Merja Sᴀʟᴏ (Helsinki)

Deverbal reflexive and passive in Chuvash[1]

1. Introduction

The question about reflexives and passives in Chuvash is complicated. Usually, the grammatical elements of the Turkic languages are quite similar in many ways; for example, reflexive and passive verbs are kept separate, each having its own suffixes. Some sources, however, claim that the passive category in Chuvash is formed differently than it is in the other Turkic languages, or even that it does not exist in the first place (Ašmarin 1898: 258–259, Ramstedt 1952: 165, 1957: 149, Serebrennikov 1976: 29, Serebrennikov-Gadžieva 1986: 200). The latest Chuvash grammar does not even mention the word *passive* when describing the verbal system (V. Sergeev 2002). Yet, the reflexive forms are quite uniform throughout the Turkic languages. This study tries to prove that both of these old Turkic categories do exist in Chuvash, although the line between them can be blurred and their meanings might overlap. The material in this study has been taken from grammars, dictionaries, folklore and translated fiction. Furthermore, the results have been compared to some extent with some of the languages surrounding it (Tatar, Bashkir, Mordvin and Mari) and also with the most studied language, Turkish. The analysis presented here is based on sentences, which has seldom been done in the reference literature used.

Few of the native reseachers of Turkic languages explain the passive. However, their concept of it can be assumed to be similar to the construction in Russian, German or English, where the active sentence, e.g. a) *Mary slapped John* can have two passive variants: b) *John was slapped* or c) *John was slapped by Mary* (Keenan 1985: 243). In b), the primary actant is demoted from the subject position and replaced by the secondary actant. The primary actant can be present as an agent, as it is in c). The foregrounding feature of passive exists in Chuvash, but the backgrounding does not, which has confused Turkologists for a long time. In Chuvash, even agentless passive sentences are rare and the passive and reflexive are expressed by two suffixes, which can be synonymous.

1.1. Historical background

The grammatical tradition in Russia and in adjacent areas deviates from the Western tradition in that many verbal suffixes are dealt with as voice formatting elements, instead of being dealt with as parts exclusive to the greater derivational system. It has been supposed that all of the Turkic languages have five voices – basic, passive, reciprocal, reflexive and causative (Serebrennikov & Gadžieva 1986: 200, Levitskaja 1988: 269). According to Róna-Tas (1998: 75) Proto-Turkic had four voices: a cooperative (or reciprocal) e.g. *kör-üš-* 'see another', a middle (or reflexive), e.g. *kör-ün-* 'become visible', a passive e.g. *kör-ül-* 'be seen', and a causative, e.g. *kör-t-kür-* 'show' (which might consist of two separate causative suffixes).

1.2. Common Turkic passive suffix *-l-*

According to Serebrennikov and Gadžieva (1986: 200–201) the passive suffix *-l/-ıl/ -il* already existed in the ancient Turkic languages known to us and these forms can be found on various literary monuments. The passive suffix can be added to transitive stems. Levitskaja (1988: 303) points out, however, that an exception does exist: Yakut. The lateral suffix is very productive in Chuvash, yet it is hardly ever used as a passive.

   The original meaning of the suffix *-l-* is to form denominal (probably intransitive) positional verbs characteristically so that the derived verb expresses the acquisition of the property or state indicated by the root noun (Levitskaja 1976: 178–179, 1988: 303–304). It is not difficult to notice that the subject is rather passive with these verbs. Some examples of denominal verbs usually derived from adjectives include *čĕrĕl* 'revive, recover' ← *čĕrĕ* 'living; lively; fresh, new', and *śĕnel* 'be renewed' ← *śĕne, śĕn* 'new; fresh' (cf. Appendix for more examples).

   There are a remarkable number of works dedicated to finding the prototype of the suffix *-l/-il/-ul*. For instance, Serebrennikov (1976: 29–32) places this marker for the passive voice into a group of verbs with similar denominal derivational suffixes. According to Fedotov, the voice suffix *-ăl/-ĕl* in Chuvash also serves as a derivational suffix for forming verbs from nouns (Fedotov 1986: 47). Interestingly enough, *-l-* can also take on a frequentative[2] meaning in the Turkic languages, although this is not very productive (Serebrennikov-Gadžieva 1986: 200). Some other turkologists have presumed that the suffix originates from the copula verb *bol* or *ol* 'to be'; this etymology being first proposed by Kazem-Bek in 1846 (cf. also Ščerbak 1981: 107–108, 150, Fedotov 1986: 48). On the other hand, it has been proposed that the passive is a rather late phenomenon, particularly because Chuvash does not have this feature (Ramstedt 1952: 165, 1957: 149). Serebrennikov (1976: 30, 33) points out that many Turkic languages have a lateral frequentative suffix, and that in the Permic languages,

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2.   The *-l-* is now considered to be a derivational suffix (*slovoobrazovatel'nyj suffiks*).

frequentative suffixes (Komi -*ś*-, Udmurt -*śk*-) have later developed into reflexive suffixes. The line between the passive and reflexive is to a certain extent blurred, due to the fact that stems ending with -*l* currently take a passive suffix -*n*, which can be the result of dissimilation. Older texts show that even lateral stems were followed by passives with -*l* (Ščerbak 1981: 108[3]).

1.3. Common Turkic reflexive suffix -*n*-

The reflexive suffix -*n*/-*ɪn*/-*in* can be found in all the Turkic languages existing today and even in the already extinct Turkic languages too, which can be seen on the aforementioned monuments. This suffix probably already existed in Proto-Turkic (Serebrennikov & Gadžieva 1986: 200). The reflexive voice expresses that the action is directed towards its performer itself as a direct object. The reflexive suffix is mostly added to transitive verbal stems. It is assumed that, at first, it had been both a deverbal and a denominal suffix at the same time (Ramstedt 1952: 169, 1957: 152).

In some cases, the reflexive verbs can be derived directly from adjectives, e.g. *pušan* 'be freed, released from' ← *pušă* 'empty, free', *ăšăn* 'warm oneself, warm up, heat up' ← *ăšă* 'warm, hot; heat; warmly', *sivĕn* 'get cold[er], get cool[er]' ← *sivĕ*, *siv* 'cold, frost' (cf. Appendix). Surprisingly, this development has not been accepted by all scholars. Levitskaja (1976: 166–167) has even invented transitional verb forms similar to the adjectives above: (**puša*-, **ăšă*-, **sivĕ*-) based on findings in other Turkic languages, as has been pointed out by Fedotov (1986: 48).

The origin of this suffix has been traced back to an incorporated 3rd person pronoun that was then connected to the possessive form *an* of the pronoun *ol*. It is generally known that the Turkic languages have preserved traces of the 3rd person pronoun in the form *in* ~ *ɪn*, which had not only the pointing function of *ol*, but also the distincting. The situation is quite the same as it is in the Slavic languages and other languages, too. In Russian, the reflexive suffix has two phonologically conditioned allomorphs -*sja* and -*s'* that originate with the accusative form of the reflexive pronoun *sebja* (Lehmann 1995: 44–49). It is only quite recently that this pronoun has been firmly attached to the verbal stem. The various Slavic languages are in different stages of development on this matter and in Russian, it occurs exclusively as a verbal suffix. It cannot be ruled out that the examples from the Turkic languages are a result of contact with their foreign neighbours (Ščerbak 1981: 111–112, with references).

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3.   Referring to *Osttürkische Grammatik …* by C. Brockelmann, which is not used in this study.

1.4. Previous work on the Chuvash reflexive and passive

1.4.1. 19th century grammars

The first scientific Chuvash grammar (and third one ever printed) *De lingua tschuwaschorum* was written in the beginning of the 1840s by Wilhelm Schott (1802–1889), a German orientalist, sinologist and professor at the University of Berlin. The booklet was tiny, only 32 pages long, but it gave a short description of Chuvash phonetics and morphology and compared this to the other Turkic languages based on regular sound correspondences. As text material, he used the four Gospels translated under the leadership of the bishop of Kazan in 1820 (Benzing 1959: 699). An example of verbal derivation as given by Schott is as follows:

(1)   *onda*   **oz-il-tschi-s**   *wul-sam-yn koz-sam*   (Schott 1841: 31)
       then   open-REF-PRET-PL3 (s)he-PL-GEN eye-PL
       'tunc aperti sunt eorum oculi'
       'then their eyes were opened' (Luke 24:31)

In this context, he revealed that the medium (= reflexive) and passive are equal in form in Chuvash and mentioned that the deverbal suffix *-tar* was used to express transitivity. Schott did not need to write his grammar from scratch; he actually had two predecessors[4]. His main source was the second printed Chuvash grammar *Načertanïe pravil″ čuvašskago jazyka i slovar′, sostavlennye dlja duhovnyh″ učilišč Kazanskoj eparhii 1836 goda*, published anonymously, although this is commonly attributed to Viktor Petrovič Višnevskij (1804–1885), dean and teacher of the Religious Academy in Kazan. Despite its many mistakes and shortcomings, Višnevskij's book served as a textbook for students and scholars for decades afterwards (Alekseev 1970: 207–220, Alekseev & Sergeev 1988).

