On Causative and Transitive Constructions in Aleut, Eskimo and Aynu

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This paper is a preliminary study whose purposes are to examine the sentences derived from the affixation of causative and other transitivizing elements and to propose a general framework of grammatical relations. In the framework, which is based on previous studies and new data from Aleut, Eskimo and Aynu, the causative construction can be explained as a part of Agent-addition, while many of the other transitive constructions are explained as Non-Agent-addition (the addition of 'patient', 'experiencer' and other object noun phrases), at least in the grammars of Aleut, Eskimo and Aynu languages.

I. Causative Constructions

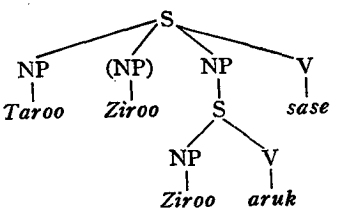
Recent studies have paid more and more attention to the grammatical relations, especially in the causative coustructions, from typological and cross-linguistical viewpoints, which lead to the universal grammar. As a result of those studies, it is made clear that the causative constructions should be studied with consideration of the interactions of morphology, syntax and semantics. Therefore, the study of causative constructions would play important roles in the study of inner structure of the particular language and the cross-linguistical study of different types of languages.

In this paper, besides the causative construction, we will refer to another important aspect of grammatical relations. The three languages involved here have two distinct sets of affixes: causative affixes and other transitivizing affixes distinguished from the causative ones. In these three languages, among others, the study of the relations between the causative and other transitive constructions should be considered to be a

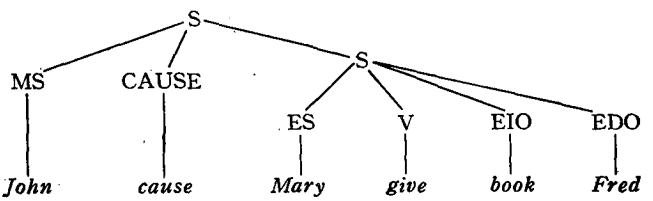
crucial part of the grammar.

The relations between the two constructions have not been treated enough in the recent studies to which the present writer had access. As for the causative constructions, however, many important achievements are available now. Recently, some important syntactical studies on the causative constructions were published (Shibatani 1976, Comrie 1976 and 1981). We take up some essential points here in order that our argumentation will be based on their results and develop them into the more general framework of grammatical relations.

The basic form of the syntactic structure of the causative constructions is following:



Taroo ga Ziroo o/ni aruk-ase-ta.
'Taroo made/had Jiro walk.'
(Shibatani 1976: 242)



(MS: matrix subject NP, ES: embedded subject NP, EDO: embedded direct object NP, EIO: embedded indirect object NP. Comrie 1976: 262)

Shibatani, concerning Japanese causative constructions, proposed the syntactic processes as follows (Shibatani 1976: 243):

(a) Equi-NP deletion, which deletes the embedded subject NP, applied only for *o*-causative (coercive causation).

(b) Verb raising.

(c) Case-marking rules, which assign *ga* to the surface subject and

o to the second noun phrase in the matrix sentence or *ni* to the embedded subject NP raised, following verb raising, to the matrix sentence.

Comrie, whose concern is to give a cross-linguistic framework, proposed the following syntactic processes (Comrie 1976: 262–263):

(a) Fusion, if any, of the causative element and the embedded verb.

(b) Demotion of the embedded subject to the right from the left position along the accessibility hierarchy: subject—Direct object—Indirect—object—Other oblique constituent.[1)]

From a cross-linguistical viewpoint, the ways of causative expressions differ from language to langnage. Shibatani 1976 and Comrie 1981 classify them into three types:

Type 1. Analytic causatives, e.g., English causatives; *cause, make, have, let.*

Type 2. Morphological (Affixial) causatives, e.g., Japanese causative (*-sase-*), Turkish causatives(*-dür, -t*).

