhat disprefer (26a) in a non-shifted context and instead

[41] The same is true of the future participle, used in (same-subject) purpose clauses headed by *teze* (see footnote 12).
[42] The loss of 1st/2nd person possessive marking (in nominalizations) and the lack of shifting of overt pronouns in PC cannot be the (only) reason why we do not see shift in nominalized clauses, as in languages like Uyghur (Shklovsky & Sudo 2014) and Mishar Tatar (Podobryaev 2014) shift is still impossible in such clauses despite the availability of 1st/2nd person possessives and/or shifted overt pronouns (I thank one of the reviewers for clarifying this point).
[43] Shift in other SAY-complements such as *teni* and *tenë*/*tegen* is also possible, as shown in (i), although it was not investigated in sufficient detail. Observe that in (i) the shifted 1st person agreement is controlled by the ablative source (*Boris*) rather than by the matrix subject, just like in *tenine*-clauses (cf. (2b)). See section 4 for further discussion.

(i) Context: Boris said to me, 'I will work with Sonya.' I report this to Sonya.

ep	*boris-ran*	[***san-ba***	*ëɕl-e-**p***	*te-në* /	*te-gen*]	*xibar-a*	*ëlt-r-ëm*.
1SG.NOM	Boris-ABL	2SG-INST	work-NPST-1SG	say-PST.PTC	say-PRS.PRS	news-OBJ	hear-PST-1SG

'(Sonya,) I heard the news from Boris$_1$ that he$_1$ will work with you$_{\text{current addressee}}$.'

prefer (26b), with an overt subject, which is unambiguously non-shifted (recall that overt pronouns in PC do not allow shift, cf. (21c)).

(26) a. *boris* *man-a* [***san-ba*** *ëɕl-e-**p*** *te-ze*] *kala-ʁʲ-ə.*
Boris 1SG-OBJ 2SG-INST work-NPST-1SG say-SIM.CVB say-PST-3SG
'Boris$_1$ told me that {I$_{\text{current speaker}}$ / he$_1$} will work with you$_{\text{current addressee}}$.'

b. *boris* *man-a* [***ep*** ***san-ba*** *ëɕl-e-**p*** *te-ze*] *kala-ʁʲ-ə.*
Boris 1SG-OBJ 1SG.NOM 2SG-INST work-NPST-1SG say-SIM.CVB say-PST-3SG
'Boris$_1$ told me that {I $_{\text{current speaker}}$ / *he$_1$} will work with you$_{\text{current addressee}}$.'

The pattern in PC, with an ambiguity in examples like (26a), is found in other languages such as Mishar Tatar (Podobryaev 2014), Zazaki (Anand & Nevins 2004) and Amharic (Schlenker 2003), as opposed to languages like Matses (Munro et al. 2012) and Uyghur (Shklovsky & Sudo 2014), where a shifted interpretation would be obligatory (for further discussion see Deal 2020 and Sundaresan 2018).

This completes the overview of the basic parameters of indexical shift in PC.[44] To summarize, indexical shift in PC (i) involves 1st person subject verb agreement; (b) is restricted to finite clauses introduced by SAY-complementizer or directly be the lexical verb *te* 'say'; (c) is optional. Now we may turn to the main puzzle related to the choice of the controller for the shifted 1st person with *teze* and *tenine*.

4. The puzzle: shift of first person under 'hear'

4.1. Introducing the puzzle

As we already saw in the Introduction, shifted agreement is also possible in *tenine*-clauses with the verb *ëlt* 'hear', as shown in (27a), cf. (2b). In this case, shifted 1st person is controlled by the ablative source, as opposed to the matrix subject, as in *teze*-clauses with verbs *kala* 'say' (cf. (22)) and *ʂotla* 'think' (cf. (25b)). Crucially, although *teze*-clauses are in principle possible (albeit somewhat dispreferred) with *ëlt* 'hear', as shown in (27b), repeated from (2c), they are categorically disallowed in the presence of shifted agreement, as in (27a).

[44] Apart from the three parameters discussed in section 3.2, Deal (2020) also identifies another parameter of indexical shift, namely, whether a given indexical has a *de se* interpretation. This parameter was not tested in the present work.

(27) a. Context: Boris said to me, 'I will work with Sonya.' I report this to Sonya.

(*son*^{j}*ə,*) *ep* *boris-ran* [(*vəl*) *san-ba* *ëɕl-e-p*

Sonya 1SG.NOM Boris-ABL 3SG.NOM 2SG-INST work-NPST-1SG

{*te-n-in-e* / **te-ze*] *ëlt-r-ëm.*

say-PST.PTC-POSS3-OBJ say-SIM.CVB hear-PST-1SG

'(Sonya,) I heard from Boris$_1$ that he$_1$ will work with you$_{\text{current addressee}}$.'

b. Context: Masha said to me, 'Boris is going to work with Sonya.' I report this to Sonya.