Another of the earliest mentions of the passive in Chuvash is found in one of the classics of general linguistics *Über das Passivum. Eine sprachvergleichende Abhandlung*, written in 1861 by Hans Conon von der Gabelentz (1807–1874). The author was able to create a typological classification of the passive construction by

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4.   The first Chuvash grammar *Sočinenïja, prinadležaščïja k″ grammatikě čuvašskago jazyka* was printed at the printing house of the St Petersburg's Academy of Sciences in 1769. This has been reliably attested with many quite recently found documents by Dimitriev (1967). In the literature, it is often mentioned erroneously as having been published in 1775 and Egorov (1951: 86) incorrectly assumes that *Sočinenïja* was reprinted at that time. In all likelihood, it was created by a group of missionaries under the command of Veniamin (1706–1782) (born Vasilij Grigor′evič Puček-Grigorovič, Ukrainian of noble birth), the bishop of Kazan and Svijaž, who had in 1769 spent 27 years near the Chuvashes (Dmitriev 1967: 159). Supposedly, this booklet of 68 pages served as the model for the grammars of Mari and Udmurt printed in 1775. (Šamraj 1955, Benzing 1964: 842, Alekseev 1970: 203–207, Fedotov 1987: 10–12). It was reviewed in Germany in 1770. Although the grammar was based on grammars of classical languages, it still had a great impact on the field by convincing many scholars of Chuvash's relationship to the Turkic languages. It is especially valuable due to its rich vocabulary, some of which ended up disappearing later. Višnevskij's grammar is mainly based on the first one (Egorov 1949: 117–118, 1951: 90–92).

successfully using materials from different languages. It is generally known that this polyglot was able to read texts in more than 80 different languages. In his linguistic studies, he dealt with more than 200 languages from many corners of the world. His masterpiece *Über das Passivum* deals with 200 languages that have a passive, its usage and its synchronic connections to other categories. He discussed the Chuvash passive in the chapter entitled "*Passivum durch eine Reflexivform*", where he notes that, unlike the other Turkic languages, Chuvash has two suffixes for the passive: *l* and *n*. He writes:

> "In den türkisch-tatarischen Sprachen scheinen ebenfalls die Formen für Reflexivum und Passivum ursprünglich identisch zu sein, wenigstens ist die Bildung durch *n* beiden gemeinschaftlich, während die Bildung durch *l* meistens nur dem Passivum zukommt. Eine Ausnahme macht hier vielleicht nur das Tschuwassische, das beide Formen für das Passivum hat, dabei aber, wie Schott (*De Lingua Tschuwaschorum* p. 31) ausdrücklich bemerkt, Media und Passiva der Form nach nicht unterscheidet, also beide Formen ebenso gut für das Medium oder Reflexivum wie für das Passivum gebraucht" (von der Gabelentz 1861: 523; he had no examples of the voices in Chuvash).

Soon after that, József Budenz (1836–1892) published a grammatical study of Chuvash based on his own fieldtrips in 1845–1848, Antal Reguly's (1819–1858) notes from 1843, and various grammars and dictionaries (Fedotov 1987: 23–25). He uses four pages to discuss the derivation of words, only one of which he dedicates to a brief mention about the derivation of verbs and that the derivational suffixes *n*, *en*, *in* are used to form passive verbs, such as *oldala-**n**-as* 'be dissappointed, be deceived' ← *oldala-s* 'deceive, cheat, lie' [probably a dialectal form, according to the modern orthography of the literary language: *ultalanas* ← *ultalas*] (Budenz 1863: 66–67).

One of the leading turkologists and a specialist in Chuvash at the turn of the century, Nikolaj Ivanovič Ašmarin (1870–1933), wrote in his grammar from 1898 that Chuvash has no passive voice, only a reflexive voice. All the same, he found some traces of the passive in special expressions, such as:

(2) *Ут*   *окҫ-и*   ***тат-ӑл-ман-ха***[5]   (Ašmarin 1898: 259)
     horse   money-PX3SG   break-REFL-NEG.PTC-EMPH.PART
     'Den′gi za lošad′ ešče ne zaplačeny (= ne otorvany).'
     'The money for the horse has not yet been paid.'

He states that some reflexive verbs are not derivations as they do not have a root word, such as *tapran* 'move (itr. from its place); begin, rise', which has the parallel form *taprat* 'move (tr. from its place); start up, begin'; *pӑtran* 'become muddy', with the

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5.   The numbered examples have been kept as much as possible near the original form, but in the running text they have been unified and written in the Latin alphabet, the derived and stem verbs presented under the examples are presented in the same way.

parallel form of *pătra**t*** 'make muddy, surge; stir; dig, root, turn over, muddle'; and *pălxa**n*** 'get worried; be worried; rebel; become muddy or misty; move (itr.), sway', which does not have a parallel form. In Ašmarin's grammar, the nature of deverbal verbs with the suffix -*n* can be best seen when the root verbs are transitive, e.g. *pară**n*** 'submit, surrender' ← *par* 'give, present; grant', *tıtă**n*** 'begin (itr.), start; stay, stand; stammer' ← *tıt-* 'hold; take; catch; reach; have, own; use, control', and *perĕ**n*** 'hit oneself; touch' ← *per* 'hit; throw, shoot' (Ašmarin 1898: 258–259, cf. Appendix for more examples).

The author reveals that the reflexive nature of the suffix -*l* can be seen in some verbs that have roots ending in the consonants *r*, *s*, *ś* or *t*, e.g. *xuśăl* 'break (itr.), get broken, be cut off, fold up' ← *xuś* 'break, cut, fold' and *tatăl* 'break (itr.), tear; end' ← *tat* 'break (tr.), tear (to pieces), cut, saw; pick, collect' (Ašmarin 1898: 260–261).

1.4.2. 20th century grammars

The next remarkable postwar grammar was printed in 1957 in Cheboksary. In the foreword, the book is said to be the result of collective work, but in fact, only three men participated in writing it, each one having written from two to six chapters. The most troublesome part in describing Chuvash, as with so many other languages as well, fell to Vasilij Georgievič Egorov (1880–1974). He had studied in the Chuvash Pedagogical College and Religious Seminary in Simbirsk, at the Religious Academy in Kazan, and finally, at the University of St Petersburg under the tutelage of many famous scholars (Fedotov 1987: 66–67). Unlike his fellow researchers, Egorov surprisingly sees in the reflexive suffix -*n* relics of the former 2nd person pronoun and divides the suffix into several groups based on its meanings (similar to the way this has been done in Russian grammars, too):

Proper reflexives, where the subject is also the object of action:
śapăn 'take a sauna bath, slap o.s. with a sauna whisk' ← *śap* 'hit',
parăn 'surrender, give up' ← *par* 'give',
muxtan 'boast' ← *muxta* 'praise',
saltăn 'undress' ← *salt* 'open, take off, let go'.

Reflexives expressing changes in subject's physical or mental state:
savăn 'be happy, be pleased' ← *sav* 'love, like',
śĕklen 'rise, get up' ← *śĕkle* 'raise, lift up',
puśtarăn 'gather (itr.)' ← *puśtar* 'collect, gather',
tavrăn 'return (itr.), go back, turn back' ← *tavăr* 'return (tr.), bring back'.

Reflexives, where the subject experiences something it has no effect over:
avăn 'bend (itr.)' ← *av* 'bend (tr.)',
kurăn 'be seen' ← *kur* 'see',
üsen 'breed, increase (itr.)' ← *üs* 'grow (itr.)' (Egorov 1957: 167–168).

The passive verbs have been divided into two groups based on their meaning:

> Reflexive-passive, which is said to be weakly developed:
> *tɪtăn* 'get arrested' ← *tɪt* 'hold; take; have',
> *vitĕn* 'get covered' ← *vit* 'cover',
> *šumlan* 'get counted' ← *šumla* 'count'.

> Reflexive-medial verbs including all -*l* cases, stems ending with -*r*, -*s*, -*ś* or -*t*:
> *xuśăl* 'be broken' ← *xuś* 'break',
> *sarăl* 'broaden, widen (itr.)' ← *sar* 'broaden, widen (tr.)',
> *vĕrĕl* 'catch [a] cold after being ill' ← *vĕr* 'blow' (Egorov 1957: 169–170).

In the next decade, Ivan Andreevič Andreev (1928–), a pupil of Egorov, presents four voices: 1) basic *kăškăr-* 'shout', *xăvala-* 'follow, chase', *pulăš-* 'help'; 2) reflexive-passive, e.g. *xuśăl-* 'break (itr.)', *păsăl-* 'go bad, be spolt', *ĕślen-* 'go well'; 3) reciprocal *śapaś-* 'fight (each other)', *pallaš-* 'get acquainted with (a person/thing)', *tĕkĕš-* 'butt, gore, toss', *perkeleš-* 'shoot at each other'; and 4) causative (Russ. *ponuditel'nyj*) *kultar-* 'make laugh, entertain', *čakar-* 'back, push away', *tart-* 'make run'. The last one can be added to the other voices, as can be seen in *vit-ĕn-ter-* 'make cover one-self', which has both a reflexive-passive and a causative suffix. Slightly confusing is the fact that the author adds that all of the voice-formatting suffixes can act as word-formatting suffixes: *tap-ăn-* 'attack' ← *tap-* 'kick, push, hit', *ut-tar-* 'walk' ← *ut-* 'walk' (-*tar* seems to be semantically empty with this stem) (Andreev 1966: 54–55).