Type 3. Lexical causatives, e.g., English verb *kill* (non-causative *die*) and Japanese verb *koros-u* 'kill' (non-causative *sin-u* 'die').

Moreover, they classify the causatives from the semantical viewpoint, in particular based on the presence of causee's volition. For example, English verbs, *cause* and *make*, are true causatives, while the verb *let* is a permissive causative (Comrie 1981: 164). Japanese *o*-causative is a coercive causative, while *ni*-causative a non-coercive (Shibatani 1976: 251).

1) Considering the ergative type of languages, Johnson 1974 proposed the modified *hierarchy: Primary*≥Secondary≥IO≥Oblique NP. This seems still lacking so that the present writer proposed the two-way hierarchy for the Aleut language (Oshima 1981b):

1. Nominal hierarchy: $\left\{\begin{matrix}\text{Subject}\\ \text{Patient}\end{matrix}\right\}$≥Agent≥(IO)≥Oblique NP

2. Case hierarchy: Absolute≥Relative≥Locative

For the fully accusative type of languages the nominal hierarchy would be $\left\{\begin{matrix}\text{Subject}\\ \text{Agent}\end{matrix}\right\}$≥patient≥IO Oblique NP. The case hierarchy varies from language to language, although the order of the primary case—secondary case is still relevant in Johnson's sense. For the accusative language, for example, the case hierarchy would be Nominative≥Accusative≥Dative.

II. Causative vs. other Transitive Constructions

Much of Shibatani's and Comrie's discussion is made on the causative constructions and only a little is concerned with the relation between the causative and other transitive constructions. Comrie 1981 suggests a more general framework of grammatical relations including causative and other constructions. In his framework, a verb has *valency* and a causative verb increases in valency (how many arguments a verb co-occurs with in a sentence) and an anticausative (like passive) decreases in valency (Comrie 1981 : 167ff).

As for "increase in valency" there are other constructions, besides the causative constructions, which play important roles in the grammar of polisynthetic type of languages, such as Aleut, Eskimo and Aynu, which we are going to discuss here. In Aleut,[2] for example, there are two sets of suffixes, and accordingly two different constructions. Compare the following sentences :

(1) *Tayaĝux̂* *saaglax̂* *qanguchx̂ikux̂*
man dog come in CAUSE Modal 3s[3]
'The man let the dog in.'

(2) *Tayaĝux̂* *saaglax̂* *qanguusakux̂*
man dog come in TRANS Modal 3s
'The man came in with the dog/took the dog in.'

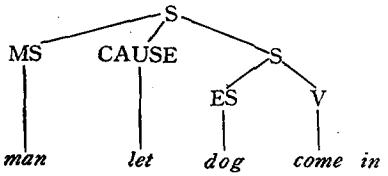
In the surface structure the two sentences have the same structure, but morphologically and semantically they are different. The former sentence has a causative verb *qanguchx̂i-* (made up of an embedded verb *qangu-* and a causative suffix *-chx̂i-*), on the other hand, the latter sentence has a transitive verb *qanguusa-* (made up of an embedded verb *qangu-* and a transitiving suffiix *-usa-*).[4]

2) The transcription of the Aleut sentences is based on the orthography. The symbol '^' represents uvular sounds, and the letter *q* shows the uvular stop. Other letters and the combinations of letters are almost similar with English in an alphabetical use.

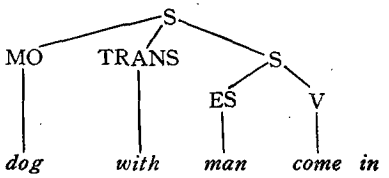
3) The symbol *3s* means 'the third singular surface subject.'

4) The term 'transitivizing' is used here to refer to the process which changes a verbal base into a mono-transitive or bi-transitive base.

The underlying structures of these two types of "increase-in-valency" can be written in the following tree diagrams:



'The man let the dog in.'



