

CAUSATIVES AND TRANSITIVITY

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The “second causative”: A typological sketch

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For V.P. Nedjalkov, the preeminent investigator of causatives, who caused me — volitionally and non-volitionally, directly and indirectly, “factitively” and “assistively” (for definitions, see Nedjalkov, Sil’nickij 1969) — to engross myself in the subject, from the grateful causee.

1. Introduction

This paper deals with a special class of causative verbs generally neglected in typological studies. To begin, a preliminary definition of the category under study is needed.

We use the term “second causative” (C_2)¹ to refer to a phenomenon in certain languages whereby the following conditions are met:

(i) there exist at least two different types of verbal derivation corresponding to the classical treatment of causatives (as determined, for instance, in Xolodovič 1969); according to this conception, permissive and assistive verbs are also treated as causatives;

(ii) there exist verbs which can be causativized at least in two different ways.

The verb belonging to the causative type k_j will be referred to as second causative if there exists at least one more (alternative) causative formation k_i , and the k_j -verbs are morphologically and/or semantically more complex than the k_i -verbs.²

The following formations can serve as illustrations of the second causative: Turkish double causatives in *-t-tIr-* or *-DIr-t*, Quechua double causatives in *-chi-chi-* as well as assistives in *-:shi-*, and others (given below). There may exist more than one C_2 (cf. double and triple causatives in Turkic languages, double causative and assistive in Quechua, etc.). The simplest causative, which is opposed to all other (more complex) types can

be referred to as “first (primary) causative”. Of course, in the case of complementarily distributed affixes serving as causative morphemes, no “second causative” is distinguished.

It should be noted that in some works (especially in traditionalist grammatical descriptions), one of the verbal formations meeting the standard causative definition (as formulated in Xolodovič 1969) may not be referred to as causative but rather as “transitive” while the others are termed “causatives (proper)” (Rus. “ponuditel’nye glagoly”). For the purposes of the present paper, this is a purely terminological distinction which has no relevance for the present discussion.³ “Transitives (proper)”, which are often morphologically and semantically simpler, will be treated as “first causatives”, and causatives (proper) will be referred to as C_2 .

Finally, it is worth noting that this paper deals only with morphological causatives. This means that in the case of coexistence of a morphological and a periphrastic causative in a particular language, the latter is not treated as a C_2 .

Some aspects of the problems related to the second causative were touched upon by Nedjalkov and Sil’nickij (1969: 27f., 46ff.), Comrie (1981: 160) and other typologists. In addition, a few works dealing with causatives in specific languages incorporate some general remarks concerning the possibility of an unrestricted causative derivation (Pennanen 1986) or concerning the variety and origin of double causative semantics (cf. Hoff 1981). Nevertheless, this class of verbs has not been a subject of a separate investigation so far, so a special typological study on C_2 -verbs is needed. The present article does not claim to be an exhaustive treatment of the problem. Because of space limitations, and, often, scantiness of data, I am forced to give here only a short preliminary sketch of the phenomenon under consideration. I confine myself to a classification of relevant data almost without any explanatory digressions. I shall try to follow the classical framework elaborated on in the best specimens of the Leningrad Typological School, such as Nedjalkov and Sil’nickij (1969/1973) or Nedjalkov and Jaxontov (1983/1988). The following topics are going to be discussed:

(i) morphology, i.e. formal aspects of rendering the meanings/functions under question (section 2);

(ii) semantics of C_2 -markers (section 3);

(iii) syntax of C_2 -constructions (section 5).

A separate topic to be discussed is:

(iv) the hierarchy of causative markers and causative verbs (section 4);

a preliminary typological survey of various systems of causatives will be given. In section 4, I focus mostly on relations between “competing” causatives.

As for

(v) the diachrony of C_2 's,

I touch only superficially upon this problem (section 6), which requires a separate study.

In a way, this paper can be regarded as addenda to the sketch on causatives by Nedjalkov and Sil'nickij (1969/1973). However, it is also intended to serve as an approach to the problem of recursive (“double”) morphological categories, a problem not yet sufficiently elaborated by typologists.⁴

2. Morphology

2.1 The main problem to be discussed in this section is the formal relationship between the various causative morphemes. Using \mathbf{X} for the first causative marker, and \mathbf{Y} for the C_2 -marker, the following cases are possible:

2.1.1 doubling: $\mathbf{Y} = \mathbf{X} + \mathbf{X}$; causative morphemes are reiterated, often with some modifications which can be usually described as the result of morphophonological processes.

Compare Huallaga Quechua *-chi-chi-* vs. *-chi-*:

- (1) *wañu-* ‘to die’ \rightarrow *wañu-chi-* ‘to kill’ \rightarrow *wañu-chi-chi-* ‘to cause to kill’ (Weber 1989: 164);

Mansi (Vogul):

- (2) *rūpit(a)-* ‘to work’ \rightarrow *rūpita-pt(u)-* ‘to cause to work’ \rightarrow *rūpita-pt-u-pt(u)-* ‘to ask to work’ (Rombandeeva 1973: 153ff);

Hunzib (Daghestan):

- (3) *ut'-* ‘to sleep’ \rightarrow *ut'-k'-* ‘to make sleep’ \rightarrow *ut'-k'-ek'-* ‘to cause to make sleep’ (Isakov 1986: 13),⁵ etc.

2.1.2 doubling with alternation: $\mathbf{Y} = \mathbf{X}_1 + \mathbf{X}_2$, whereas both \mathbf{X}_1 and \mathbf{X}_2 serve as first causative markers but obligatorily alternate when deriving double (triple etc.) causatives, since two identical morphemes cannot be repeated immediately. This situation is frequent in Turkic languages, cf. Turkish:

- (4) *öl-* 'to die' --> *öl-dür-* 'to kill' --> *öl-dür-t-* 'to have someone killed' --> *öl-dür-t-tür-* 'to get someone to get someone to kill' --> *öl-dür-t-tür-t-* 'to get someone to get someone to get someone to kill' (Lewis 1967: 146).

A slightly different situation is found in Mongolian and Buryat. In Mongolian, there are a few suffixes all serving for the derivation of primary causative (*-aa*, *-gaa*, *-uul*, *-lga*).⁶ A second causative is derived by adding the affix *-uul* or *-lga* only if the causative of the first degree is derived by means of *-aa* or *-gaa*; finally, a third causative can be formed only with *-uul* which is added to a second causative not ending in *-uul*:

- (5) *šatax* 'to burn (intr.)' --> *šat-aa-x* 'to burn (tr.)' --> *šat-aa-lga-x* 'to cause to burn' --> *šat-aa-lg-uul-ax* 'to cause to burn' (Kuz'menkov 1984: 48-49). (Cf. also Buryat examples (55) and (56)).