    In 1975, Gennadij Emel'janovič Kornilov's (1936–) expansive article on the reflexive and passive voices in Chuvash was published. He writes that the passive constructions can have two or three participants and that they do not correspond to passive structures in other languages such as Russian. The closest are reflexive structures, which have two participants: *śurt tăvănat'* cf. *dom stroitsja* 'the house is being build', *pulă tɪtănat'* cf. *ryba lovitsja* 'the fish is being caught'. These now exist in the literary language and have been taken from the lower dialects; they seldom occur in the upper dialects. Reflexive verbs can be formed from transitive or intransitive stems: *üs-* 'grow' → *üsĕn-* 'go off, pass off', *śit-* 'come, reach' → *śitĕn-* 'grow up, ripen' (Kornilov 1975: 46–47). He provides extremely detailed information on how reflexive and passive suffixes, with their numerous allomorphs, are used to form verbs from denominal and deverbal stems. According to him, the Turkish type of constructions with three participants has developed under Arab influence; this can be seen in (3) in Tatar:

(3) *komanda   oficer   tarafınnan*[6]   **bir-el-de**   (Kornilov 1975: 72)
    order[s]   officer   POP 'from the side of'   give-PASS-PAST.3SG
    'komanda otdannaja oficerom'
    'order[s] was given by the officer'

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6.   Even the word itself is a loanword from the Arabic *taraf* 'side' (Kornilov 1975: 72).

There is also a way in Chuvash to express passive structures with three participants: the comitative or instrumental suffix *-pa/-pe ~ -pala/-pele ~ -palan/-pelen*, which corresponds to the Ancient Turkic postposition *bilä, bilän* 'with', as seen in Chuvash (4), and Tatar (5):

(4) *śil-pe(len)*   *uś-ăl-na*   (Kornilov 1975: 72)
     wind-INSTR(POP'with')   open-PASS-PERF.PTC
(5) *žil*   *belän*   *ač-ıl-gan*   *išek*   (Kornilov 1975: 72)
     wind   POP'with' open-PASS-IIPAST   door
     'the door was opened by the wind'

He has noted that sometimes the reflexive suffix can have a passive meaning, which can be seen from the following example:

(6) *ală*   *supăń-pe*   *lajăx*   *śăv-ăn-aťʹ*   (Kornilov 1975: 73)
     hand   soap-INSTR   well   wash-PASS-PRES.3SG
     'the hand(s) can be cleaned well with soap'[7]

Sometimes the passive and reflexive suffixes in Chuvash are identical in meaning: *pĕkĕr-ĕl-* or *pĕkĕr-ĕn-* 'bend, crook (itr.)', which has also been borrowed by Mari as *pügirn-aš* (Kornilov 1975: 73–74).

In a concise account of Chuvash in a relatively new reference book, the reflexive voice is said to be formed with *-(Ă)n*, e.g. *śăvăn-* 'wash oneself' ← *śu-* 'wash (tr.)', although transitive verbs ending in *-t, -s, -ś, -r* form the reflexive with *-(Ă)l*, e.g. *uśăl-* 'open (itr.)' ← *uś-* 'open (tr.)'. Verbs with *-(Ă)n* sometimes function as passives, e.g. *śırăn-* 'be written' ← *śur-* 'write'. The active voice lacks the suffix, cooperative-reciprocals are formed with *-(Ă)ś*, and causatives with *-(t)tAr* (Clark 1998: 443). The same distribution can be found in many Chuvash textbooks and minor works on grammar (V. Sergeev 2000, L. Sergeev 2004).

1.4.3. 21th century grammar

In spite of its modest layout, Vitalij Ivanovič Sergeev's (1942–) grammar from 2002 is quite comprehensive, almost 300 pages in all. The contents are detailed, the verb section consisting of approximately 65 pages. The book is clearly meant for native speakers of Chuvash, since most of the examples have not been translated into Russian. Not all of the voices can be formed with all of the verbal stems; there are remarkable lexical restrictions. Morphologically, the voice in the Turkic languages comes between the concepts *slovoizmenitel'nyj* and *slovo-* or *glagoloobrazovatel'nyj*, and a new

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7. According to others this is not proper Chuvash. Nonetheless, even though it might not be the best example, the two main meanings for *śăvăn-* in dictionaries are passive and reflexive.

term *osnovoobrazovatel'nyj* has even been created for it (Grunina 1987: 14). In some textbooks of higher education, the term *reljacionnyj* has been used. Traditionally, Chuvash lexicography has treated voice forms as word forming and included them in dictionaries (V. Sergeev 2002: 234).

Nowadays, the passives described in some earlier grammars are no longer accepted. Structures such as the ones in (7) have developed under Russian influence and they are not considered to be proper Chuvash (V. Sergeev 2002: 236–237):

(7)   *Kĕneke   xitre   vula-n-aťʹ*   (V. Sergeev 2002: 236–237)
      book   nicely   read-PASS-PRES.3SG
      'Kniga xorošo čitaetsja.'
      'The book is nice to read.'

1.4.4. Compound derivatives connected to reflexives

According to Andreev, the denominal verbal suffix *-lAn* is a compound derivative suffix from *-lA* and *-ăn, -ĕn, -n*, (the latter forming mainly intransitive verbs, e.g. *jĕpe-n-* 'to get wet, damp'). The suffix *-lAn* forms reflexive verbs, such as *av-lan-* 'get married (of a man)' (← *av 'house') (Levitskaja 1976: 166), cf. Turkish *ev-len* 'id.' (← *ev* 'home, house'), *ikkĕ-len* 'hesitate' (← *ikkĕ* 'two, twice') (Andreev 1966: 54, Fedotov 1986: 57). The suffix *-lAn* is traceable back to all of the Turkic languages. At least one minor study has been dedicated to these verbs in Chuvash (Orlova 1976). The verbs formed with the suffix *-lAn* are quite common and are one and a half times more common than verbs with the suffix *-lA*. The *-lAn* derivatives have been divided into six groups, all having nouns as their stem word, mainly substantives and adjectives expressing the emergence of a property or the changeover to a new state. However, in most cases, the *-lA* derivatives are formed from words denoting instruments and objects (Orlova 1976: 157–158).

The suffix *-lAn* has been borrowed into Mari[8] from Chuvash or Tatar in many denominal verbs, e.g. *sĕmsĕr-len-* → *sümsır-lan-aš* or *xajar-lan-* → *ajar-lan-aš* 'get provoked/angry/worried'. Hesselbäck (2005: 113) writes that it is certain that this has been copied from the Turkic languages, since it mainly occurs with adjective and substantive stems of Turkic origin (Alhoniemi 1985: 162, 1993: 151, without mentioning the suffix's etymology; Fedotov 1986: 57–58). As the analyzed part of this study concentraites on deverbal verbs, *-lA* and *-lAn* verbs have more or less been left out.

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8.   In Hill Mari, the suffix *-lAn* is (more) productive.

2.   Materials and methods

2.1. The data

The first textual sources used was *Gebräuche und Volksdichtung der Tschuwassen* (= Gebr), collected in 1900 by Heikki Paasonen (1865–1919), but published only 1949 by other peoples[9]. This material comes mainly from Novoye Yakushkino in the Buguruslan district, Samara government. The second source used was John R. Krueger's *Chuvash Manual* from the year 1961 (= ChM). These have been very convenient due to the German or English translations. A comprehensive Chuvash–Russian dictionary *Čuvašsko-russkij slovar'* (= ČRS), a smaller Chuvash–Finnish dictionary Moisio–Fomin–Luutonen: *Tšuvassilais-suomalainen sanakirja* (2007) (= TšSS), and a small reference book by Ašmarin: *Sbornik" čuvašskih" pěsen"*[10] (1900) (= Sbor), with material from 11 villages in 3 governments, have also been used. On the referee's recommendation, the electronic corpus *Pavlik Morozov* (= PaMo) has been studied. This originally Russian story by Vitali Georgievič Gubarev of a young pioneer and his hard fate in the 1930s has been translated into many Finno-Ugrian languages and Chuvash, too. The electronic corpus consists of 1,608 sentences on 50 pages. These parallel corpora are made by and kept in the Research Unit for Volgaic Languages at the University of Turku.

2.2. Methodology

For the sentences in this study, I have applied valence roles from case grammar and examined the relations between deverbal verbs having *-n* or *-l* suffix in order to illustrate the syntactic changes caused by the suffix. For the analysis, I have used the same roles as distinguished in Geniušienė (1987: 39–41). In the passive sentences, I have distinguished between three roles for the semantic subjects or first actants: AGENTIVE, EXPERIENCER, and CAUSER (or FORCE).

At the top of the subject hierarchy is the AGENTIVE – an animate, who is consciously controlling his/her actions. The EXPERIENCER is an animate, who participates in an action, but does not influence it, the action influencing its consciousness instead. The CAUSER is a moving meteorological force, not materia. The fourth role, NEUTRAL, occurs only in automative expressions, it is a participant in a space or process, but the action does not affect it considerably (applied to the Ob-Ugrian languages, see Kulonen 1989: 11). The term NEUTRAL is approximately the same as Anderson's (1971: 37) NOMINATIVE. The fifth role, ACTOR, occurs only in reflexive utterances, when the subject and object conflate.