(*son*^{j}*ə,*) *ep* *maʂə-ran* [*Boris* *san-ba* *ëɕl-et*]

Sonya 1SG.NOM Masha-ABL Boris 2SG-INST work-NPST[3SG]

{*te-n-in-e* / $^{(?)}$*te-ze*} *ëlt-r-ëm.*

say-PST.PTC-POSS3-OBJ say-SIM.CVB hear-PST-1SG

'(Sonya,) I heard from Masha that Boris will work with you$_{\text{current addressee}}$.'

Before proceeding, one feature of examples with shift under *tenine* like (27a) requires comment. Such examples typically contain an (optional) nominative 3rd person pronoun *vəl*, referring to the original speaker/ablative source. Although the status of *vəl* in such examples is not totally clear, I will analyze it as the subject of the embedded verb, thus assuming that a 3rd person pronoun in PC can control 1st person agreement. Such patterns have been reported in the indexical shift literature where they have been referred to as "monstrous agreement" (see Messick 2017, Sundaresan 2018). Similar patterns have been described in some African languages as a special subtype of as so-called "first person logophoricity" (see Curnow 2002, Nikitina 2012).

An alternative analysis of *vəl* in examples like (27a) is that it is the subject of *tenine* itself, where *tenine* is analyzed as synchronically an action nominalization of the verb *te* 'say' (see section 5 for further discussion). This analysis is problematic for two reasons. First, *vəl* is categorically disallowed when the complement clause has its own (overt) subject, as shown in (28a). Second, *teze*-clauses also in principle allow *vəl* (even though it is dispreferred), as shown in (28b); yet, the monstrous agreement analysis seems to be the only option here since (assuming that *teze* could be analyzed as synchronically the converb of *te* 'say') the *-sA* converb disallows overt subjects, as shown in (29).[45] Given these facts, the most reasonable analytical option for *vəl* in examples like (27a) is monstrous agreement.[46]

[45] As expected, *vəl* in *teze*-clauses with overt embedded subjects are also categorically blocked, as shown in (i).

(i) *lionilə* *man-a* [(**vəl*) [*boris* *san-ba* *ëɕl-et*] *te-ze*] *kala-r*^{j}*-ə.*

Lionila 1SG-OBJ 3SG.NOM Boris you-INST work-NPST[3SG] say-SIM.CVB say-PST-3SG

'Lionila told me (saying) that Boris$_1$ said that he$_1$ will work with you$_{\text{current addressee}}$.'

[46] A further question under the monstrous agreement analysis is why speakers avoid *vəl* with *teze*-clauses in (28b), while preferring *vəl* with *tenine*-clauses in (28a). Although the question is left for future work, I hypothesize that it

(28) a. *ep* *lionilə-ran* [(**vəl*) [*Boris* *san-ba* *ëɕl-et*]
1SG.NOM Boris-ABL 3SG.NOM Boris 2SG-INST work-NPST[3SG]
te-n-in-e] *ëlt-r-ëm.*
say-PST.PTC-POSS3-OBJ hear-PST-1SG
'(Sonya,) I heard from Lionila that Boris$_1$ will work with you$_{\text{current addressee}}$.'

b. ʔ*boris* *man*-a [*vəl* *san-ba* *ëɕl-e-p* *te-ze*] *kala-rʲ-ə.*
Boris 1SG-OBJ 3SG.NOM you-INST work-NPST-1SG say-SIM.CVB say-PST-3SG
'(Sonya,) Boris$_1$ told me that he$_1$ will work with you$_{\text{current addressee}}$.'

(29) *vasʲə*$_1$ [{**vəl* / ___$_{1/*2}$} *divan ɕindʑe* *vʲirt-sa*] *televizor* *pog-at.*
Vasya 3SG.NOM sofa on lie-SIM.CVB TV watch-NPST[3SG]
'Vasya is watching TV lying on the sofa.'

Now, as we saw in (27a), shifted agreement with 'hear' (controlled by the ablative source) is disallowed in *teze*-clauses. We may wonder, however, whether shifted agreement in *teze*-clauses can be controlled by the matrix subject (the hearer/recipient of the report). It turns out that this option is generally precluded in PC, for both *teze* and *tenine*, as shown in (30a)–(30b); instead one must use a 3rd person agreement (with the current speaker perspective).[47]

(30) Context: The teacher says to Vasya, 'You sing best of all.' I report this to Roza.
a. *vasʲə* *utɕitelʲ-dan* [*vəl* *tɕi* *lajk* {**jorl-a-**p*** / *jorl-at*}]
Vasya teacher-ABL 3SG.NOM most good sing-NPST-1SG sing-NPST[3SG]
te-n-in-e *ëlt-se.*
say-PST.PTC-POSS3-OBJ hear-SIM.CVB
'Vasya$_1$ heard from the teacher that he$_1$ sings best [of all].'

could be related to a general (pragmatic) preference for overt subjects with non-prominent (e.g., ablative) antecedents (see, e.g., Patel-Grosz & Grosz 2017, Mayol & Clark 2010).