2.1.3 (non-trivial) including: $Y \supset X$,⁷ i.e. $Y = X + x/x + X$, etc., where *x* is not used as a separate causative affix. This kind of formal relationship between two causatives is typical for New Indo-Aryan languages, cf. Hindi:

- (6) *sun-nā* 'hear' --> *sun-ā-nā* 'tell' --> *sun-vā-nā* 'cause to tell'.

Cf. also the two variants of the Japanese causative morpheme *-(s)ase* / *-(s)as*, as in

- (7) *odorok-as* 'to surprise' --> *odorok-ase* 'to make be surprised' (for a discussion of the difference in meaning, see Shibatani 1973: 345ff.).

In Yukaghir, the second causative is derived by adding *-t'il'e-* to the first causative in *-š-* (it should be stressed that *-t'il'e-* cannot be used without *-š-*), cf.:

- (8) *a-* 'to make' --> *a-š-* 'to cause smb. to make' --> *a-š-t'il'e-* 'to cause smb. through another person to make sth.' (Maslova 1993).

2.1.4 intersecting: *Y* shares a common part with *X* but does not include it. This is the case of Amis where the prefix *pa-* is purely causative whereas *pi-* is used both for causative and transitive non-causative derivation (Starosta 1974: 307ff.).

2.1.5 **Y** does not share any common part with **X**, cf. Dogon causatives in *-mò-* (productive) vs. *-nd-* (non-productive):

- (9) *go* 'to exit' --> *go-ndo* 'to lead out' - *go-mo* 'to cause to go out'
(Plungian 1987: 95ff.; Plungian 1993).

2.2 *Morphological productivity, regularity, and doublet forms*

In many languages the basic difference between two or more causative markers lies not in their semantic or functional properties (to be discussed in section 3) but rather in their productivity/regularity. Such morphemes are often complementarily distributed, each being used with verbs belonging to different classes, so that, in fact, no second causative(s) arise(s), according to the definition given above. Consider the Turkish productive causatives in *-Dir-* and *-t-* (*öl-* 'to die' - *öl-dür-* 'to kill', etc.) vs. unproductive ones in *-Ir-*, *-It-*, and some others, compare *kok-* 'to smell' - *kok-ut-* 'to make smell'; *bit-* 'to finish (intr.)' - *bit-ir-* 'to finish (tr.)' (Lewis 1967: 144 ff.; for a discussion of rules determining the distribution of morphemes, see Džanašić 1976).

However, regular doublet formations derived by analogy sometimes appear beside irregular ones, giving rise to a second causative. This is the case in many Turkic languages which have a few groups each consisting of two (or even more) doublet causatives (see examples (60)-(63)). Consider also Mongolian *beldex* 'to be/become ready' - *belt-gex/beld-uulex* 'to make ready' (Kuz'menkov 1984: 38).

The member of the pair formed by means of a less productive marker tends often to be ousted by the more regular formation, as in Arabic, cf.:

- (10) *ḥazina* 'to be sad' --> *ḥazana* (Form I, apophonic causative)/
ʔaḥzana (Form IV, prefixed causative) 'to sadden'.

The first form is felt to be archaic and is replaced by the Form IV causative (Fassi Fehri 1987: 10ff.).

Finally, both productive and unproductive markers can be used with most (or many) roots providing causative pairs whose members differ in meaning as in Dogon (Plungian 1987: 96ff.; Plungian 1993; see also (9)), Nivkh (Nedjalkov, Otaina, and Xolodovič 1969; see (58)). Compare also these examples from Hungarian:

- (11) *szopik* 'to suck' --> *szop-tat* 'to suckle, to nurse'/*szop-at* 'to make suck';

- (12) *hull(ik)* 'to fall' —> *hull-aszt* 'to cause to fall' / *hull-at* 'to let fall'
(Hetzron 1976: 389-391).

In (12), the first causative is formed with a non-productive suffix *-aszt-*.

2.3 Double affix reduction

In some languages, one of the reiterated morphemes (cf. 2.1.1 and 2.1.2) can be optionally or obligatorily deleted without any changes in the meaning of the causative verb. For instance, in Cochabamba Quechua the verb *wanu-ci-*, derived from *wanu-* 'to die', can be used both as a first causative ('to kill') and as a second causative ('to cause to kill'), cf.:

- (13) *wawa alqu-wan quwi-ta wanu-ci-n*
child dog:INSTR rabbit:ACC die:CAUS
'A child made a dog kill a rabbit.'

It is important to note that the verb **wanu-ci-ci-* does not exist, although double causatives (in *-ci-ci-*) are possible in this language (Shibatani 1971).

2.4 "Empty" causative markers and "one-and-a-half causatives".

The opposite situation is also possible, that is, a second causative marker may be present which is semantically "empty". Since such formations may be qualified as double causatives only from the formal point of view, they can be referred to as "**one-and-a-half causatives**". Some illustrations of this type are given below.

In Azerbaijani, an irregular causative in *-Yr-* can be optionally extended by the productive causative affix *-t-*, cf.:

- (14) *šiš-* 'to swell (intr.)' - *šiš-ir-* / *šiš-ir-t-* 'to swell (tr.)'.

The simpler member of such pairs often tends to fall out of usage, as in Azerbaijani *ič-* 'to drink' - *ič-ir-t-* 'to give to drink'; the verb *ič-ir-* is not used in the modern language (Sevortjan 1962: 513).

The same situation is found in Nancowry (a Nicobarese language) which has two causative affixes, *-um-* and *ha-*, morphologically distributed. The affix *-um-* can also be used with *ha-*causatives:

- (15) *ha-k'ah/h-um-k'ah* 'to cause to know' (Radhakrishnan 1976).

The following Tsez causatives can serve as another illustration of this phenomenon; the causative morpheme can be optionally reduplicated without any difference in meaning:

- (16) *žek'*- 'to hit' --> *žek'-er-/žek'-r-er-* 'to cause to hit'
 (17) *bac'*- 'to eat' --> *bac'-er-/bac'-r-er-* 'to feed; to cause to feed'
 (R. Radžabov, p.c.).

It is interesting to note that both the first and second causatives can be used for denoting double causation (see examples (68), (69) below).

2.5 *The triple causative and causatives of higher degrees*

In many languages reduplication of causative morphemes is not confined to double causatives; triple and more complex causative formations are possible, too. (Below I use the term "second causative" to denote all causative formations differing from the first [i.e. simplest] type).

In general, triple and "n-tuple" causatives have the same (or similar) regularities as the double ones. However, languages tend to avoid reiteration of identical markers, so the phenomenon of reduction (as described in 2.3) is very common in these formations; that is, double causatives may be used for denoting triple causation, and so on, as in Finnish (see Pennanen 1986: 177).