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9.   Some parts of the collection have been sent some years later to Finland by Paasonen's (only?) informant, more details in (Salo 2010b: 70, 88–89). Paasonen's influence on other turkologists is discussed by Fedotov (1987: 44–46).
10.   In the examples, the original orthography has been slightly altered.

For semantic objects or second actants, I have two roles: GOAL/PATIENT and CONTENT. One role is sufficient for the semantic dative: BENEFACTIVE, a living being, who benefits from the action. Sometimes other roles are necessary, too: LOCATIVE, which expresses motion into/towards, or the location of the referent or time, SOURCE, which expresses the starting point of a motion or an indicator of origin that can express time, too. Finally, the role INSTRUMENT, the inanimate participant of action, has also been included. These roles have been used in describing basic sentences in Finnish (Hakulinen & Karlsson 1979: 102–104). I have already used these roles to analyze verbs in Mordvin (Salo 2006b, 2010a) and Mari (Salo 2006a).

In order to better analyze the Chuvash verbs that have an -*l* or -*n* suffix, I have applied the tripartite division of derivational suffixes created by Kangasmaa-Minn (1982: 43–44). She has started to use the terms CHANGER (Finn. *muuttaja)*, TRANSFORMER (*muuntaja)* and MODIFIER (*modifioija)*. CHANGER moves words from one main category to the other: nouns into verbs, and vice versa. It might be the same as the Russian term *slovoizmenitel'nyj*. TRANSFORMER operates in a single category causing changes to the argument structure, e.g. changing intransitive verbal stems into transitives and transitives into intransitives. The number of (obligatory) arguments or actants decreases or increases. It appears to be the same as the Russian term *slovoobrazovatel'nyj*. The third group, MODIFIERS do not usually cause any great changes in the behaviour of verbs; they just add some nuances. This is the same division I have used in my Master's Thesis on Erzya Mordvin derivatives (Salo 1988).

3.   Data analysis

3.1. Passives

All Chuvash grammars agree that passives occur very infrequently. The passive is only used if an agent is not present (Benzing 1943: 87). Often the passive meaning is combined together with the reflexive in describing derivational suffixes. Benzing has searched through all 17 volumes of Ašmarin's dictionary for passive examples and based on his findings, he went on to state that the passive is rare: *kas-ăn-* 'rubit' sam soboju; cut oneself', cf. *kas-ăl-* 'byt' razrezyvaemym; be cut'. Furthermore, he states that the latter often has more of a reflexive meaning than a passive meaning (Benzing 1959: 720). In an active sentence, the first or primary actant appears in the subject position. When the primary actant is demoted from the subject position, its place is occupied by a secondary actant. In Chuvash, the AGENTIVE is always hidden in passive sentences, although it can be inferred that the actant is animate. In Mari, the situation is similar to this. In Mordvin, however, the agent in the dative is possible, yet not very common (Salo 2006a: 333, 2006b: 172–176). The surface subject has the semantic role of GOAL/PATIENT, as in (8) to (11). With the passives, the derivative suffix is a TRANSFORMER.

(8) *Sămax-sem ujrăm   sasă-sem   śine   **pajlan-aććĕ**.*   (ChM 200, 249)
word-PL   separate   sound-PL   POP(into, on)   be.divided-PRES.3PL
'Words are divided into separate sounds.'

pajlan 'divide (itr.), be distributed'
← *pajla* 'divide (tr.), share, distribute'
← *paj* 'part, share; branch, section; detail'

(9) *tărn-i   **külĕn-nĕ**,   te-t,   śerźi*   (Gebr 185)
crane-PX3SG   get.harness-PERF.PTC   say-PRES.3SG   sparrow
akapuź-ĕ   tıt-nă,   te-t.
plough-PX3SG   take-PERF.PTC   say-PRES.3SG
'Der Kranich war vorgespannt, der
Sperling faßte an der Pflugsterze.'
'The crane was harnessed, says, the sparrow took
ahold of the plough handles, says.'

külĕn 'get harnessed, go (enter) into'
← *kül* 'harness (verb)'

Sometimes the dictionary says that the *-an* verb has a passive meaning, as in (10):

(10) *çăka   йывăç   лайăx   **чавăн-ать***   (ČRS 576)
lime.tree   wood   good   be.hollowed-PRES.3SG
'the wood of a lime tree is good for hollowing out'

čavăn 'be dug out, be hollowed'
← *čav* 'dig, scratch, paw, hollow; claw, scrape'

(11) *šămi-zem   pir   śir-e   **puśtar-ăn-nă**.*   (Gebr 192)
bone-PL   one   place-DAT/ACC   collect.-PASS-PERF.PTC
'Die Knochen waren an einer Stelle zusammengekommen.'
'The bones were collected into one place.'

puśtarăn 'collect, gather (itr.), be collected, be gathered'
← *puśtar* 'collect, gather (tr.)'

For the verb in (11), only the reflexive reading is indicated (TšSS: 141): *pĕr śĕre puśtarăn* 'gather (itr.) together in one place' and *śula tuxma puśtarăn* 'get ready for a journey'. Another source gives more readings including several passives: *tırpul xăvărt puśtarănat́* 'the corn shall be reaped quickly' and *vĕtĕ śırla čas puśtarănmast́* 'small berries are not picked quickly' (ČRS: 319).

3.2. Automatives

In automative sentences, the AGENTIVE is never present. The occurrences arise spontaneously. The majority of Chuvash verbs with an *-n* or *-l* suffix represent a specific type of agentless passive. For this group, Kulonen (1985: 290) has started to use the term *automative* for the active-passive axis alongside the reflexive, as reflexive and passive are often loosely used to refer to several different semantic categories. In automative events, the AGENTIVE is absent from both the deep and surface structure. The only actant of this type of verb, the subject, does not control the event or state. Many automative verbs can be derived from adjectives, e.g. *măkal-* 'become blunt, dull; become stupid' ← *măka* 'blunt, dull; stupid', *śutal* 'twinkle, shine; lighten; dawn, brighten up' ← *śută, śut* 'light; bright, enlightenment, education', *tasal* 'become clean, be purified; dissapear, be lost' ← *tasa* 'clean, tidy' (Levitskaja 1988: 303–304). (Depending on the arguments, the reading can also be passive.) With nominal stems the derivative suffix is a CHANGER, with verbal stems being TRANSFORMERS. There are two kinds of subjects for the types of verbs: EXPERIENCERS (12, etc.) or NEUTRALS, as in *śěśě măkalnă* 'the knife became blunt' (TšSS 97).

(12) *Xĕr-не   хора   ан   кал-ăр,*   (Sbor 42)
     girl-DAT/ACC   black   NEG.IMP.PART   say-IMP.2PL
     Ар-па   вырт-сан   сарал-ать.
     husband-INSTR   lie-CRD.GER2   turn.yellow-PRES.3SG
     'Don't say that the girl is black, when she sleeps
     with (her) husband, she turns yellow.'

     saral, sarăx 'turn yellow'
     ~ *sarat* 'make yellow'
     ← *sară, sar* 'yellow'

Cognitive and mental verbs form an important group of automatives. Although the first actants are EXPERIENCERS, they are not visible in the surface structure and are hidden somewhere in the background. In these cases, the second actant is the CONTENT, which does not participate in any way in the situation expressed by the verb. Often an argument in a local case is also present and the SOURCE in the ablative case (13) or LOCATIVE (14).

(13) *Ката-ран   çută   корăн-ăть.*   (Sbor 41)
     far-ABL   light   be.seen-PRES.3SG
     'Far away, a light is visible.'

     korăn, kurăn 'be seen, become visible'
     ← *kor, kur* 'see, look; experience, endure, hold, bear'

(14) *Śül-te,   pĕlĕt   aj-ĕnče   //*   (ChM 212, 262)
high-LOC   cloud   under-LOC.PX3SG
*tărri   jur-ri   **iltĕn-et**,*
lark   song-PX3SG   be.heard-PRES.3SG
'In the sky under the clouds // the song of the lark can be heard;'

iltĕn 'be heard'
← *ilt* 'hear', metathetic *itle* 'listen; obey'

The following examples have an external participant in the instrumental case *-pa/-pe*, which can only be considered a reason, not an agent. In some examples from Mari in an earlier study, I considered the *wind* to be the only representative of the FORCE agent (Salo 2006a: 335–336). This could also be the case in Chuvash, too, as can be seen in examples (15) and (16). Nonetheless, they are borderline cases. More examples of INSTRUMENTS: *ujsem jur**pa** vitĕnčĕś* 'the fields were covered with snow' (ČRS 82), *xĕvel**pe** xĕrtĕn* 'tan in the sun' (ČRS 555). In example (17), the eyes in the instrumental case, are an INSTRUMENT.