'The man took the dog in.'

In this more general framework of grammatical relations, the transitive constructions can be described distinctly from the causative constructions and the relations between the two constructions can be rather definitely discussed in other type of languages as is the case in Aleut, which has morphologically distinct sets of affixes relevant to the above-mentioned tree diagrams.

In the following chapters we will examine the causative and other transitive constructions with relevant examples from the three languages: Aleut, Eskimo and Aynu, in that order. The examples from Aleut introduce the idea of the opposition between causative and other transitive constructions. In the two chapters following, the examples from Eskimo and Aynu will serve to support the idea. In the last chapter we will summarize the two constructions and compare them with reference to the other ways of transitivizing expressions.

III. Aleut Language

We make clear the terminology which will be used in discussing the two constructions.

He caused John to die.	Causative sentence
John died.	Non-causative
The man took the dog in.	Mono-transitive
The man came in.	Non-transitive (intransitive)
The man caught the fish with his hands.	Bi-transitive

In Aleut, there are such causative suffixes as *-t-* 'make', *-chx̂i-* 'let', *-ya-* 'try to make' and transitivizing suffixes, such as *-usa-* 'with, about',

-uta- 'as, like'.

We will cite several Aleut sentences in order to contrast the two kinds of suffixes. They are presented below with the marking of cases (Abs. stands for the absolute case, Rel. for the relative case and Loc. for the locative case).

(1) *Tayaĝuχ saaglaχ qangu-chχi-ku-χ* (CAUSATIVE)
man Abs. dog Abs. come in CAUSE Modal 3s[5]
'The man let the dog in.'

(2) *Tayaĝuχ saaglaχ qangu-usa-ku-χ* (MONO-TRANSITIVE)
man Abs. dog Abs. come in TRANS Modal 3s
'The man came in with the dog.'

(3) *Saaglaχ qangukuχ* (NON-CAUSATIVE)
dog Abs. come in Modal 3s
'The dog came in.'

(4) *Tayaĝuχ qangukuχ* (NON-TRANSITIVE)
man Abs. come in Modal 3s
'The man came in.'

The sentence (1) expresses the situation that the man found the dog was trying to go in the house and he gave the permission to the dog but he didn't go in with the dog and stayed out. On the contrary, the sentence (2) expresses that the man intended to go in the house and found the dog outside the house and came in with the dog, holding or walking with the dog.

From the above situations it follows that the causative sentence (1) is related to the non-causative sentence (3) and the transitive sentence (2) to the non-transitive sentence (4). The structural descriptions of the causative and transitive sentences would be as follows with the notation of semantico-syntactical primitives representing the core grammatical relations (*A* for agent, *P* for patient and *S* for the intransitive subject based on Comrie

5) In the sentence (2), the embedded S has the absolute case. But the embedded S can take the relative case after the application of other syntactic rules. This kind of alternative case of Abs. and Rel. is "relative position." (See Oshima 1981a and 1981b in detail).

1978).

(1)' *tayaĝu- -chx̂i- (saagla- qangu-)*
A CAUSE S V

(2)' *saagla- -usa- (tayaĝu- qangu-)*
P TRANS S V

(see also the tree diagram on p. 205 in this paper)

The crucial point to distinguish the two constructions is that the causative suffix adds an agent as the new argument in the matrix sentence, while the transitivizing suffix adds a patient as the new argument in the matrix sentence. In other words, the causative element is an Agent-adder and the transitivizing element is a Patient-adder.

The above-cited examples are all concerned with the construction which has only one argument in the embedded sentence. In Aleut, the same suffixes involved can also appear with the two-argument verb of the embedded sentence.