Another way of avoiding bulky chains of identical or similar markers is doubling with alternation (see 2.1.2), as in Turkic languages. Nevertheless, even such simplified formations tend to be reduced by using a double causative for designating a triple causation, as in the following Tuvan sentence:

- (18) *Kara-kys ool-ga ašak-ka Bajyr-ny doŋ-ur-t-kan*
 Kara-kys boy-DAT old man-DAT Bajyr-ACC freeze-CAUS-CAUS-PAST
 'Kara-kys caused the boy to make an old man get Bajyr frozen'
 (Kulikov 1986).

3. Semantics

The most important topic to be discussed in this section is the spectrum of differences between second and first causatives. Using 'CAUS-V' to denote the meaning of a first causative, and 'C₂' for the meaning of C₂, the differences can be classified as follows:

3.1 The most frequent case is simple doubling on the meaning 'cause', i.e. 'C₂' = 'CAUSE (CAUS-V)'. In general, the double causative meaning is rendered iconically, i.e. by means of a double affix (cf. types 2.1.1 and 2.1.2), cf. Turkish example (4). To denote this kind of C₂ the term **double causative** is generally used.

3.2 The C_2 meaning may be described as a result of a multiplication operating on the primary causative meaning. The following types of multiplication can be distinguished:

3.2.1 C_2 is an **intensive** to the first causative. This is the most common case in group 3.2, expressed chiefly in the same way as type 3.1, i.e. with a reiterated affix. Consider the following examples from Oromo (a Cushitic language of Ethiopia and Kenya):

(19) *terfaa-n gurbaa raff-is-e*
 terfaa-NOM boy sleep-CAUS-AGR
 'Terfaa put the boy to sleep (e.g. by rocking him).'

(20) *terfaa-n gurbaa raff-is-iis-e*
 terfaa-NOM boy sleep-CAUS-CAUS-AGR
 'Terfaa made the boy sleep (e.g. by giving him a sleeping pill).'
 (Dubinsky, Lloret, and Newman 1988: 487)

It is worth noting that this meaning is almost undistinguishable from that of coercive causation (i.e. 'to cause to do smth. by force') when added to a causative verb.

3.2.2 Double causatives can be interpreted as **iteratives** to causatives, as in Tuvan examples (38), (39) below.

3.2.3 The C_2 marker can render the **plurality** of certain participants of the causative situation. As a matter of fact, in this rather rare case the C_2 affix (also being usually double) can be regarded as an agreement marker. Such a situation is attested in Carib, where a double causative morpheme serves inter alia for expressing the plurality of objects of causation (causees), cf.:

(21) [...] *kaiku:si ?wa kisi:wopoi*
 'Do not let him be killed by the jaguar.'

(22) *kisi:wopo:poi kaiku:si ?wa*
 'Do not let him be killed by all these jaguars.'

According to Hoff (1981: 153), in the latter sentence the double causative in *-po:po-* (derived from *wo-* 'to kill') is used because of the plurality of the causee.

This meaning can also be rendered non-iconically, i.e. not by means of a reiterated causative morpheme but by adding a special affix. Such is the

case in Nez Perce, where a causative prefix *s'eEp-* (*s'aEp-*) is used for denoting a plural object of causation, while another prefix *sep'eE-* (*sap'aE-*) is used with singular objects (Aoki 1970: 92f.):

- (23) *sap'aE-'ca?ksa* 'I cause it to hang.' (singular causative) - *s'aEp-'ca?ksa* 'I cause them to hang.' (distributive causative)

Tajik double causatives in *-on-on-* can also serve as an illustration for this specific function of reduplicated markers. As my informant states, such forms are rare in modern colloquial speech, often displaying no specific meaning related to their primary counterparts in *-on-*. The only functional peculiarity of these formations can be hypothetically formulated as follows: they tend to be used with a plural causer:

- (24) *Ali vazifaro fahmid*
 Ali problem:ACC understood
 'Ali understood the problem.'
- (25) *mujsafed ba Ali vazifaro fahm-on-d*
 old-man to Ali problem:ACC understand:CAUS
 'The old man explained the problem to Ali.'
- (26) *mualimon ba Ali vazifaro fahm-on-on-dand*
 teachers:PL to Ali problem:ACC understand:CAUS:CAUS
 'The teachers explained the problem to Ali'.⁸

Finally, the plurality of the initial direct object (patient) also can influence the choice between alternative causative markers. In Naukan Eskimo, there are two synonymous suffixes, *-sita-* and *-sise-*, differing in syntactic properties of the corresponding verbs; in particular, *-sise-* verbs tend to be construed with a plural direct object (Menovščikov and Xrakovskij 1970: 105). In all examples above, a special causative marker (a reiterated causative morpheme in Carib and Tajik, a separate causative affix in Nez Perce) can be regarded, in a way, as a morpheme of **plurality** of one of the participants of the causative situation, i.e. as a marker of agreement in number.⁹

3.2.4 In some cases the boundary between iteratives to causatives and plural causatives is rather vague. In Aleut, two causative morphemes are opposed, *-t-* and *-dgu-*, the latter of which is used mainly with plural causees, as in (26'c):

- (26') a. *igluqa-r qaka-ku-r*
 hide-SG dry-NON.FUT-3SG
 'The hide is dry.'
- b. *ayaga-r igluqar qaka-t-i-ku-r*
 woman-SG hide-SG dry-CAUS-Epenth-NON.FUT-3SG
 'The woman is making/makes the hide dry.'
- c. *ayaga-r igluqa-s qaka-dgu-ku-r*
 woman-SG hide-PL dry-CAUS-NON.FUT-3SG
 'The woman is making/makes the hides dry.'

However, as Golovko (1993; 1989: 62) argues, *-dgu-* renders not the plurality of the causee but rather the plurality of caused events, thus expressing causativity and distributivity at the same time.

3.3 Finally, the C_2 semantics can consist of some other kinds of modification of the simple causative meaning.

3.3.1 C_2 expresses a **distant** causation, whereas the more simple causative renders a contact causative. Compare in Hindi:

- (27) *parh-nā* 'to study' - *parh-ā-nā* 'to teach' - *parh-vā-nā* 'to have [someone] to study' (for discussion, see Saksena 1982).

Komi-Zyryan:

- (28) *puk-* 'to sit' - *puk-t-* 'to lay' - *puk-öd-* 'to cause to sit' (Lytkin 1957: 105).

Cf. also the Nivkh and Toda examples (58), (59) in section 4.

The contact/distant causative opposition can be intimately interwoven with the meaning of intensive/coercive causation, as in Klamath, where prefixes *hes-* (*has-*) and *sne-* (*sna-*) are opposed. The latter denotes a more forceful causation by direct or applied force:

- (29) *ba* 'to get up' --> *has-batgal* 'gets someone up from bed (by calling them)'/*sna-batgal* 'gets someone up from bed (by physical action)' (Barker 1964: 112ff.)