(15) *epĕ sasă-pa   **văran-t-ăm***   (Gebr 120)
I   voice-INSTR   waken-PRET-1SG
'Ich erwachte, als sie rief.'
'I woke up, when she shouted.'

văran 'wake up (itr.)'
~ *vărat* 'wake up, revive; stay awake'

(16) *Çил-пе   пĕрле   çĕмĕрт   **çыхлан-ать***   (Sbor 5)
wind-INSTR   together   bird.cherry   get.tangled-PRES.3SG
'The leaves of the bird cherry are tangling up in the wind.'

śıxlan 'get mixed, get tangled'
? ← *śıx* 'knit, twist; tie, knot'

(17) *Kuś-ĕ-sem-pe   pălx-nă   čux   //*   (ChM 214, 263)
eye-PX3SG-PL-INSTR   look-PERF.PTC   POP(when)
*kaččă-n   čĕr-i   **śĕklen-et**.*
young.man-GEN   heart-PX3SG   surge-PRES.3SG
'When she looked with her eyes // men's hearts surged.'

śĕklen 'rise, ascend; grow; start, begin, become inspired'
← *śĕkle* 'raise; carry, bear; stimulate, encourage'

In (18), the *-n* and *-l* suffixes, here used with the same verbal stem, are even mutually exchangeable in the given context.

(18) *йывăç-сем*   *çил-пе*   **майăл-аççĕ** / **майăн-аççĕ**   (ČRS 437–438)
tree-PL   wind-INSTR   bend-PRES.3PL / bend-PRES.3PL
'The trees are bending in the wind'

tajăl, tajăn 'bend, lean (itr.), sway, sink down'
← *taj* 'weigh; bend, lean (tr.), press down'

In the following two examples, the door opens and closes, probably by itself. Actually, the involvement of a hidden AGENT cannot be excluded. But in (21), the tree fell down all by itself.

(19) *śapla* *kala-san-ax*   *alăk-ĕ*   *te*   **uśăl-nă**…   (Gebr 108)
so   speak-CRD.GER2-EMPH.PART   door-PX3SG   and   open-PERF.PTC
'Kaum hatte er diese Worte gesprochen, so öffnete sich das Tor, …'
'No sooner had he spoken these words than the door opened, …'

uśăl 'open (itr.); start, be established; be cleaned, air; freshen up'
← *uś* 'open; start (to do something), establish'

(20) *Прийомăн* *алăк-ĕ* – *йĕс*   *алăк,* …   (Sbor 11)
consulting   door-PX3SG brass   door
Епĕр   *кĕр-се*   *кай-сассăн*   **хопăн-атъ**.
we   enter-CRD.GER   go-CRD.GER2   close-PRES.3SG
'The consulting door – the brass door, … when we enter, it closes.'

xopăn 'close (itr.)'
← *xop* 'close (tr.)'

(21) *juman-ĕ*   *xăjĕssĕnex*   **kasăl-sa**   (Gebr 109)
oak-PX3SG   by.itself   be.cut-CRD.GER1
vaklan-sa   *vırt-nă*.
break-CRD.GER1   lay-PERF.PTC
'Die Eiche fiel von selbst um und lag in Stücken auf der Erde.'
'The oak fell down by itself and lay chopped up into pieces on the ground.'

kasăl 'be cut, be chopped; be spoilt'
← *kas* 'cut, chop, tear'
vaklan 'get smaller, get chopped, crumble (itr.)'
← *vakla* 'make smaller, chop, crumble'
← *vak, vakă* 'small, little, minor'

In (22), the subject is inanimate, but with an animate subject, the verb would be reflexive:

(22) *Шерте   карта-на   пыр-са   **çапăн-чĕ***   (PaMo 958)
pole   fence-DAT/ACC   go-CRD.GER1   bump-PAST.3SG
'A pole bumped into the fence.'

śapăn 'bump [into], crash into'
← *śap* 'hit, slam, slap'

In (23), the reason is expressed with the ablative case. In (24), the tree as a subject is situated between EXPERIENCERS and NEUTRALS; it lives and dies and reacts to climate and seasons. In (25), the SOURCE is in the ablative case; in (26), the LOCATIVE is in the dative/accusative case.

(23) *kurăk-sem   jĕpe-ren   pičče*   (Gebr 116)
grass-PL   moisture-ABL   elder.brother
jĕpen-se   *śit-r-ĕ*.
become.wet-CRD.GER1   perf.vb-PRET-3SG
'Der Bruder wurde von dem feuchten Gras ganz naß.'
'The brother was quite wet from the damp grass.'

jĕpen 'get damp, get wet, grow moist'
~ *jĕpet* 'water, wet, moisten'
← *jĕpe* 'wet, moist, damp; dampness, humidity'

(24) *хăва   йăвăç   **авăн-ать**;*   (Sbor 50–51)
willow   tree   bend-PRES.3SG
'The willow tree bends;'

avăn 'bend, break, crook (itr.)'
← *av* 'bend, break, crook, twist (tr.)'

(25) *Атте-пе   анне-рен   **уйăрăл-т-ăм**;*   (Sbor 48–49)
father-INSTR   mother-ABL   leave-PRET-1SG
'I said farewell to my father and to my mother;'

ujărăl, ujrăl 'be separated, fall apart; come loose/off/out'
← *ujăr* 'divide, separate; determine, nominate; identify, recognize'

(26) *Шыв-а   йар-сан   кĕмĕл   **ирĕл-мĕ**.*   (Sbor 22)
water-DAT/ACC   put-CRD.GER2   silver   melt-NEG
'Silver doesn't melt if you put it in the water.'

irĕl 'melt, dissolve (itr.)'
?← *ir* 'mix, crush, knead'

3.3. Reflexives

In the reflexive utterances, the subject (AGENTIVE) and object (PATIENT) have been conflated, and the only obligatory actant is ACTOR, which fills both roles. Benzing's (1959: 720) reflexive examples are e.g. *śăvăn-* 'wash oneself' ← *śu-* 'wash', *vitĕn-* 'cover oneself' ← *vit-* 'cover'. The reflexive derivational suffixes are TRANSFORMERS. A typical example is *tumlan-* 'dress' (27). Often, when the subject changes its location, a LOCATIVE in the dative(/accusative) is present, as in (28).

(27) *xaj   kaxal   **tumlan-sa**   tux-nă   ta...*   (Gebr 108)
     that   lazybones   dress-CRD.GER1   go.out-PERF.PTC   and
     'Der Faulenzer zog sich an, ging hinaus, …'
     'The lazybones got dressed, went out,…'

   tumlan 'get dressed in (festival dress, uniform)'
   ←← *tum* 'dress, clothing' (obviously the form **tumla* has disappeared)

(28) *Irxi   zarjadka   tu-r-ĕś   te   šıv-a*   (ChM 198, 247)
     morning   exercise   do-PRET-3PL   and   water-DAT/ACC
     *kĕr-se   **čüxen-čĕ-ś**.*
     go.in-CRD.GER   wash-PAST-3PL
     'They did morning exercises and bathed (washed
     themselves) by going in the water.'

   čüxen '[s]plash, dabble; wash o.s.; pour over o.s., have bath; swing, sway'
   ← *čüxe* 'rinse, wash out; disinfect (the seeds)'

In my earlier studies on Mordvin (Salo 2006b: 181–182, 2010a: 80), I have separated a small group of reflexives that have the special meaning of moving in some direction and named them *intentionals*. The second role is very frequently lative or locative LOCATIVE. This kind of meaning is also quite common among the Chuvash verbs presented in (29) to (31). In this function, even a verbal structure *kur-ma* 'to see' is possible (30).

(29) *"tură   man-a   xa-m-a   **pıtan-ma**   xuš-at,*   (Gebr 181)
     God   I-DAT/ACC   self-PX1SG-DAT/ACC   hide-INF   order-PRES.3SG
     *ăś-ta   **pıtan-as?"**   te-nĕ.*
     where-LOC/LAT   hide-FUT.PTC   say-PERF.PTC
     "'Gott befiehlt mir, mich zu verstecken, wo habe ich mich zu verstecken?'"
     "'God told me to hide myself, where shall I hide myself?'"
     [he] said. [The boy is talking to his horse.]

   pıtan 'hide oneself, go into hiding; be hidden'
   ~ *pıtar* 'hide [away], conceal, mask; bury, cover'

(30) *pĕtĕm śın tuj kur-ma **puxăn-nă.**   (Gebr 231)
     all people wedding see-INF gather-PERF.PTC
     'alle Leute versammelten sich, um die Hochzeit zu sehen.'
     'all the people gathered to see the wedding.'

     ← **puxăn** 'assemble, gather (together) (itr.)'
     ← *pux* 'gather, collect'

(31) *kil-ne* **tavrăn-san** *man-a* *xa-măr*   (Gebr 121)
     home-PX3SG.DAT return-CRD.GER2 I-DAT/ACC self-PX1PL
     kil-e *jeś-r-ĕ.*
     home-DAT/ACC drive-PRET-3SG
     'Nachdem wir heimgekehrt waren, führte er mich in unser Haus.'
     'After we came home, he drove me to our own house.'

     tavrăn 'come back, return, arrive'
     ← *tavăr* 'turn around, wrap; return, give back'

A SOURCE in the ablative is present in (32). Obviously, the temporal meaning can also be in the second role, as in (33).