(5) *Tayaĝux̂ lakaayam ngaan qax̂ su-chx̂i-ku-x̂*
man Abs. boy Loc. fish Abs. take
CAUSE Modal 3s[6]
'The man let the boy catch the fish.' (CAUSATIVE)

(6) *Lakaayax̂ qax̂ sukux̂*
boy Abs. fish Abs. take Modal 3s
'The boy caught the fish.' (NON-CAUSATIVE, TRANSITIVE)

(7) *Lakaayax̂ qigda-an qam ngaan su-usa-ku-x̂*
boy Abs. fish hook Abs. fish Loc. take TRANS
Modal 3s
'The boy caught the fish with his own fish hook.'
(BI-TRANSITIVE)

The structural descriptions of the above sentences are as follows:

(5)' *tayaĝu- -chx̂i- (lakaaya- qa- su-)*
A CAUSE A P V

6) In Aleut, the two adverbial cases (locative and ablative) are expressed with the postpositionals like *ngaan*, which are originally derived from the positionals. At the same time, the head noun takes the relative case as in *lakaayam* (cf. *lakaayax̂*, absolute case).

(7)′ *qigda- -usa- (lakaaya- qa- su-)*
P TRANS A P V

These two constructions (5) and (7) are different in the same way as in the examples (1) and (2). The causative element *-chx̂i-* adds an agent to the embedded sentence, while the transitivizing element *-usa-* adds a patient to the embedded sentence.

A more important point to notice here is the case which is assigned to each argument. As Comrie (1976 : 263ff) pointed out, one of the relevant arguments is demoted along the Accessibility Hierarchy when there may happen to be the doubling at the same position of the hierarchy (cf. p. 203 in this paper and footnote 1). As is clear from the structural description of (5) and (7), this is the case. He also claims the argument to be demoted is, generally as a universal tendency, the embedded subject in the causative constructions. The same is true for the Aleut causative sentences, that is, the demoted argument in (5) is the embedded subject *lakaaya-* 'boy' (which is marked with Agent here), to which the locative case is assigned (Loc. in Aleut corresponds to the oblique NP position in Comrie's hierarchy).

Although Comrie said nothing of the demotion in the transitive constructions we are discussing here, the same kind of demotion, we find, works for the bi-transitive constructions, such as (7). It it the embedded object (marked with Patient here) not the embedded subject that is demoted along the hierarchy, so that we can explain how the embedded patient *qa-* takes the locative case in (7).

Now we can expand Comrie's observation about the demotion in the causative constructions into that in the transitive constructions. As a universal tendency, we can claim as follows :

1. It is the embedded subject (or Agent) that is demoted in the causative (Agent-addition) constructions.

2. It is the embedded object (or non-Agent like Patient) that is demoted in the transitive (non-Agent-addition like Patient-addition) constructions.

IV. Eskimo Language (Yup'ik dialect)[7]

Acoording to Miyaoka (1981 and forthcoming), there are two sets of suffixes which are relevant to "increase-in-valency." The one set of suffixes includes the causatives *-cic-/-vkar-* 'make, let, have' and other agent-adders *-sqe-* 'want', *-yuke-* 'think'. The other set includes *-gi-* 'have an adverse experience' and *-uc-* 'have a beneficial experience'. The latter set is semantically called "Experience-adder" by Miyaoka, which is a little different from the Aleut "Patient-adder" in a syntactic process, about which we will mention later in this chapter. The former Agent-adder suffixes, it is noted, include 'want', 'say', 'think' as well as the causatives. The English causative, similar in this point, has the same syntactic structure as the verb *want*.

In order to illustrate the Agent-addition constructions, the examples from the Yup'ik language include only one sentence with the causative *-cic-* and others with the suffix *-sqe-*, only to show the syntactic relations from the limitation of examples. The cases are the absolute, relative, ablative and allative.

(8) *Arnam* *mikelnguq* *ane-sqa-a* (Agent-addition)
woman Rel. child Abs. go out want Modal 3s-s[8]
'The woman wants the child to go out.'

(9) *Mikelnguq* *an'uq*
child Abs. go out Modal 3s
'The child is going out.'