3.3.2 C_2 has a **permissive** meaning (for definitions, see Nedjalkov and Sil'nickij 1969: 28). It is worth noting that a permissive meaning most commonly correlates with other types of the non-contact causative meaning, as, for instance, in Evenki:

- (30) *ju-* 'to come out' --> *ju-v-* 'to bring, lead out' --> *ju-vk'en-* 'to force (allow, ask, etc.) to come out'.

According to the universal first formulated by Nedjalkov (1966: 56; cf. also Nedjalkov and Sil'nickij 1969: 29), if a causative morpheme in a language can render a permissive meaning, it can usually also express a factitive one.

3.3.3 C_2 can be an **assistive** as in Cashibo (Peru) where the assistive suffix *-kú/-kú-* is opposed to the causative *-mi-*; cf.

- (31) *?oná-* 'to know' --> *?oná-mi-* 'to teach'
 (32) *mü-* 'to work' --> *mü-kú-* 'to help work' (Shell 1957: 192).

3.3.4 **Curative** meaning (i.e. 'to ask someone to do sth.')

is well-attested in Finnish (see Pennanen 1986). It is also observed for Mansi double causatives in *-lt- + -pt-*, *-pt- + -pt-*, and some others, cf. in Mansi:

- (33) *jünt(u)-* 'to sew' --> *jüntə-lt-a-pt(u)-* 'to ask to sew'
 (34) *ünt(u)-* 'to sit down' --> *ünt-t(u)-* 'to seat' --> *ünt-t-u-pt(a)-* 'to ask to sit down' (Rombandeeva 1973: 156ff.).

In both languages, this meaning can also occur in some primary causatives.

A language with a well-elaborated system of causative verbs may even distinguish among a few shades of the curative meaning. This is the case of Naukan Eskimo where the following curative suffixes are observed:

- (i)-(ii) *-hjqa-*, *-sihjqa-* 'to ask to do smth.'; cf.:
- (34') *əməra-* 'to drink' - *əməgh-tə-fka-* 'to cause to give a drink' (double causative) - *əmər-tə-fka-hjqa-* 'to ask to make smb. give smb. a drink'
- (34'') *atu-* 'to sing' - *atu-sihjqa-* 'to ask to sing';
- (iii) *-hjqr(a)-* 'to order to do smth.', cf.:
- (34''') *əməra-* 'to drink' - *əmrə-hjqr(a)-* 'to order to drink'
- (iv) *hjqsar(a)-* 'to persuade to do smth.', cf.:
- (34''''') *əməra-* 'to drink' - *əmərə-hjqsar(a)-* 'to persuade to drink' (Menovščikov and Xrakovskij 1970: 105-106).

Of course, some of the above mentioned functions can coexist in one

and the same language although one of the functions appears as dominating. In Tuvan, C_2 's can be used not only as double causatives (CAUSE (CAUSE V)) but also as intensives/iteratives to causatives, cf.:

- (35) *ašak yjaš-ty syjyl-dyr-gan*
 old-man tree-ACC break-CAUS-PAST
 'An old man caused [somebody] to break the tree.'
- (36) *ašak yjaš-ty syjyl-dyr-t-kan*
 old-man tree-ACC break-CAUS-CAUS-PAST
 'An old man caused [somebody] to break the tree [by force].'
- (37) *ašak Bajyr-ga inek-ti dile-t-ken*
 old-man Bajyr-DAT cow-ACC look for-CAUS-PAST
 'An old man caused Bajyr to look for the cow [one time].'
- (38) *ašak Bajyr-ga inek-ti dile-t-tir-gen*
 old-man Bajyr-DAT cow-ACC look for-CAUS-CAUS-PAST
 'An old man caused Bajyr to look for the cow [several times].'
- (39) *ašak Bajyr-ga inek-ti dile-t-tir-t-ken*
 old-man Bajyr-DAT cow-ACC look for-CAUS-CAUS-CAUS-PAST
 'An old man caused Bajyr to look for the cow [many times].'
 (Kulikov 1986)

This meaning seems to appear also in some other Turkic languages, cf. remarks by Zimmer (1976: 412) on the possibility of interpreting Turkish double causatives as a single act of causation with emphasis on its forcefulness.

It is difficult to formulate a common property shared by the meanings belonging to the group 3.3. It would be tempting to describe them all as various kinds of complication of the meaning 'cause'. Actually, distant causatives, permissives, and assistives are often derived by means of more complex affixes than simple causatives are (cf. examples (27), (28), (30)). However, even if the difficulties concerned with a strict definition of the vague notion of **semantic complexity** can be overcome, some counter-examples can still be found where such a semantic "complication" does not correspond to a morphological one. For instance, in a Svan dialect spoken in the village of Čini (described in Guščina and Kulikov 1988; Guščina 1990; Sumbatova in press), for one class of verbs, the first causative in *-n-* has a factitive meaning, whereas its C_2 -counterpart (in *-nun-*) has an assistive one, cf.:

- (40) *anaq'-e* '[s/he] bakes' --> *xanaq'-n-e* '[s/he] causes [someone] to bake' --> *xanaq'-nun-e* '[s/he] helps [someone] to bake'.
- (41) *ikwter* '[s/he] steals' --> *xakwter-n-e* '[s/he] causes [someone] to steal' --> *xakwter-nun-e* '[s/he] helps [someone] to steal'.

However, in another verbal class, the opposite situation is found, cf.

- (42) *abarawi* '[s/he] digs' --> *xabaraw-n-e* '[s/he] helps [someone] dig' --> *xabara-wnun-e* '[s/he] causes [someone] to dig'.
- (43) *alaši* '[s/he] saws' --> *xalaš-n-e* '[s/he] helps [someone] to saw' --> *x-alaš-nun-e* '[s/he] causes [someone] to saw'.

Thus, the situation in this Svan dialect may be described as follows:

		causative 1	causative 2
classes of verbs	A	factitive	assistive
	B	assistive	factitive

As Sumbatova suggests, verbs belonging to the class A denote activities which are often (although not always) performed solely, by one person, whereas the majority of those belonging to B denote activities often carried out by a group of persons. In other words, the assistive meaning seems to be quite natural (perhaps even more natural than a factitive one) when applied to the "collective" verbs (group B); it is this fact which can account for morphological simplicity of such assistives as *xabaraw-n-e* or *xalaš-n-e*.

A similar situation is attested in Japanese where permissive causatives occur which are morphologically simpler than their factitive counterparts:

- (44) *tomar-* 'to stay for the night' - *tome* 'to let to stay for the night' - *tomarase* 'to cause to stay for the night' (Xolodovič 1969: 292).

Here the permissive meaning also seems to be more natural (i.e. frequent) than a factitive one representing a more common situation. Thus, a more natural/common/frequent (from the pragmatic point of view, i.e. from the view-point of the frequency of a corresponding situation) meaning tends to be expressed in a morphologically simpler way.