(32) *Văl* *amăshĕ-nchen* *çămăllăn-ax* **vĕçerĕn-chĕ**   (PaMo 713)
     (s)he mother-PX3SG.ABLAT easily-EMPH.PART withdraw-PAST.3SG
     'He drew apart easily from his mother.'

     vĕśerĕn 'withdraw [from], free'
     ← *vĕśer* 'loosen, release'

(33) *çulla* *кашкăр* **тапăн-ма-ст** *те-ççĕ,* …   (PaMo 5)
     in.summer wolf attack-NEG-AOR.3SG say-PAST.3SG
     'it was said that wolves do not attack in the summer,…'

     tapăn 'attack'
     ← *tap* 'kick, push, hit'

Sometimes the local element can be included in the meaning of the verb:

(34) *Чăххи-сем* *шавлăн* *вĕç-се* **салан-чĕç,**   (PaMo 1240)
     hen-PL loudly fly-CRD.GER1 scatter-PAST.3PL
     'Hens flew off loudly in different directions,…'

     salan 'undress; scatter; loosen'
     ~ *salat* ' spread (tr.); take to pieces'

The next verb *tipĕn-* 'dry up' is marked as a reflexive verb in the dictionary, meaning that it is impossible for it to have an object.

(35) **типĕн-ме** *пӳрт-е*   *кĕр*   (ČRS 483)
       dry-INF   house-DAT/ACC   enter
       'come inside to dry (one's clothes)'

       tipĕn 'dry up (one's clothes, but itr.)'
       ← *tip* 'dry (itr.), become dry' ~ *tip, tipĕ* 'dry; dry place, dryness, hot weather season'

In my material, (36) is especially interesting due to the fact that it proves that the suffix *-l-* in Chuvash can also be read as a reflexive. Examples (37) and (38) present another case where the suffixes *-l-* and *-n-* can be used equally. With a NEUTRAL subject, the reading would be automative, e.g. *păr xuskančĕ* 'the ice moved' (ČRS 567).

(36) *Алăк-ран*   *тух-р-ăм,*   **тайăл-т-ăм** –   (Sbor 48–49)
       door-ABL   go.out-PRET-1SG   bend-PRET-1SG
       'I went out the door and bent (down) –'

       tajăl 'bend, lean (itr), sink down'
       ← *taj* 'weigh; bend, lean (tr), press down'

(37) *хресчен-сем*   *кĕрешĕв-е*   **хускал-нă**   (ČRS 567)
       peasant-PL   battle-DAT/ACC   move-PERF.PTC
       'the peasants started to move to the battle'

(38) *ан*   **хускан***!*   (ČRS 567)
       NEG.IMP.PART   move.IMP
       'don't move!'

       xuskal, xuskan 'move, start to move (itr.)'
       ~ *xuskat* 'move, start to move (tr.)'

3.4. Zero meaning

Since Ašmarin, it has been recognized that some Chuvash verbs can take the reflexive suffix *-n* without this changing the original meaning of the verbs, e.g. *xĕpĕrte* or *xĕpĕrten* 'be happy, rejoice' (Ašmarin 1898: 260). In this case, the derivative suffix can be considered to be semantically empty and is then classified as a MODIFIER; therefore the term *zero meaning* is suitable. Such pairs are easiest to find in dictionaries, e.g. *xĕr* and *xĕrĕn* 'become hot' (ČRS 553–554), or *šıś* and *šıśăn* 'swell, puffy, distended; get greasy, get thick[er]' (ČRS 627, TšSS 272). The first argument can be (43)

EXPERIENCER, (40) quasi-EXPERIENCER, or (39), (41)[11], (42), (44), NEUTRAL. Often a reason or INSTRUMENT in the instrumental case can be present, as can be seen in (42), (43), and (44). In the following three pairs of sentences, the suffix has zero meaning:

(39) *ура-на*　　*пылчăк*　***çыпăç-нă***　　　　　　　　　　(TšSS 186)
    foot-DAT/ACC mud   stick-PERF.PTC
    'the mud stuck to [his/her] feet'

(40) *хуçăл-нă*　　　　*шăмă*　***çынçăн-нă***　　　　　　　　(ČRS 433)
    be.broken-PERF.PTC bone   stick-PERF.PTC
    'the broken bone(s) grew back together'

    śıpăs, śıpśăn 'stick, fasten (itr.), adhere'

(41) *улмуççи*　***хăр-нă***　　　　　　　　　　　　　　　　(ČRS 547)
    apple.tree dry-PERF.PTC
    'the apple tree dried up'

(42) *уяр-па*　　　　*уй-хир*　　　***хăрăн-ать***　　　　　　(ČRS 548)
    dry.weather-INSTR field-meadow   dry-PRES.3SG
    'the dry weather is parching the agricultural land'

    xăr, xărăn 'dry, get dry, get parched' ~ ***xăr*** 'dry (adj.)'

(43) *сивĕ-пе*　***чĕтре***　　　　　　　　　　　　　　　　(TšSS 257–258)
    cold-INSTR shake
    'shake with cold'

(44) *йывăр*　　*машинă-сем*　*пыни-пе*　　*кĕпер*　***чĕтрен-ет***　　(ČRS 593)
    heavy   car-PL   going-INSTR bridge vibrate-PRES.3SG
    'the bridge vibrates when heavy cars go across [it]'

    čĕtre, čĕtren 'shake, tremble, shiver, rattle, vibrate'
    ~ ***čĕtre*** 'shaking, tremble, (substantive or adjective)'

3.5. One more potential meaning

The next example shows that texts are sometimes incompatible with the meaning derived from dictionaries. Here, in this context, I would like to propose a *modal* nuance for the suffix: 'be able to find'. The argument structure does not change, so the derivative suffix type is MODIFIER. This case is very similar to Mordvin *v*-derivatives,

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11.   Cf. previous ex. (18)

where *dynamic modality* 'be able to do something, can' is one of the many meanings of this ambiguous suffix (Salo 2006b: 182–183). In Mordvin, this meaning is so important that the word *vozmožnyj* or *vozmožnost′* 'possible/possibility' is always mentioned in the relatively new comprehensive Erzya and Moksha dictionaries beside the term reflexive (*vozvratnyj*), including the passive and automative.

(45) *ku   pĕt-nĕ   kĕrü   jeple   **tup-ăn-čĕ?***   (Gebr 255)
     this die-PERF.PTC   son-in-law   how   find-MOD-PAST.3SG
     'Wie hat dieser verstorbene Schwiegersohn hergefunden?'
     'How has the dead son-in-law been able to find [his way] here?'

    tupăn 'be found, be able to find'
    ← *tup* 'find'

4.   Other Turkic languages

4.1. Reflexive and passive in Tatar and Bashkir

The closely related Tatar and Bashkir languages have quite similar derivational systems and there is no clear boundary between the passive and reflexive. Verb stems ending with *-l* or *-lA* take the passive suffix *-n*: Tatar and Bashkir *al-* 'take' → *alın-* 'be taken', *bašla-* 'begin' → *bašlan-* 'be started', *alda-* 'deceive' → *aldan-* 'be deceived', Tatar *sukala-* 'plough' → *sukalan-* 'be ploughed', *ešlä-* 'make' → *ešlän-* be made'. Other verb stems take the passive suffix *-l*: Tatar *ju-* 'wash' → *juıl-* 'be washed' *sat-* 'sell' → *satıl-* 'be sold', Bashkir *bor-* 'turn' → *borol-* 'be turned', Tatar *yasa-* ~ Bashkir *yaha-* 'make' → *yasal-* ~ *yahal-* 'be made' (Poppe 1964: 69, 1968: 97–98, Berta 1998: 291).

    Reflexive verbs are formed with *-n* and may thus coincide with the passive: Tatar *tot-* 'hold' → *totın-* 'hold on', *ju-* 'wash' → *juın-* 'wash oneself', Tatar *ki-* ~ Bashkir *kĕj-* 'dress' → *kijăn-* ~ *kĕjen-* 'dress oneself', Tatar *bize-* ~ Bashkir *biδe-* 'adorn' → *bizen-* ~ *biδen-* 'adorn oneself' (Poppe 1964: 69, 1968: 97–98, Berta 1998: 291).

    It has been reported that (cooperative-)reciprocals with *-š* have displaced reflexives in Bashkir dialects in particular. This has been attested in some eastern and southern dialects. In one eastern subdialect (*govor*), Aysk, this is even more widespread, as the reflexive forms have displaced some basic forms: *aša**n*** 'eat' cf. *aša* 'id.' in the literary language, respectively *tege**n*** 'sew' cf. *tek* 'id.' (Maksjutova 1976: 59, 58, 198). In the southern subdialect of Ik-Sakmarsk, reciprocals fill basic, reflexive and passive functions (Miržanova 1979: 66, 211–212).

    It is rare to be able to study the conditions under which passives and reflexives can be used. A study on 1,950 verbs in Tatar revealed that more than half of the verbs studied (1,013) could not take an *-l* or *-n* suffix; most of them were intransitives (Zinnatullina 1965: 189). Another study says that the suffix *-n* with intransitive stems expresses intensiveness and frequency (Tumaševa 1969: 211–212).