The Agent-addition (causative *-cic-*) can appear with a two-argument verb as follows:

7) The transcription of Yup'ik language is based on the orthography. The letter *r* represents the voiced uvular fricative, *g* the voiced velar fricative, and *l* the lateral, and the doubling of these letters shows corresponding voiceless sounds. The letter *q* is the same as *q* in Aleut, the uvular stop. The letter *e* shows the sound [ə]. The apostrophe shows the long consonant.

8) The symbol *3s-s* means 'the third singular surface subject and the third singular surface object.'

(10) *Angutem* *pisteminun* *amiik* *kitug-cite-llru-a*
man Rel. servant All. door Abs. mend CAUSE past Modal 3s-s
'The man made the servant mend the door.'

(11) *pistem* *amiik* *kitugtaa*
servant Rel. door Abs. mend Modal 3s-s
'The servant is mending the door.'

In the Yup'ik language an Agent-adder occurs with a one-argument verb as in (8) and also with a two-argument verb as in (10). The demotion of the Agent also takes place along the similar case hierarchy as in Aleut and other languages showed in Comrie 1976.[9] But the demoted argument in the causative constructions takes the allative case (*pisteminun*) instead of the locative case in Aleut.

Now we take up the examples of "Experiencer-addition", which is contrasted with "Agent-addition" as seen in Aleut examples.

(12) *angun* *tuqu-i-gaa* *arnam*
man Abs. die TRANS Modal 3s-s woman Rel.
'The man died on the woman.'

(13) *angun* *tuquuq*
man Abs. die Modal 3s
'The man died.'

(14) *angun* *ner-i-a* *arnam* *neqmek*
man Abs. eat TRANS Modal 3s-s woman Rel. fish Abl.
'The woman eats the fish (with adverse effect) on the man.'

(15) *arnam* *neraa* *neqa*
woman Rel. eat Modal 3s-s fish Abs.
'The woman is eating the fish.'

The structure of the sentence (14) is as follows:

9) Miyaoka 1981 proposed the nominal hierarchy: Patient≥Experiencer≥Agent, and the case-marking rule: Abs. is first assigned and the Rel. is, second, if any, along the case-hierarchy. His hierarchy can be read as follows:
Nominal Hierarchy: $\left\{\begin{matrix}P\\S\end{matrix}\right\}$≥E≥A
Case Hierarchy: Abs.≥Rel.≥Adverbial cases (ablative, allative)
By demotion, the absolute case takes the ablative case, and the argument with the relative takes the allative case.

(14)' *angute-* *-gi-* (*arnaq-* *neqe-* *nere-*)
E TRANS A P V

The newly added argument (Experiencer) triggers the demotion of the patient argument as well as in Aleut. The demoted patient argument takes the ablative case, in contrast with the allative case which the demoted Agent takes in the demotion of the causative constructions. Although the case which the demoted argument takes is different between Eskimo and Aleut, the same kind of demotion applies in the Patient-/Experiencer-addition.

We also find some kind of Transitive Blockage in Eskimo, which is corresponding to the Causative Blockage which Comrie 1976 pointed. Comparing the Aleut sentence (2) and the Eskimo sentence (12), the former embedded subject is demoted to the relative position along the case hierarchy affected by the addition of the new Patient argument (see footnote 5). But the embedded subject in Eskimo is not affected by the addition of the new argument (Experiencer).

To summarize, in Aleut the demotion triggered by the Patient argument equally affects the embedded *P* and *S*, while the demotion in Eskimo triggered by the Experiencer-addition affects the embedded *P* alone.

If we calll the Patient-/Experiencer-addition the "Non-Agent-addition", there are two distinct sets of suffixes, Agent-adder and Non-Agent-adder in Aleut and Eskimo. The causatives are included in the Agent-adders and the demotion operates differently between the Agent-addition and the Non-Agent-addition as stated in p. 208.