In some languages, the character of this "most common" causation varies considerably from one verb to another, being crucially influenced by the

semantics of the underlying verb. The following causative pairs from Nogai (Turkic) are typical in this respect:

- (45) *iš-* 'to drink' --> *iš-ir-* 'to give to drink, to water' (a contact causation, direct causative) --> *iš-ir-t* 'to cause to drink' (an indirect causation).
- (46) *kon-* 'to stay for the night' --> *kon-dyr-* 'to let stay for the night' (permissive) --> *kon-dyr-t-* 'to cause/order to stay for the night' (factitive).
- (47) *ojna-* 'to play' --> *ojna-t-* 'to amuse [a child]' (a comitative-causative meaning) --> *ojna-t-tyr-* 'to let/allow to play' (permissive) (Kalmykova and Sarueva 1973: 213 ff.).

In (45) the primary causative has a contact causative meaning; in (46) a permissive one, and in (47) a comitative-causative one (like 'I amuse a child' ~ 'I make a child play by playing myself'; for a definition of this meaning, see Nedjalkov and Sil'nickij 1969: 36).

One may assume that the pragmatic **commonness** of a given meaning is more relevant for the hierarchisation of causatives than its semantic complexity.

In the following three paragraphs I will mention only some secondary functions of causative morphemes which appear more rarely than the ones discussed above.

3.4 *Deliberate vs. accidental causation*

This kind of semantic difference between two causative markers appears in some languages although in most cases it occurs only occasionally, in a few pairs, without forming a system, as in Kashmiri: *čhakun* 'to scatter, to sprinkle' - *čhakinavun* vs. *čhəkiravun*, cf.:

- (48) *mahrāzi sənd' məl' chakinēv lukan etər*
 bridegroom of father sprinkle:CAUS people perfume
 'The father of the bridegroom had perfume sprinkled on the people.' (deliberate causation)
- (49) *pakān pakān čhəkirov təm' bati*
 walking walking scatter:CAUS he food
 'He scattered food while walking.' (accidental causation) (Syed 1985: 91-92)

In Bella Coola this distinction seems to be more regular, correlating with the opposition of causative morphemes *-tu-* and *-nic-*, cf.

(50) *ʔüxw-* ‘to burn (intr.)’ – –> *ʔüxw-tu-* ‘to burn (tr.)’ (deliberate causation)

(51) *k’nm-* ‘to tremble’ – –> *k’nm-nic-* ‘to make smb. tremble’ (accidental causation) (Nater 1984: 39; 67 ff.).

A similar distinction is attested in Squamish, cf.:

(52) *hui̇* ‘to be finished’ – –>

a. *hui̇-ut* ‘to prepare’ (a volitional transitive)

b. *hui̇-nəx* ‘to have finished’ (a non-volitional transitive) (Kuipers 1967: 77f.).

3.5 The following examples from Swahili illustrate one more semantic difference between two causatives, a difference which is closely related to that described in the previous paragraph. The first (non-productive) causative in *-y-* is used with a non-agentive (inanimate) subject whereas the second (productive) causative is construed with a usual agentive causer:

(53) *brandi i-li-m-lev-y-a* *Juma*
brandy SUBJ-PAST-OBJ-be drunk-CAUS- Juma
‘Brandy got Juma drunk.’

(54) *mwenzake a-li-m-lew-esh-a* *brandi*
his friend SUBJ-PAST-OBJ-be drunk-CAUS- brandy
‘His friend got him drunk on brandy.’ (Whiteley 1968: 90)

3.6 In Buryat, the third causative (as opposed to the second one) displays the meaning of **subject version**:

(55) *xata-* ‘to dry (intr.)’ – –> *xat-aa-* ‘to dry (tr.)’ – –> *xat-aa-lga-* ‘to cause to dry’ – –> *xat-aa-lg-uul-* ‘to cause to dry oneself/one’s possessions’

(56) *noso-* ‘to flame up’ – –> *nos-oo-* ‘to set sth. on fire’ – –> *nos-oo-lgo-* ‘to cause to set sth. on fire’ – –> *nos-oo-lg-uul-* ‘to cause to set sth. on fire for oneself’ (Sanžeev 1962: 211).

3.7 When the relationship between two alternative causatives is rather intricate and can be described in terms of many parameters, it is difficult to

determine which member of the pair should be treated as the first causative. The distinction between the so-called Forms II and IV in Koranic Arabic can serve as an illustration:

(57) *nzl* 'to come down' --> *nazzala* (II)/*?anzala* (IV) 'to get down'.

The opposition between such causatives is described by Leemhuis (1977) in terms of the following semantic oppositions: 'irrespective of the circumstances/situationally determined', 'accidental/substantial', 'fortuituous/appropriate', etc. (for details, see Leemhuis 1977; Premper 1987: 98ff.).

3.8 Rarely, the difference between alternative formations with causative markers may be described rather in terms of style variations. This is the case of Maldivian, or Divehi (Indo-Aryan), where the first causative is derived by adding suffix *-va-* whereas the "second causative" in *-vva-* displays no causative meaning but merely is used when speaking to noblemen; cf.:

(57') *la-ni* 'puts' --> *la-va-ni* 'causes to put'/*la-vva-ni* 'puts' (honorific verb) (Reynolds, p.c.; see also Reynolds 1978: 165).

3.9 Finally, the function of the C₂ marker (as opposed to the first causative marker) can be limited to just changing syntactic properties of the causative construction. This case will be discussed in more detail below (section 5.2).

4. Hierarchy of causatives

So far I have focused on the category of the second causative taken as a whole without specifying whether there exists more than one type of second causative. However, a situation is possible where more than one C₂ (besides the first causative) can be derived from one and the same verb. Languages having three causatives or more are actually quite common. Below I shall try to give a sketch of the "systematization" of causatives and at the same time to propose an approach to the problem of recursiveness in derivational morphology.

Strictly speaking, for describing various kinds of relationship between causatives we must take into account a few (at least, partially) independent properties, such as:

- (i) the morphological complexity of causatives;
- (ii) incorporation of the simpler causative morpheme by the affix used for deriving a second (third, etc.) causative;¹⁰

- (iii) semantic complexity and/or semantic/pragmatic commonness;
- (iv) productivity of the corresponding causative morphemes (or, rather, the chain of markers);
- (v) morphological regularity of morphemes;
- (vi) restrictedness/unrestrictedness of causative reiteration.

Of course, probably no language exists with unrestricted iterativity of the causative derivation (Comrie 1981: 160). However, in many languages there are no purely formal restrictions (i.e. not related to such things as bulkiness or rarity of corresponding formations). Therefore, this feature seems to be useful for distinguishing between languages where the degree of causativity (i.e. number of causative morphemes in one and the same verbal formation) can increase theoretically ad infinitum, cf. Finnish or Turkish, vs. languages where the degree of causativity is subject to some formal constraints, as in Hindi.¹¹ I propose the following strategy for determining this rather vague feature: a morphological causative is considered unrestrictedly reiterated in the given language if a native speaker is not able to indicate *exactly* the highest possible degree of causativity (cf. Pennanen 1986: 167ff. on reiterated causatives in Finnish).