In the Turkic languages, unambiguously reflexive verbs are mostly expressed by reflexive pronouns: e.g. Turkish *kendini öldür* 'kill oneself' is a causative of *öl-* 'die'. Sometimes reflexive verbs have special lexical meanings, e.g. the Turkish *sev-* 'love' → *sevin-* 'rejoice' has a parallel counterpart in Chuvash: *sav-* 'love' → *savăn-* 'rejoice' (Johanson 1998: 55). In Turkish, the passives can be derived from intransitive verbs (46) and the first actant of the corresponding active sentence is not necessarily expressed, which makes them close to Finnish impersonals. Obviously, this structure does not occur in Chuvash.

(46) *Burada   güzel   yasa-**n**-ıyor.*   (Johanson 1998: 55)
　　 here   nice   live-PASS-AOR.3SG
　　 'One lives well here / Life is fine here.'

4.2. Some remarks about modality in Turkic languages

In Chuvash there are also forms of possibility and impossibility. In the literary language possibility is formed with the suffix *-aj/-ej* following the stem: *kur-**aj**-r-ăm* 'I could see', sometimes with the final suffix vowel dropped. It is rarely found and the Viryal "upper" dialect does not have this feature at all. The corresponding negative form in the literary language is *kur-**aj-ma**-r-ăm* 'I could not see', which can be found in the Viryal dialect as *kur-**i-ma**-r-ăm* 'id.'. In some Anatri 'lower' subdialects, the suffix is *-ajr/-ejr*: *śit-**ejr**-ĕn* 'I can go' (Andreev 1966: 55). According to Clark (1998: 443), the suffix order is: voice + ability + negation. Ramstedt (1952: 190–191, 1957: 170) sees the origin of this modality in the incorporated verb **u-* 'können; can'.

　　In Tatar and Bashkir, possibility and impossibility can be expressed by various converb constructions (Berta 1998: 291). Dmitriev has proposed that Bashkir and other Turkic languages have four parallel conjugation or aspect paradigms: positive, negative, possible and impossible. The possible aspect is formed using the gerund *-a* and the auxiliary verb *al-* 'take', e.g. *jaza aldı* '(s)he could write' (Dmitriev 1948: 135–137).

4.3. Different suffix combinations

Recently, a substantial amount of time has been devoted to investigating combinations of verbal suffixes with each other in Turkic linguistics. The passive morpheme has two phonetically conditioned allomorphs: *-(I)n-* after vowel-final stems and laterals, and *-Il-*[12] elsewhere. The *n*-variant is identical with the medium voice, and

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12.　The capital "I" indicates that the vowel is subject to a four-way alteration, rendered orthographically by <u, ü, ı, i>, and determined by the rules of vowel harmony (Haig 2000: 219).

in some cases, it is difficult to distinguish the medium from a passive (Haig 2000: 219). In Yakut, there can even be suffixes of three voices incorporated into a single verb (Ščerbak 1981: 101). It has become apparent from large text corpora that in contemporary Turkish materials monoclausal double passives do occur:

(47) *Bu   şato-da   boğ-**ul-un**-ur.*   (Özkaragöz 1986: 77)
      This   chateau-LOC   strangle-PASS-PASS-AOR.3SG
      'One is strangled (by one) in this chateau.'

A human agent in Turkish passives can be expressed in the clause via the quasi-postposition *tarafından* 'from the side of', and a non-human agent with the ablative case, e.g. *rüzgar-dan* 'by the wind' (Haig 2000: 225). Even one word sentences are possible: *Öl-**ün**-ür* or *Öl-**ün-ül**-ür* 'It is [has] died.' There are also complex causative-passive, causative-causative, and double causative-passive forms, such as *öl-dür-ül-* 'be killed', *öl-dür-t-* 'cause to kill', *öl-dür-t-ül-* 'be caused to kill', all derived from the stem *öl-* 'die' (Johanson 1998: 56). Sometimes a sentence is ambiguous as to whether or not it is reflexive or passive:

(48) *Mehmet   yıka-**n**-dı.*   (Özkaragöz 1986: 78)
      Mehmet   wash-REFL/PASS-PAST.3SG
      'Mehmet washed himself. / Mehmet was washed.'

Once a second passive morpheme has been added, the sentence can only be read as passive: *Mehmet yıka-**n-ıl**-dı.* This type of double passive is called a passive intensifier by Özkaragöz, who separates also a second type of double passive connected to modality, one with the abilitative modal auxiliary suffix -*Ebil*:

(49) *Burada   çalış-**ıl-abil-in**-ir.*   (Özkaragöz 1986: 79)
      here   work-PASS-MOD-PASS-AOR.3SG
      'Here it can be worked.'

A diligent search has exposed cases where the suffixes are in a different order:

(50) *Bu   durum-a   tabii   ki   üz-**ül-ün-ebil**-ir.*   (Heß 2011: 263)
      such   situation-DAT   of.course   CONJ   hurt-PASS-PASS-MOD-AOR.3SG
      'One can be hurt by such words.'

Andreev has examples of Chuvash causative markers that can be added twice: *śi-**ter-ter** 'make to feed' or can be added to other voices, as *kala-**ś-tar** 'make to speak/discuss' or *vit-**ĕn-ter** 'make to cover oneself' (Andreev 1966: 54–55). The last one can also have another meaning:

(51) *vărlăx-a*   *tăpra-na*   *lajăx*   *vit**ěnter**-ně*   (ČRS 82)
    seeds-DAT/ACC   earth-DAT/ACC   well   earth.over-PERF.PTC
    'the seeds are well embedded in the soil'

Even cases with three causative suffixes have been reported: *xăp-**ar-t**[13]-**tar***[14] 'make to get up' ←←← *xăp* 'come loose'. These suffixes can be regarded as allomorphs for the sake of convenience (V. Sergeev 2002: 234). A reflexive suffix can be added after a frequentative suffix *-kala/-kele*: *śap-**kala-n*** 'push, poke several times; rush; gesticulate; ramble' ←← *śap* 'hit' or *vět-**kele-n*** 'hurry; try' ←← *vět* 'scorch, burn' (V. Sergeev 2002: 235–236).

    Sometimes verbs having a reciprocal *-š* or other suffixes can be synonymous with *-l* or *-n* verbs as in (52) and (53), e.g. *kutănla**n*** and *kutănla**š*** and 'be stubborn, recalcitrate, be capricious' (TšSS 85), *ača kutănlašatʹ* 'the child is capricious', *laša kutănlašatʹ* 'the horse is agitated' (ČRS: 198). It is also possible to say *tumtir tipše**rn**ě* or *tipše**n**čě* 'the cloths got dry', even though the stem *tip* has the meaning 'get dry' (ČRS: 483)

(52) *санталăк*   *кашт*   ***майлан****-чě*   (ČRS 223)
    weather   a.little   get.better-PAST.3SG
    'the weather cleared up a little'

(53) *санталăк*   ***майлаш****-са*   *кай-рě*   (ČRS 223)
    weather   get.better-CRD.GER1   go-PAST.3SG
    'the weather cleared up'

    majlan, majlaš 'turn out well, to be fixed, calm down'
    ← *majla* 'fix, repair'

The sentence in (54) shows a combined suffix with a more specified meaning than its semantically related verbs from the same adjectival stem.

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13.   Almost no attention has been paid to causative suffix *-at/-et/-t* due to its rarity (V. Sergeev 2002: 234).

14.   It sometimes has the allomorph *-ttar/-tter*, but not in this case.

(54) *Sivĕ,   xajar   xĕl   irt-er   //*   (ChM 212, 261)
      cold   bad   winter pass-PRET.3SG

   *kaj-at   jĕr-se,   **xurlan-sa**;*
   go-PRES.3SG   weep-CRD.GER1   grieve-CRD.GER1

   '[The] cold unpleasant winter passes //
   goes a-weeping, grieving[15];'

   xurlan 'mourn, grieve'
   ← *xurla* 'defame, abuse, tell tales'
   cf. *xural* 'turn black, blacken; darken; get dirty'
   xuran 'be seen as black, dark'
   ← *xura* 'black; dark, gloomy: dirty, dirt; bitter, acrid'

5.   Conclusions

Whereas the Chuvash passive and reflexive suffixes are systematically used for form-
ing lexemes, in many other languages passivization and reflexivization are purely
syntactic processes. The Chuvash state of affairs is not relevant to the grammar – lexi-
con dichotomy, because the causative and passive morphemes are both used within
the grammar and within the lexicon. They can make nouns into verbs, especially the
reflexive suffix, which has a wider range of use, but verbs with the passive suffix can
also have a reflexive reading. The picture is not clear, however, because some stems
accept only *-n* suffixes and do not take *-l* suffixes at all. In addition, reflexive suffixes
are the same as the suffixes deriving nouns into verbs. Rezjukov (1959: 136) tries
to avoid the problem by combining both suffixes under the passive-reflexive voice.
Dictionaries have provided simple solutions throughout the decades: Egorov (1954:
317–318) lists derivational suffixes, the *-l* and *-n* suffixes are divided into two catego-
ries, deverbal and denominal, and the *-n* is also considered to have a passive meaning
(ČRS 662). The newest grammar does not say anything about the passive, but states
that the suffixes of the reflexive and reciprocal voices are derivational, while suffixes
of the causative voice are multifunctional and can be added very widely to verbal
stems (V. Sergeev 2002: 237).