[47] Note also that the unavailability of subject-control of shifted agreement does not depend on the presence of the ablative source, as shown in (25). I thank one of the reviewers for raising this issue.

(i) Context: Unbeknownst to himself, Vasya snores while sleeping. Once he overheard people discussing his snoring.
vasʲə [*xarlat-sa* {**ɕur-a-p* / *ɕur-at*} *te-ze*] *ëlt-se.*
Vasya snore- SIM.CVB sleep-NPST-1SG sleep-NPST[3SG] say-SIM.CVB hear-SIM.CVB
'Vasya$_1$ heard that he$_1$ snores.'

b. (?)*vasʲə utɕitelʲ-dan* [*tɕi lajk* {**jorl-a-p* / *jorl-at*}] *te-ze*
Vasya teacher-ABL most good sing-NPST-1SG sing-NPST[3SG] say-SIM.CVB
ëlt-se.
hear-SIM.CVB
'Vasya$_1$ heard from the teacher that he$_1$ sings best [of all].'

The distribution of shift with *teze* and *tenine* is summarized in Table 1. With verbs of speech and thought the complementizer takes the converbial form *teze* and shifted 1st person is controlled by the matrix subject (rows A–B).[48] By contrast, with *ëlt* 'hear' shifted 1st person is obligatorily controlled by the ablative source and the complementizer takes the nominalized form *tenine* (rows D–E). In the absence of shift, however, *ëlt* 'hear' in principle allows both *teze* and *tenine* (row C).

Table 1. Acceptability of *teze* and *tenine* depending on the verb type and the presence of indexical shift

	Verb class & controller for shifted 1st person	**Acceptability of complementizer**	
		teze	***tenine***
A	SAY/THINK + no shift	OK	*
B	SAY/ THINK + shift to the matrix subject	OK	*
C	HEAR + no shift	(?)OK	OK
D	HEAR + shift to the matrix subject	*	*
E	HEAR + shift to the ablative source	*	OK

It is difficult to assess how cross-linguistically unusual the pattern in Table 1 is as there is little data on indexical shift under verbs of hearing (cf. Özyıldız et al. 2018). Moreover, alternation of SAY-complementizers, to my knowledge, has not been discussed in connection with indexical shift. Nevertheless, it is noteworthy that the pattern in PC is at least different from the patterns reported for Turkish (Özyıldız et al. 2018) and Uyghur (Sudo 2010).[49] In Uyghur, 1st person under 'hear' must shift to the matrix subject (the hearer), whereas shift to the (oblique) source is disallowed, as shown in (31a), which is the opposite of the PC pattern (the subject is represented as *pro*). In Turkish, 1st person under 'hear' can shift either to the ablative source or to the matrix

[48] The unacceptability of *tenine* with indexical shift under 'say' is illustrated in (i).
(i) *(*sonʲə*,) *boris man-a* [(*vəl*) *san-ba ëɕl-e-p te-n-in-e*] *kala-rʲ-ə*.
Sonya Boris 1SG-OBJ 3SG.NOM you- INS work-NPST-1SG say-PST.PTC-POSS3SG-OBJ say-PST-3SG
Intended: '(Sonya,) Boris$_1$ told me that he$_1$ will work with you.'
[49] Özyıldız et al. (2018) also cite Polinsky 2015 on Tsez, where 1st person indexicals can shift to the matrix subject under verbs of hearing, and Sundaresan 2018 on Tamil, where shift to the subject of 'hear' is significantly harder than under speech verb. Unfortunately, the data on shift to the ablative source is not reported in these works.

subject (apart from a non-shifted interpretation, which is also possible), as shown in (31b), which appears to be the union of the patterns observed with *teze* and *tenine* in PC.[50]

(31) a. Uyghur

ahmet *aygül-din* [*pro* *qaysi* *imtihan-din* *öt-tim*] *dep* *angla-di?*
Ahmet Aygül-ABL which test-ABL pass-PST.1SG COMP hear-PST.3
'Which test did Ahmet$_1$ hear from Aygül$_2$ that he$_{1/*2}$ passed?' (adapted from Sudo 2012)

b. Turkish

ayşe *mercan'-dan* [*pro* *kahraman-ım* *diye*] *duy-du.*
Ayşe Mercan-ABL hero-COP.1SG COMP hear-PST.3SG
'Ayşe$_1$ heard from Mercan$_2$ that she$_{1/2}$ /I$_{\text{current speaker}}$ was a hero.' (adapted from Özyıldız et al. 2018)

The pattern in PC appears puzzling not only because subject-control of the shifted 1st person under 'hear' is precluded, but also because, crucially, the availability of ablative-control is dependent on the form of the complementizer (*tenine* vs. *teze*). This is puzzling because the prohibited pattern in row E cannot be accounted for either by some general ban on ablative-control, as, presumably, in Uyghur, nor by a putative incompatibility of *teze* with 'hear'. The observed pattern appears to call for an account that would involve an interaction between the general properties of indexical shift in PC and the general properties of SAY-complementizers. Such an account is presented in the next section.