The systemic relations between causatives might be represented in an exhaustive way by means of a table including all possible combinations of the features above. However, at least some of these features are independent of each other, so this table would be huge, including several hundred boxes. In reality, there are some correlations between these parameters. Namely, they all increase with the increase of degree of causativity, i.e.

- (R) most commonly, a second causative is morphologically and semantically more complex, more productive and more regular, than the first one.

Nevertheless, many languages deviate from this general regularity (R) in some respects. The graphs (charts) sketched below with nodes corresponding to various means of causative derivation serve just to illustrate in the most visual (albeit rather rough) way the basic patterns of deviation from (R). These charts represent the most commonly attested types of causative systems. The coordinate system used here is shown in Figure 1:



Figure 1

Thus, the X-direction represents morphological complexity whereas the Y-direction shows productivity of causative types. A continuous line connecting two nodes on the chart shows that one of the causative morphemes incorporates another. When two morphologically non-related markers coexist, however, I will show their correlation by connecting them with a dotted line. The unrestrictedness of the set of causatives (cf. (vi)) is indicated with a right-directed arrow crowning the line on the chart.

As may be seen, not all parameters are taken into account on this chart. The parameter of morphological regularity often correlates with productivity. Another parameter is semantic complexity (pairing with pragmatic commonness), which sometimes does not coincide with morphological complexity. Strictly speaking, we need an additional dimension for representing this feature on the same chart, which must thus be at least three-dimensional. However, for the sake of clarity, I should like to avoid this complication presuming that this parameter does correspond most commonly to morphological complexity. Only in those cases when an increase in morphological complexity does not match with an increase in semantic complexity will the three-dimensional (XYZ) coordinate system shown in Figure 2 be used:

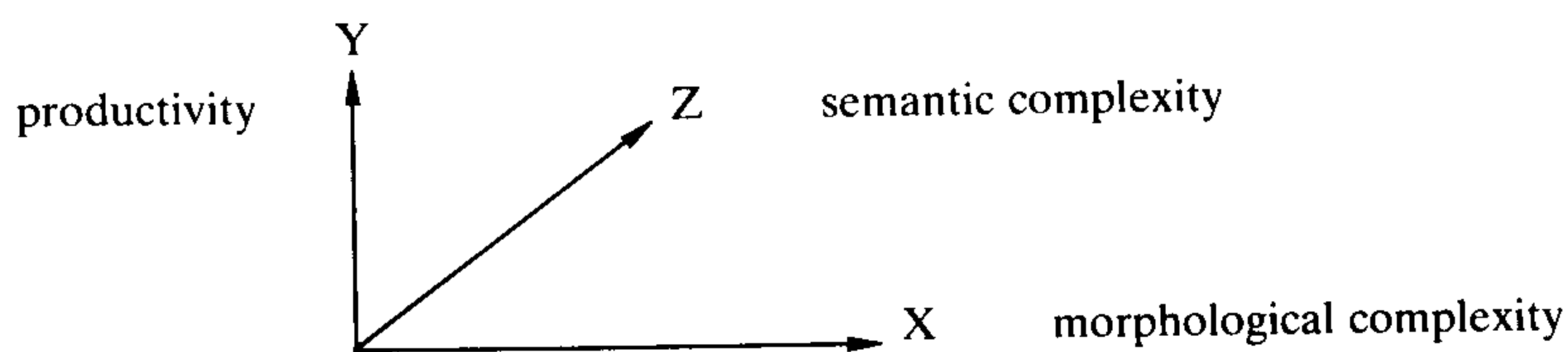


Figure 2

On the contrary, the Y-direction seems to be superfluous in representing causative systems which do not distinguish between competing formations in their productivity.

Such charts representing various types of causative systems (treated mostly from the formal point of view) may be termed **configurations**. Below I give the most commonly attested configurations. For each configuration a few illustrations are presented.¹²

I. Discontinuous configurations:

● -esh-/-ish-
|
● -y-

Swahili

Figure 3

This is the simplest system of two morphologically non-related (at least, synchronically) causatives, observed, for instance, in Swahili (cf. (53-54)), in Bella Coola (cf. (50-51)), etc.

II. Linear configurations.

Such systems appear the most wide-spread.