   In Turkish, the difference between voices is sometimes clear: *ög-il* 'be praised'
cf. *ög-in* 'boast' (Gusev 1986: 6–7). Serebrennikov suggests, that in the Turkic lan-
guages, there are two passive suffixes *-l-* and *-n-*, which have developed indepen-
dently, although in some languages these have conflated. He thinks that the passive
meaning has evolved from the reflexive meaning (Serebrennikov 1976: 33).

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15.   The original translation by Krueger is 'growing black', but this might be incorrect, as the diction-
aries do not include the meaning 'grow black, blacken', the usual word for 'grow black' is *xural* (ČRS
565).

It seems to me that in the turkological work published in the Soviet Union or Russia the term *reflexive* is often used loosely and sometimes might even be close to the term intransitive. Usually, the term *passive* is defined in relation to the active. It has been most disadvantageous to Soviet turkology that there tends to only be a superficial knowledge of the Finno-Ugrian languages, which are also agglutinative in nature. Anyone who has studied Finnish grammar in depth can clearly see that the passive voice formed with the *-t-* affix in Finnish is obviously something other than a derivational suffix. Both the reflexive and passive categories are clearly derivational in the Turkic languages, as many of the examples have shown. At least from the morphological point of view there is no reason to maintain a separate voice category. Ultimately, the language decides what category to place its verbs in: in Russian *vernut'sja* is a reflexive verb, but the English *return* (itr.) and the Finnish *palata* are not. In Russia, not much in-depth research on the derivation of verbs has been carried out, due to the fact that lists of verbs cannot reveal much at all; context is what greatly influences results. Some researches consider this situation unpleasant and propose more studies on verbal categories in their native languages, such as Zinnatullina (1965: 185), who considered the five voices of Tatar dating back to 1895 to be insufficient.

So far, the Chuvash meanings presented are very similar to the meanings of *-Alt* verbs in Mari. Verbs in Mari using the *am*-forms have a passive, automative, reflexive or zero-meaning, too. The Mari *Alt*-verbs seem to be indisputedly deverbal (as are the Mordvin *v*-verbs), so their derivational suffixes are TRANSFORMERS and MODIFIERS, while in Chuvash, derivational suffixes from all three categories are used. There are, however, other meanings[16] for these *Alt*-suffix verbs, especially if they take *em*-forms (cf. Salo 2006a: 337). Although the Pavlik Morozov corpus has not turned up any new meanings, the result might be different if more extensive corpora of modern languages were to be examined. The Mordvin *v*-verbs have more meanings and occur in texts more frequently than the corresponding Chuvash and Mari verbs do.

Except for in the case of zero meaning, *-l* and *-n* suffixes are used to reduce the verbs' valences. This is particularly valid with deverbal derivatives. In very old cases of nomen-verbum, the few stem verbs are intransitive and seem to be more common than their derivatives, which have more restricted uses. As is often the case with nominal stems, the derived intransitives and transitives seem to be equal. On the following pages in Appendix, the term *intransitive* refers to the reflexive, automative and passive, with context often being the determining factor. For the sake of completeness, the causatives are also represented, as they are needed to describe the alternation between the transitive and intransitive meanings.

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16.   The frequentative meaning of *am*-verbs could also be referred to the *l*-frequentative on the Turkic side.

Appendix

Chuvash derivational patterns for verbs are mainly based on materials gathered from ČRS and TšSS. The case inventory of Chuvash makes finding an object rather difficult due to the fact that the object is marked with the dative/accusative case, which is also used to mark local utterances. So it is more than likely that not every intransitive or transitive meaning of the treated verbs has been included.
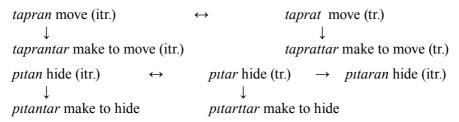
Deverbal patterns

Transitive stems

tr.		itr.		tr.
taj bend	→	*tajăl* bend	→	*tajăltar* make to bend
	→	*tajăn* bend	→	*tajăntar* make to bend
kas cut	→	*kasăl* be cut, cut oneself	→	*kasăltar* make to be cut, cut oneself
	→	*kasăn* be cut, cut oneself		
vit cover	→	*vitĕn* be covered	→	*vitĕnter* make to cover, make to cover oneself
iš break	→	*išel* be broken	→	*išelter* make to break
	→			*išter* make to break
śıx tie, bind	→	*śıxăn* be bound up	→	*śıxăntar* connect
	→	*śıxlan* get involved	→	*śıxlantar* join
śır write	→	*śırăn* be written	→	*śırăntar* make to be written
kur see	→	*kurăn* be seen		
ilt hear	→	*iltĕn* be heard	→	*iltĕnter* make to be heard
	→			*iltter* make to hear
salt open, take off	→	*saltăn* undress	→	*saltăntar* make to undress
	→			*salttar* make to open, take off
tavăr return	→	*tav[ă]răn* return		
	→			*tavărttar* make to return
muxta praise	→	*muxtan* boast	→	*muxtantar* make to boast
	→			*muxtattar* make to praise
śĕkle raise, lift up	→	*śĕklen* rise, get up	→	*śĕklenter* make to rise, get up
	→			*śĕkletter* make to raise, lift up

Intransitive stem

xĕr warm up → *xĕrel* redden
          → *xĕrĕn* warm up
          → *xĕret* paint red (tr.) → *xĕretter* make to paint red
          → *xĕrt* warm (tr.)   → *xĕrtĕn* warm to up (itr.) →
                                  xĕrtĕnter make to warm up

No clear precedence

tapran move (itr.)	↔	*taprat* move (tr.)
↓		↓
taprantar make to move (itr.)		*taprattar* make to move (tr.)

pıtan hide (itr.)	↔	*pıtar* hide (tr.)	→	*pıtaran* hide (itr.)
↓		↓		
pıtantar make to hide		*pıtarttar* make to hide		

Nomen-verbum patterns

itr. + noun		**itr.**		**tr.**
tip dry	→	*tipĕn* get dry	→	*tipĕnter* make to dry
	→	*tipĕt* dry (tr.)	→	*tipĕtter* make to dry
	→ →	*tipšer* get dry		
	→ →	*tipšen* get dry		
xăr dry	→	*xărăn* dry up	→	*xărăntar* make to dry up

Denominal patterns

noun		**itr.**		**tr.**
tum dress → **tumla*?	→	*tumlan* dress	→	*tumlantar* dress
śilĕ anger	→	*śillen* get angry	→	*śillenter* make angry
üsĕr drunken	→	*üsĕrĕl* get drunken	→	*üsĕrĕlter* make to get drunken
jĕpe wet	→	*jĕpen* get wet		
	→	*jĕpet* wet (tr.)	→	*jĕpetter* make wet

noun	**tr.**		**itr.**
paj part	→ *pajla* divide into parts	→	*pajlan* be divided into parts
	pajlattar make divide into parts		
vak little	→ *vakla* make smaller	→	*vaklan* get smaller
		→	*vaklattar* make to make smaller (tr.)

noun   **tr.**   **tr.**
tăxa? buckle   →   *tăxan* dress   →   *tăxantar* dress somebody →
                                                                                      tăxantart make dress comebody

noun   **several derivatives**
pĕkĕ harness bow →   *pĕkĕn* bend (itr.)
                          → → *pĕkĕrĕl* bend (itr.) →   *pĕkĕrĕlter* bend (tr.)
                          → → *pĕkĕren* bend (itr.)
                          → → *pĕkĕrt* bend (tr.)

tasa clean   →   *tasal* become clean (itr.)
                          →   *tasalan* become clean[er] (itr.)
                          →   *tasat* clean (tr.)   →   *tasattar* make clean (tr.)

puś head   →   *puśăn* begin (itr.)   →   *puśăntar* make to begin (itr)
                          →   *puśar* start
                          →   *puśla* begin (tr.)   →   *puślattar* make to begin (tr.)
                                      ↓
                                puślan begin (tr.)

Glosses and abbreviations

ABL	ablative	MOD	modal(ity)
adj.	adjective	NEG	negation
AOR	aorist	NEG.IMP.PART	negative impera-
CARIT	caritive		tive particle
CONJ	conjunction	NEG.PTC	negative participle
CRD.GER1	first coordinative	p.	person
	gerund -*sa*, -*se*	PART	particle
CRD.GER2	second coordinative	PAST	past
	gerund -*san*, -*sen*,	PERF.PTC	perfect participle
	-*sassăn*, -*sessĕn*	PL	plural
DAT/ACC	dative/accusative	POP	postposition
EMPH.PART	emphatic particle	PRES	present
Finn.	Finnish	PRES.GER	present gerund
GEN	genitive	PRET	preterite
id.	idem	PURP	purposive
IMP	imperative	PX	possessive suffix
INF	infinitive	REF	reflexive
INSTR	instrumental	Russ.	Russian
itr.	intransitive	SG	singular
LAT	lative	tr.	transitive
LOC	locative		

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