4.2. The choice of controller for shifted 1st person

The proposed account of the choice of controller for shifted 1st person in PC is based on three language-specific constraints given in (32).

(32) PC-specific constraints

a. *Speaker-restriction on shift*: If a participant with the Speaker role is implied by the meaning of the matrix verb/construction, then shifted 1st person must be controlled by this participant.

b. *Subject-orientation requirement of* teze: The author of the proposition expressed by a *teze*-clause must be expressed by the grammatical subject of the construction.

[50] The complementizer-like element *diye* in (31b) is morphologically a non-finite form of the verb *demek* 'say', which Özyıldız et al. (2018) analyze as synchronically verbal (see section 5 for further discussion).

c. *Speaker-preference on SAY-complements* (violable constraint): If a participant with the Speaker role is implied by the meaning of the matrix verb/construction, then the author of the proposition expressed by a SAY-complement must coincide with this participant.

The constraint in (32a) is related to the assumption in (33) below, which is largely presupposed by all theories of indexical shift (see, e.g., Schlenker 2011). The main point of (33) is that shifted 1st person can be controlled not just by the Speaker (as with verbs of speech) but, more generally, by the "author" participant, to account for the possibility of shift with propositional attitude verbs, as we saw in (25b).

(33) Shifted 1st person in clausal complements is controlled by the participant who is the "author" of the proposition expressed by the complement (the Speaker or the Attitude Holder).

I would like to suggest that in PC, a stronger version of (33) holds, namely, that the controller for shifted 1st person not only can but *must* be the Speaker if such a participant is semantically present (perhaps as an implicit argument). The constraint in (32) has no effect on verbs like 'say' or 'think' since it leads to the same controller choice as (33). Its effect, however, becomes visible with verbs of hearing, which involve two potential controllers for shifted 1st person, namely, the ablative source, which realized the Speaker, and the matrix subject, which, as we saw in (31a)–(31b), can also control shifted 1st person in languages like Turkish and Uyghur. In order to account for how the subject of 'hear' can be the controller, given (33), Özyıldız et al. (2018) assume that communication reception reports (such as 'hear') are ambiguous between: (a) speech reports, where the ablative source (the Speaker) is the author of the proposition; and (b) attitude reports, where the matrix subject is the author by virtue of being construed as the Attitude Holder.[51] In view of this analysis, it must be explained why subject-control of shifted 1st person with verbs of hearing in PC is unavailable. Precisely to account for that, an additional constraint in (32a), forcing the author of the proposition to be the Speaker, is needed.[52] This explains why shifted 1st person under 'hear' in PC must be controlled by the ablative source (realizing the Speaker).

The question now is why control of shifted 1st person by the ablative source is disallowed with *teze* despite the fact that *teze* is in principle possible with 'hear'. To account for this, we need a further constraint in (32b). According to this constraint, *teze*-clauses are associated with an

[51] The actual account in Özyıldız et al. 2018 is couched in terms of the *logophoric center* (see Sells 1987), which is not crucial for the present discussion.

[52] An alternative explanation is that the verb *ëlt* 'hear' in PC differs from the corresponding verbs in Turkish and Uyghur in terms of its lexical semantics. Specifically, one may assume that 'hear' in PC cannot be construed as an attitude report and thus its subject simply cannot qualify as an author participant, in violation of (33). Although a detailed investigation of this alternative is left for future work, the assumption that the subject of *ëlt* 'hear' cannot be construed as the author would wrongly predict that *teze*-clauses are disallowed with *ëlt* 'hear', as they would then violate the constraint in (32b), on which see below.

independent syntactic requirement, namely, they require that the participant who is the author of the embedded proposition be the grammatical subject (the subject-orientation requirement). Note that this constraint concerns *teze*-clauses in general, independently of the presence of shifted agreement. The constraint in (32b) may seem somewhat unusual from the perspective of European languages, where non-control complements (e.g., *that*-clauses) are generally not taken to be "linked" to some participant in the matrix clause. Yet, there is evidence for this constraint in PC, which comes from the distribution of *teze*-clauses.