V. Aynu Language

The Aynu language has two affixations, prefixes and suffixes. These affixes include the affixes that change the grammatical relations, such as causatives and transitivizing elements. The suffixes are *-re*, *-te*, *-ke*, *-ka*, *-V* (*-V* means the vowels: *a*, *i*, *u*, *e*, *o*). The prefixes are *e-* 'about', *o-* 'at', *ko-* 'to' (their semantic values vary word by word).

Tamura 1975 classifies the Aynu affixes based on the syntactic functions as follows:

(a) Prefixes: *e-*, *o-*, *ko-*; 1. intransitive base is changed into transitive, 2. transitive base is changed into bi-transitive.

(b) Suffixes: *-re*, *-te*, *-e*; causatives.[10]

(c) Suffixes: *-re*, *-te*, *-ke*, *-ka*, *-V*; 1. intransitive base is changed into transitive, 2. transitive base is changed into bi-transitive.

Asai 1969 mentioned that both sets of affixes function as Object-adders, and that as for *-re* and *-te*,[11] there may exist no clear difference between their causative and transitivizing functions.

The useful distinction between prefixes and suffixes can be reached from our framework of grammatical relations. That is, the suffixes are Agent-adders and the prefixes Non-Agent-adders (syntactically, DO or IO is added in the derived sentence). The causative elements are part of the Agent-adders in our framework and the difference between the causatives and the other Agent-adders is, basically, explained based on the semantic components of the embedded subject (inherent presence of volition *etc.*)

Taking up some examples from the Aynu literature (Chiri 1921 written by a native story teller from Horobetsu), we will see the grammatical relations of the Aynu sentences. The symbol '=' shows a post-/preverb pronominal boundary and the symbol '-' shows a morpheme boundary.

(16) *Metoteyami* *ci=ray-ke* (CAUSATIVE)
jay I die CAUSE (YC-12)[12]
'I killed the jay.'

(17) *Sine terkepi* *ray* (NON-CAUSATIVE)
one frog die (YC–9)
'One frog died.'

(18) *Konkani pon ay* *sicorpok* *ci=kus-te* (CAUSATIVE)
golden small arrow below myself I go by CAUSE (YC–1)
'I let the small golden arrow pass below me.'

10) *-ke*, *-ka* are also causatives, e.g. *etuk* 'be projected out' vs. *etuk-ka* 'make something projected out', *ahun* 'go in' vs. *ahun-ke* 'let someone go in.'

11) *-e* is a positional allomorph of *-re* after the phoneme *r* as pointed by Asai (1969: 782).

12) YC-12 means the story number of Yukie Chiri's book.

(19) *Yupinekur* *ku oro* *kus* (NON-CAUSATIVE)
elder brother bow at go by (YC–4)
'The elder brother passed at the bow.'

The cases for subjects and objects in the Aynu language are zero-form so that such syntactic processes as demotions as seen in Aleut and Eskimo are not relevant here.[13] Semantically, the first person *ci=* is the causer and the bird *metoteyami* is the causee in (16) so that the personal pronoun stands at the preposition of the verb *rayke* (cf. the transitive sentence *aynu oruspe ci=nu* 'I hear the people's news.' (YC–2)). Comparing the paired sentences, (16)—(17) and (18)—(19), we can say that the causative sentences are Agent-addition in the sense that the suffix involved adds the new agent argument besides the embedded subject.

Prefixes are thought to be Non-Agent-adders as illustrated in the following sentences:

(20) *Ne wa an pe* *ci=e-mina* (MONO-TRANSITIVE)
that thing I TRANSE laugh (YC–4)
'I laughed at that.'

(21) *Mina=as* (NON-TRANSITIVE)
laugh I (YC–4)
'I laughed.'

(22) *Pon nitnekamuy iwa kurkasi* *ci=e-kik* (BI-TRANSITIVE)
little devil rock on I TRANSE hit (YC–11)
'I threw the little devil onto the rock.'