As we saw in section 2, *teze*-clauses are disallowed as sentential subjects, instead of which one must use *teni*-clauses or nominalized clauses in the nominative (cf. (13a)), and as sentential complements of nouns, instead of which one must use *tenë*/*tegen*-clauses or participial clauses (cf. (17a)–(17b)). This distributional restriction directly follows from the constraint in (32b). In the case of sentential subjects, the author of the proposition clearly cannot be expressed by the grammatical subject, in violation of (32b), as this syntactic function is taken by the clause itself. In the case of complements of nouns, the author of the proposition cannot be expressed by the subject of the higher predicate, because nouns presumably do not have grammatical subjects (at least in the usual sense).[53]

The existence of the subject-orientation requirement on *teze*-clauses in (32b) can be linked to the fact that, as we saw in section 2.1, *teze* is morphologically the same-subject *-sA* converb of the verb *te* 'say' (cf. (29)). Assuming that *teze*-clauses were initially regular converbial clauses with a compositional interpretation (before becoming a conventionalized construction for reported speech and thought), it is plausible that the earlier subject-orientation requirement has been preserved in *teze*-clauses in the form of the constraint in (32b). The fact that *tenine*-clauses (and also *teni*-clauses, cf. footnote 43), are not associated with a subject-orientation requirement can be traced to the fact that (participle-based) action nominalizations, as opposed to clauses headed by the *-sA* converb, have their own (overt or pro-dropped) subjects, which are not (subject-)controlled (see section 2.2).[54]

[53] A potential exception is a case where the complement-taking noun forms a complex predicate with a higher verb. This is in fact where we find counterexamples to the distributional restriction on *teze*-clauses, see footnote 21.

[54] Further potential evidence for the constraint in (32b) comes from Standard Chuvash examples with verbs taking non-agentive subjects such as *pëlder* 'mean' in (i), cf. footnote 14. Such examples in the corpus contain *tenine*-clauses, suggesting that *teze*-clauses might be avoided here precisely because they would require an animate subject (given that the author must be animate). The hypothesis remains to be tested in future work.

(i) Standard Chuvash

Ku ëntë pirën jal tɕëlx-i-be "kil-de ni-kam da ɕuk, antɕax
this PTL 1PL.GEN village language-POSS3-INST home-LOC PTL-WHO PTL NEG.COP but
xuʐi-zem tɕiłajləxa kaj-m-an" ***te-n-in-e*** *pël-der-et.*
host-PL for long go-NEG-PC.RES say-PC.PST-POSS3-OBJ know-CAUS-NPST[3SG].

'In (the language of) our village this (= the lock hanging from the gate) means that there is no one at home but the hosts have not gone out for long.' (http://ru.corpus.chv.su/kusaru/420016.html)

Given the constraint in (32b), the unacceptability of *teze* with shifted 1st person under 'hear' can be accounted for as a result of the *conflicting requirements* of shifted 1st person and *teze*. Whereas the constraints in (32a) and (33) require the shifted 1st person under *teze* to be controlled by the author participant with the Speaker role, i.e., the ablative source, the constraint in (32b) requires the author participant associated with the *teze*-clause to be the grammatical subject. These constraints cannot be simultaneously satisfied in the case of verbs of hearing, as opposed to verbs of speech and thought, thus accounting for the unacceptability of *teze* with a shifted 1st person with these verbs. To resolve the conflict, a different form of the complementizer which does not have a subject-orientation requirement, must be used, namely the action nominalization *tenine*.

This account correctly predicts that in the absence of shift the constraint in (32a), forcing the author of the embedded proposition to coincide with the Speaker (i.e., ablative source), will not apply. Hence there will be no obstacles for the satisfaction of the subject-orientation requirement of *teze*-clauses in (32s). This explains why *teze*-clauses are compatible with 'hear' if there is no shift. The analysis also entails that *ëlt* 'hear' is construed as an attitude report with the subject being interpreted as the Attitude Holder, along the lines of Özyıldız et al. 2018.

One question that remains is why *teze*-clauses are still dispreferred with 'hear' in the absence of shift, as opposed to *tenine*-clauses. To account for this, we need one more constraint given in (32c), according to which the author participant associated with a SAY-complement, independently of the presence of shift, is preferably the Speaker (if such a participant is present in the semantics). The formulation of this constraint is similar to (32a) except that it: (a) applies to SAY-complements in general rather than to shifted 1st person; and (b) is a "soft" constraint, whose violation leads to dispreference rather than to unacceptability. Since indexical shift in PC is restricted to SAY-complements, the constraint in (32c) will be redundant in the case of complements with shift, doubling the constraint in (32a). However, in the case of complements without shift the constraint in (32c) will have the effect of mimicking the constraint in (32a) except in the form of a preference. The constraint in (32c) might be related to the fact that non-canonical SAY in PC is not fully grammaticalized, even in its more grammaticalized instances such as *teze*, and still retains some traces of its original lexical meaning ('say'). This is indirectly supported by the fact that SAY-complements are restricted to non-factive contexts, as we saw in section 2.

Given the constraint in (32c), the dispreference for *teze*-clauses with 'hear' in non-shifted complements is accounted for essentially in the same way as in complements with shift, namely, as a conflict between the subject-orientation requirement of *teze*, forcing the author of the embedded proposition to be the matrix subject, and the preference for the author to bear the role of the Speaker (realized by the ablative source). However, given that (32c) is a soft constraint, the conflict will be resolved in favor of the satisfaction of the subject-orientation requirement in (32a),

leading to the milder violation of the constraint (32c). In contrast to *teze*-clauses, *tenine*-clauses do not have a have a subject-orientation requirement and will not lead to any violation at all. This explains the observed preference for *tenine*-clauses over *teze*-clauses with 'hear'.

This completes the proposed account of the patterns in Table 1. The account is summarized below in Table 2. As we can verify, the unacceptable patterns involving complements with shifted 1st person (B, C and D) violate either of the two "hard" constraints in (32a) and (32b). Patterns B and D, involving subject-control with 'hear', violate the speaker-restriction on the controller of shifted 1st person in (32a), along with a violation of the similar speaker-preference associated with SAY-complements in (32c), whereas pattern C, involving ablative control, violates the subject-orientation requirement on *teze* in (32b). By contrast, the acceptable patterns in A, involving subject-control with *teze* under 'say'/'think', and E, involving ablative control with *tenine* under 'hear' do not violate any of the three constraints. As for the complements without shifted 1st person, the only dispreferable pattern G, involving *teze* with 'hear', violates the soft constraint in (32c); the other acceptable patterns F, involving *teze* with 'say'/'think', and H, involving *tenine* with 'hear' do not violate either of the constraints in (32b) and (32c), the constraint in (32a) being not applicable.

Table 2. Summary of the account of the (un)acceptability of *teze* and *tenine* depending on the verb type, the presence of shifted 1st person and the choice of the controller for shifted 1st person

		speaker restriction on shift (= (32a))	subject orientation of *teze* (= (32b))	speaker preference on SAY (violable) (= (32c))
complements with shifted 1st person				
A	Nom_1 […$1sg_1$] *teze* $V_{say/think}$	✓	✓	✓
B	*Nom_1 Abl_2 […$1sg_1$] *teze* V_{hear}	*	✓	*
C	*Nom_1 Abl_2 […$1sg_2$] *teze* V_{hear}	✓	✓	✓
D	*Nom_1 Abl_2 […$1sg_1$] *tenine* V_{hear}	*	✓	*
E	Nom_1 Abl_2 […$1sg_2$] *tenine* V_{hear}	✓	✓	✓
complements without shifted 1st person				
F	Nom_1 […$_{no\ shift}$] *teze* $V_{say/think}$	n/a	✓	✓
G	?Nom_1 Abl_2 […$_{no\ shift}$] *teze* V_{hear}	n/a	✓	(*)
H	Nom_1 Abl_2 […$_{no\ shift}$] *tenine* V_{hear}	n/a	✓	✓

5. An alternative: syntactic decomposition of SAY-complementizers

Before concluding this paper, we need to consider an alternative account of the puzzle in Table 1. Suppose that shifted 1st must be controlled not by the Speaker, as was proposed above, but

(uniformly) by the immediately higher subject. Suppose further that the apparent ablative control of shifted 1st person under *tenine* arises because *tenine* is in fact not a complementizer but (synchronically) a nominalization of *te* 'say' with its own (null) subject functioning as the real controller of shifted 1st person, which is, in turn, controlled by the ablative source, as schematized in (34a). For concreteness, we may adopt Özyıldız et al.'s (2018) analysis of Turkish *diye*-clauses (see (31b)) whereby the subject of *tenine* is a null (LOG)ophor, controlled by the logophoric center (realized by the ablative source).[55] Assume further that LOG/the subject of *te* 'say' must have the Speaker role, along the lines of (32a), to rule out control of shifted 1st person by the matrix subject.

(34) a. Nom(holder/hearer)$_1$ … Abl(speaker)$_2$… [LOG$_2$ […V-1sg$_{*1/2}$] *tenine*] V$_{hear}$ ✓

b. Nom(holder/hearer)$_1$ … Abl(speaker)$_2$… [LOG$_{*1/*2}$ […V-1sg$_{*1/*2}$] *teze*] V$_{hear}$ ✓

c. Nom(holder/hearer)$_1$ … Abl(speaker)$_2$… [LOG$_{*1/*2}$ […V$_{no\ shift}$] *teze*] V$_{hear}$ ✗

d. Nom(holder/hearer)$_1$ … Abl(speaker)$_2$… […V-1sg$_{*1/*2}$ *teze*] V$_{hear}$ ✓

e. Nom(holder/hearer)$_1$ … Abl(speaker)$_2$… […V$_{no\ shift}$ *teze*] V$_{hear}$ ✓