(23) *Sine* *rupnekur* *uray* *kik* (MONO-TRANSITIVE)
one man fish trap hit (YC–10)
'One man was hammering the fish trap.'

To compare the sentences (20) with (21) and (22) with (23) respectively, the direct object is added to the embedded sentence in (20) and in the

13) The word order seems to serve as the differential function between the Agent-adder and the Non-Agent-adder, though only limited data is available in Chiri's literature:
Agent-adder: MS–ES–EO–Verb-CAUSE
Non-Agent-adder: ES–EO–MO–TRANS-Verb

same way, the new argument, possibly indirect object, is added to the embedded sentence in (22) (see footnote 13). The newly added argument is the object, not the Agent NP. In (20) it is held that the actor of the action 'laughing' is still the first singular person *ci=* and in (22) the actor of the action 'hitting' is the first singular person *ci=* and the rock *iwa* is the goal of the action of the little devil *pon nitnekamuy* caused by the first singular person.

To summarize, we can state, here as well, that the Aynu language has the device to distinguish between the Agent-adder and the Non-Agent-adder as is the case in Aleut and Eskimo. In addition the device itself in the Aynu language depends on morphological distinct class, suffixes and prefixes.

VI. Conclusion

We have discussed the two distinct sets of affixes and their functions in the three languages, considering the relations between the causative and other transitive constructions. Although each language has its own peculiarities in such a syntactic process as case-marking or semantical functions, we can safely say that there are two different grammatical devices which are called Agent-addition and Non-Agent-addition.[14] The surface structures derived from these NP-additions happen to be the same, but in the underlying structure the two constructions can be explained differently based on the different functions of the affixes added to the embedded verb base (see the tree diagrams in p. 205).

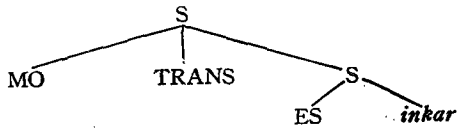
The causative construction, it is also made clear, is a part of the Agent-addition. The causative construction is distinguished from other Agent-addition depending on whether the embedded subject NP inherently has volition. If the embedded subject inherently has volition in an Agent-addition, whether the volition is controlled by the causer or not, the construction is identified as a causative construction.

14) The term "Non-Agent-addition" is used here as the addition of non-agent NP including, semantically, patient argument of Aleut, experiencer of Yup'ik, DO/IO of Aynu.

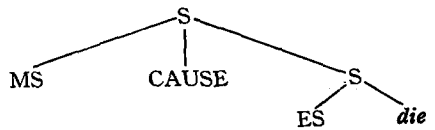
Now we are in the position to ask if the Non-Agent-addition has different ways of expressions besides the affixial process mentioned so far.

In Aynu, there is another way for Non-Agent-addition besides the affixation, that is, the Lexical Transitive, contrasted to the Lexical Causative. The verb *nukar* 'have a look at' is a lexical transitive (intransitive base *inkar* 'have a look').[15]

The structure of the sentence with *nukar* can be illustrated as follows:



On the other hand, the lexical causative construction which includes, for example, the English verb *kill* can be shown as follows:



In both cases, the relevant syntactic process is lexicalization. The combination of *inkar* and *TRANS* is lexically replaced by *nukar* in the former. The combination of *die* and *CAUSE* is lexically replaced by *kill* in the latter.

The expression of *kill* and other causatives in Aynu is rendered only by morphological process not by lexical replacement. For example, the causative verb *rayke* 'kill' consists of *ray* and *CAUSE*.

The analytic way of expressions of Non-Agent-addition, corresponding to the analytic causative, is not yet attested in the three languages treated here.

15) Other oppositions of intransitive and transitive verbs are *itak* 'say' vs. *ye* 'tell', *sike* 'carry' vs. *se* 'carry something.'

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