Interestingly, a similar decompositional analysis for *teze* where it is synchronically the same-subject converb of the verb *te* 'say', as in (34b), would lead to problems. While it would correctly predict that neither ablative control (due to the subject-orientation of the converb) nor subject-control (due to the speaker restriction on the subject of *te* 'say') of shifted 1st person under *teze* is possible, accounting for the unacceptability of *teze* under 'hear' with shifted complements, it would wrongly predict the unacceptability of *teze*-clauses also with non-shifted complements, as shown in (34c). This is because on the decompositional account the problem with (34b) arises due to the conflicting requirements on LOG/the subject of *te* 'say', independently of the presence of shift. In order to avoid this problem, we would need to assume that *teze* is an (unanalyzed) complementizer in the absence of shift, as in (34b), but a converb in the presence of shift, as in (34a). Alternatively, *teze* may be viewed as a complementizer in both cases, but then we would need to assume that control of shifted 1st person requires *both* subject-orientation and speaker-restriction, as in (34d), in order to account for the unavailability of both subject- and ablative-

[55] For the existence of (overt) logophoric pronouns controlled by an ablative source see Hyman & Comrie 1979. I thank one of the reviewers for raising this issue.

control with shifted 1st person with *teze*. Both of these solutions have their drawbacks. The former solution must abandon an otherwise desirable analysis of *teze* as the same lexical item (in shifted and non-shifted contexts). The latter solution is that the same speaker restriction (cf. (32a)) must be stated twice (as a restriction on the controller of shifted 1st person and on LOG/the subject of *te* 'say'). In addition, both of them leave unexplained the fact that *teze*-clauses are dispreferred with 'hear'.

Apart from these problems with *teze*, there is a further problem with the syntactic decomposition of *tenine*, which arises from what at first glance looks like evidence *in favor of* a decompositional analysis. It turns out that *tenine*-clauses in PC can have overt subjects, as shown in (35).[56] Note that such examples have a rather different meaning than the examples with *tenine* considered so far such as (27a), a point to which I will return immediately below. Specifically, examples like (35) are *second-hand reports* (cf. (37a)). For example, in (35) the current speaker reports the secondary original speaker's (realized as the ablative source) report of the primary original speaker's (realized as the subject of *tenine*) original utterance 'I will work with Sonya', cf. a corpus example from Standard Chuvash in (36). What is important for the argument is that examples like (35a) seem to require a decompositional analysis of *tenine*, suggesting that such an analysis is in principle available for ordinary *tenine*-clauses such as (27a), lending plausibility to the analysis in (34a).[57]

(35) Context: Boris said to someone, 'I will work with Sonya.' Lionila reports this to me, 'Boris said that he will work with Sonya'. I report Lionila's report to Sonya.

ep	*lionilə-ran*	[***boris***	[*san-ba*	*ëɕl-e-p*]	***te-n-in-e***]
1SG.NOM	Lionila-ABL	Boris	2SG-INST	work-NPST-1SG	say-PST.PTC-POSS3-OBJ

ëlt-r-ëm.
hear-PST-1SG

'(Sonya,) I heard from Lionila that Boris$_1$ said that he$_1$ will work with you$_{\text{current addressee}}$.'

[56] *Tenine*-clauses with overt subjects are also possible with the verb *kala* 'say'. Such examples are omitted here for reasons of space.

[57] The analysis in (37a) leaves unexplained the curious fact that *tenine*-clauses with overt subjects are only possible if the clause embedded under *tenine* has a null subject since clauses with overt subject, as in (i), are disallowed. Note that the action nominalization of the verb *kala* 'say' (in construction with a *teze*-clause) does not show this restriction. The reason for the restriction illustrated in (i) is unclear to me and is left for future work.

(i) *ep* [*lionilə* [*boris san-ba ëɕl-et*] {**te-n-in-e* / *te-ze*
1SG.NOM Lionila Boris 2SG-INST work-NPST[3SG] say-PST.PTC-POSS3-OBJ say-SIM.CVB
kala-n-in-e}] *ëlt-r-ëm.*
say-PST.PTC-POSS3-OBJ hear-PST-1SG
'(Sonya,) I heard that Lionila said that Boris will work with you$_{\text{current addressee}}$.'

(36) Standard Chuvash

[***Aslaməşə*** [*aslati* *avət-nə* *tɕuxnʲe* *tɕüretɕe* *ɕumënɕe* *te*

grandma.POSS3 thunderstorm growl-PST.PTC during window near PTL

lar-ma *jura-mastʲ*] ***te-n-in-e***] *as-a* *il-tɕ-ë.*

sit-INF suit-NEG.NPST.3SG say-PST.PTC-POSS3-OBJ mind-OBJ take- PST-3SG.

'[The girl] remembered [her] grandma saying that one mustn't sit next to the window during a thunderstorm.' (http://ru.corpus.chv.su/kusaru/75040.html)

Despite the plausibility of the decompositional analysis of *tenine* in (34a), and also the fact that it can handle the distributional patterns in Table 1, it runs into a semantic problem, hinted to above. The problem is that we would normally assume that syntactic decomposition of *tenine* should go hand in hand with semantic compositionality. At least this seems to be an implicit assumption in Matić & Pakendorf 2013. However, under this assumption, ordinary *tenine*-clauses such as (27a) on this account would *also* be compositionally interpreted as second-hand reports, on a par with examples with overt subjects like (35), except that in this case the primary and secondary original speakers will coincide, i.e., the current speaker will be reporting the original speaker's self-report of his own (previous) speech act, as in (37bi). For example, (27a) will be compositionally interpreted as reporting the original speaker's (Boris's) report of his own original utterance 'I will work with Sonya', i.e., 'I said that I will work with Sonya', rather than the original utterance itself. This does not accurately represent the meaning of (27a), which is a first-hand report, as in (37bii). Note that the problem with the compositional analysis of *tenine* in (37b) (=(34a)) is not that it incorrectly predicts that second-hand reports as in (37bi) are *possible* paraphrases for examples like (27a). Such paraphrases may well be available. The problem rather is that it predicts that such second-hand reports are the *only* possible paraphrases, which seems plainly wrong.[58]

(37) a. Nom_1 Abl_2 [Nom_3 [$_{clause}$ …] *tenine*] V_{hear}

'X_1 heard from Y_2 that Z_3 said that P' (second-hand report)

b. Nom_1 Abl_2 [LOG_2 [$_{clause}$ …] *tenine*] V_{hear}

i. 'X_1 heard from Y_2 that Y_2 said that P' (second-hand report)

ii. 'X_1 heard from Y_2 that P' (first-hand report)

The only way to counter this criticism seems to reject the assumption that syntactic decomposition of *tenine* should correlate with semantic compositionality and instead assume that

[58] I thank one of the reviewers for the clarification of this issue.

tenine is *syntactically* decomposable/analyzable (i.e., is an action nominalization of *te* 'say') while *semantically* non-compositional (i.e., is a complementizer/a complementizer-like element). There is nothing a priori wrong with this move. In fact, it has been suggested in the literature that semantic compositionality of an expression may be lost even when it is still syntactic analyzable (see, e.g., Bybee 2010:25, Jackendoff 2010). For example, an idiom *pull strings* must still be analyzed as containing independent words/constituents (to account for the availability of the past tense morphology on *pull* and further morphosyntactic properties). A similar analysis may probably be pursued for *tenine*-clauses in examples like (27a) and possibly for *teze*-clauses.

Although the decompositional account suggested above cannot be rejected a priori, the constraint-based account offered in section 4 appears to be conceptually simpler, require fewer specific analytical assumptions and presumably be better suited for further cross-linguistic testing. Thus, while the choice between the two accounts must ultimately be decided by further empirical evidence, the constraint-based account in general appears superior to the decompositional account.

6. Conclusion

Poshkart Chuvash presents an interesting system of SAY-complementizers. Apart from the cross-linguistically most common complementizer based on the same-subject converb of SAY (see Matić & Pakendorf 2013), namely *teze*, it has several other complementizers based on participial forms of SAY such as the action nominalizations *teni* and *tenine* and participles proper *tene* and *teken*, all of which have a specialized distribution. This paper focused on the difference between *teze* and *tenine*, which is a complementizer restricted to verbs of hearing, in their interaction with the properties of indexical shift in the language (limited to shifted 1st person agreement in finite clauses). The specific puzzle was that, whereas under verbs of speech and thought shifted agreement is controlled by the matrix subject and requires the complementizer *teze*, under verbs of hearing it must be controlled by the ablative source and requires the complementizer *tenine*, whereas in the absence of shift both *tenine* is merely preferable. The paper proposed an account for this puzzle based on the conflict of three independent constraints: (a) the restriction of the controller of shifted 1st person (= the author participant) to the speaker; (b) the restriction of the author participant associated with *teze*-clauses to the subject; (c) the preference for the author participant associated with SAY-complements to be also the speaker.

The discussion in this paper has shown that the distribution of SAY-complementizers cannot be fully understood without considering patterns of indexical shift in a language and more specifically properties of controller choice for shifted indexicals. At the same time, it has also shown that patterns of indexical shift cannot be fully understood without taking into account the problem of the controller choice for shifted indexicals and the form of the complementizer.

Curisously, these two strands of research — the form of SAY-complementizers and the choice of the controller for shifted indexicals — are rarely discussed separately, let alone together. The paper will fulfill its goal if it draws more attention of researchers in both fields to these important but currently understudied parameters of SAY-based complementation.

Glosses

abl	ablative	npst	non-past
acc	accusative	obj	objective
aux	auxiliary	pass	passive
cop	copula	pf	perfective
cvb	converb	pl	plural
csl	causal	poss	possessive
fut	future	pred	predicative
gen	genitive	prs	present
inst	instrumental	pst	past
ipf	imperfective	ptc	participle
juss	jussive	refl	reflexive
loc	locative	sg	singular
neg	negation	sim	simultaneous
nom	nominative		

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