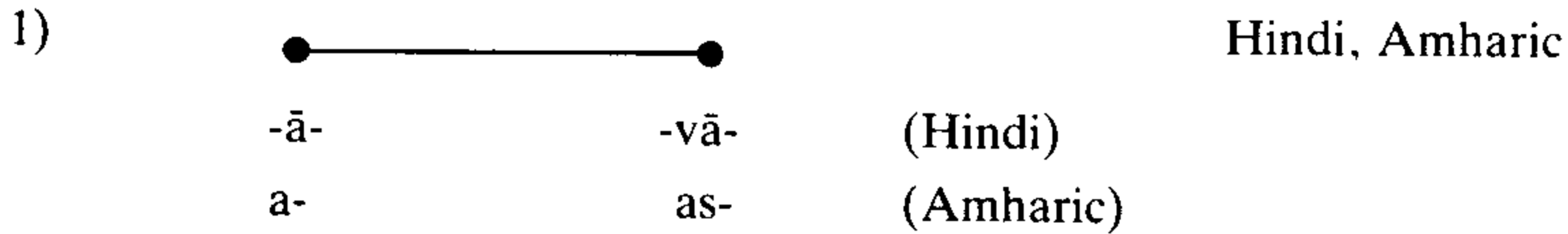


Figure 4

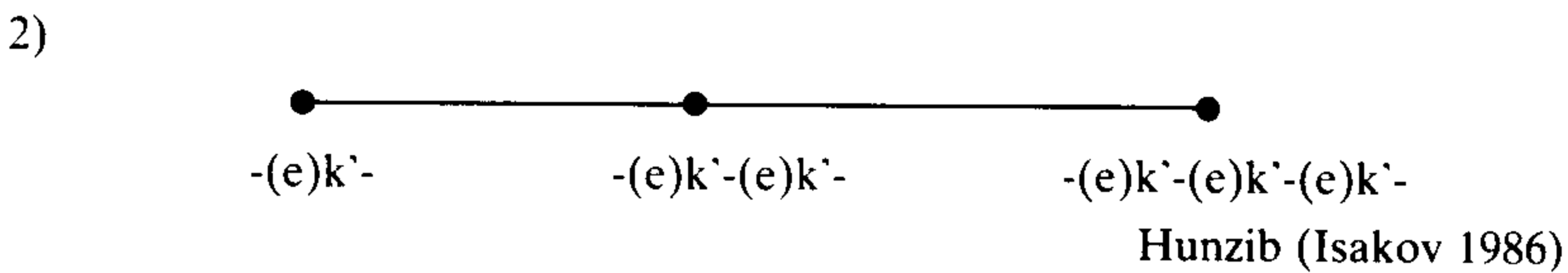


Figure 5

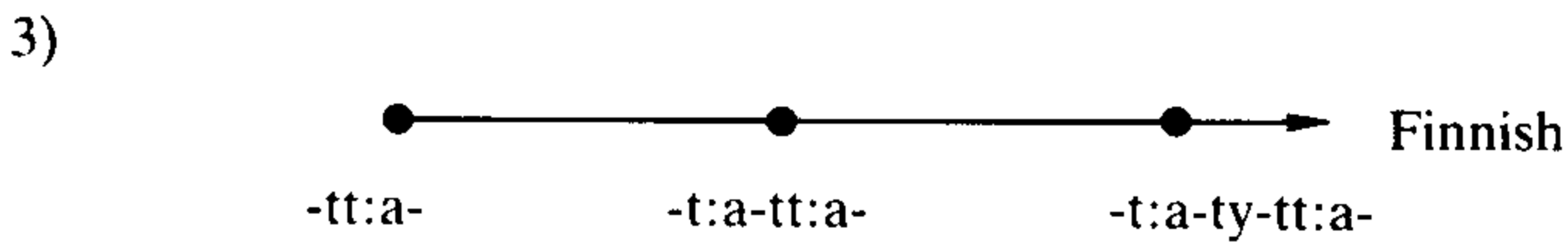


Figure 6

III. Angle configurations.

Such systems contain two (or more) basic causative formations, one of which is productive while the other(s) is/are not; the former can be reiterated providing a double causative.

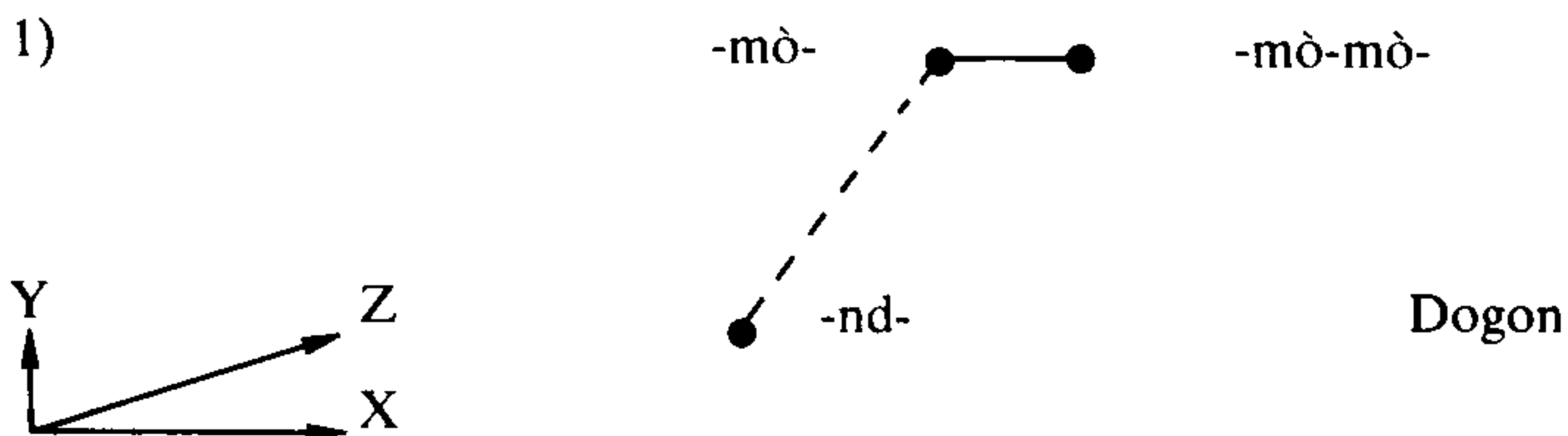


Figure 7

2) In some languages competing causatives differ in their meaning but are not opposed in terms of their productivity:

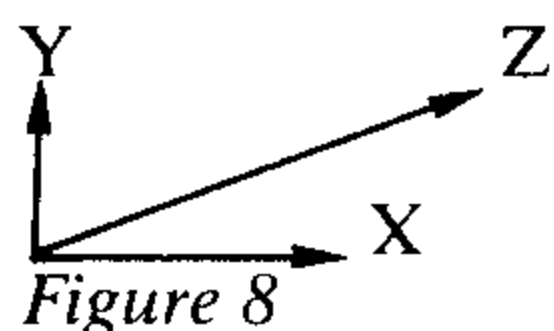
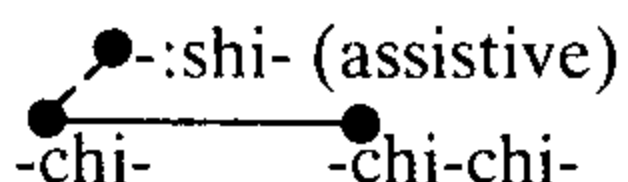


Figure 8



Huallaga Quechua

(Weber 1989: 154; 161ff.)

IV. Triangular configurations

The basic property of such configurations is the coexistence of two causative affixes which can be combined in the same formation. A triangular configuration with opposition both in semantics and productivity is found in Nivkh:

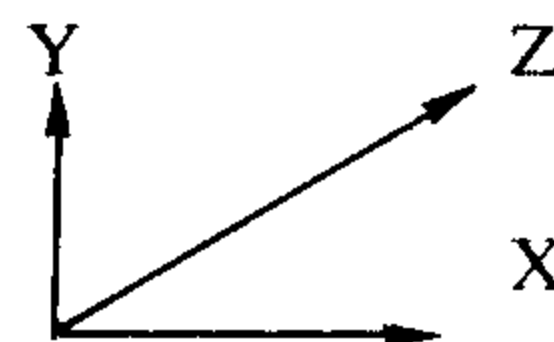
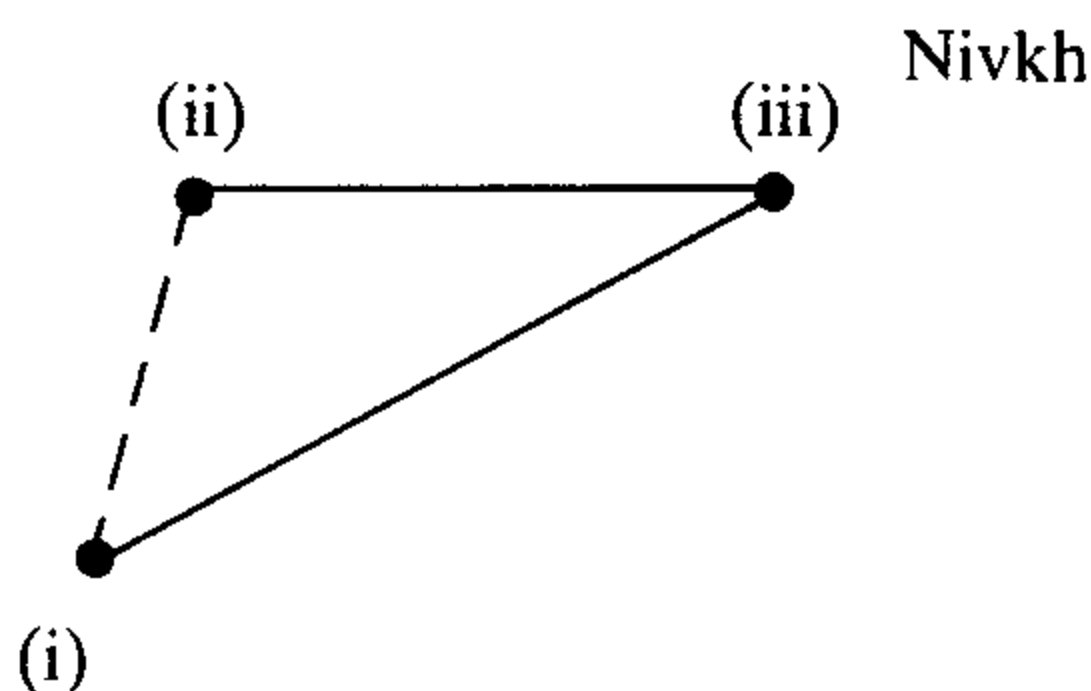


Figure 9



The following two groups of causatives adopted from Nivkh and Toda, respectively, exemplify this configuration. The second member of each quadruple is derived by means of a non-productive causative marker, the third with a productive one, and, finally, the last represents a combination of both markers in one and the same verb:

- (58) *kuku-d'* 'to be scattered' - (i) *ghuku-d'* 'to shake' - (ii) *kuku-gu-d'* 'to let be scattered' - (iii) *ghuku-gu-d'* 'to make someone shake' (Nedjalkov, Otaina, and Xolodovič 1969: 189).

A similar example is adopted from Toda (Dravidian):

- (59) *oEḍ-* 'to move violently, to dance' - *oEṭ-* 'to shake violently (sth. that requires strength)' (irregular contact causative) - *oEḍet-* 'to make sth. shake (e. g. by digging around it and making it less firm)' (regular distant, or mediative, causative) - *oEṭet-* 'to cause smb. to shake' (double causative) (Emeneau 1984: 126ff.).

V. Parallel configurations

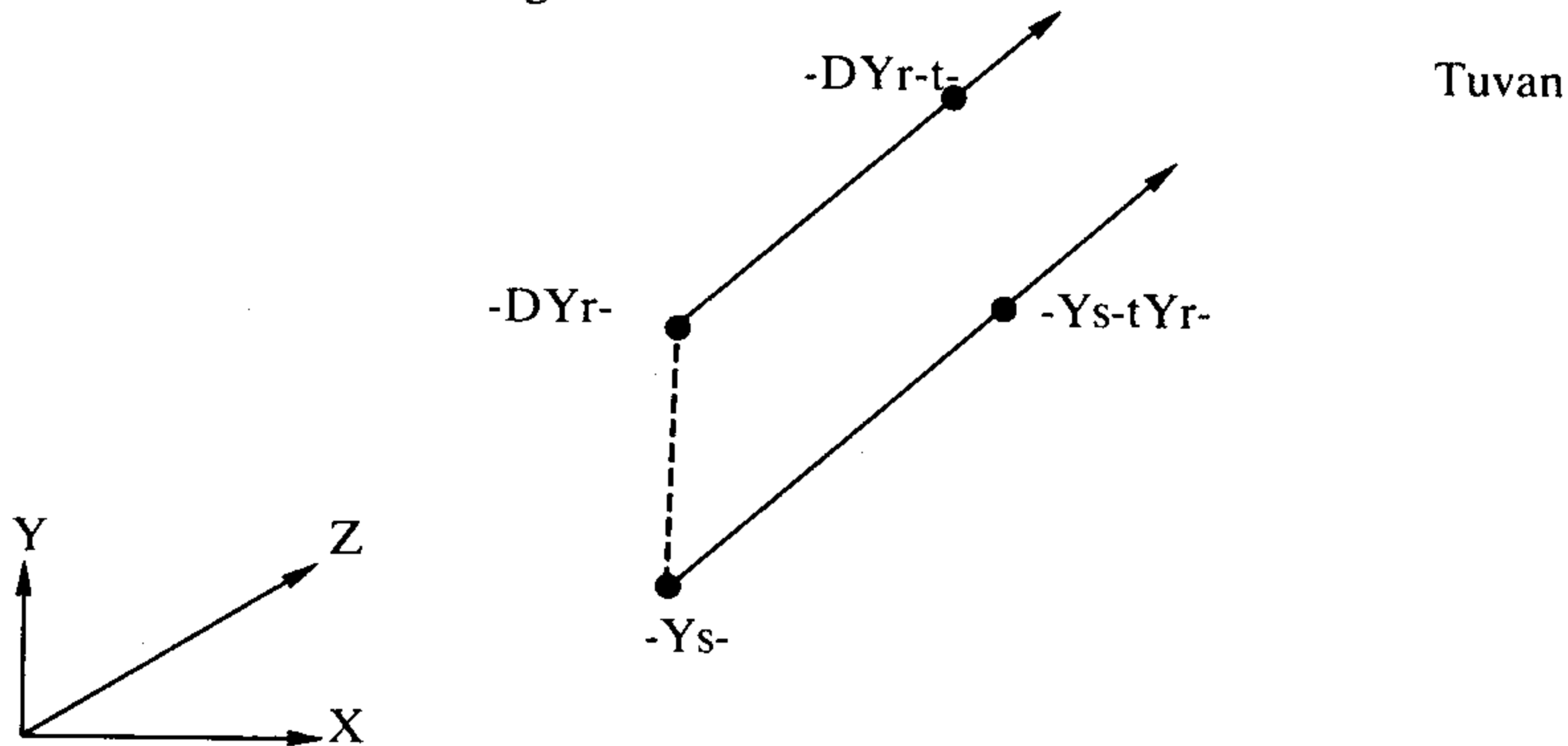


Figure 10

Such systems are observed mostly in languages where some irregular and unproductive causative markers exist in alternation with regular ones. Thus, one and the same verb can form (quasi-)synonymous causatives in two ways, and doublet forms arise, as in Tuvan:

- (60) *kir-* 'enter' --> *kir-it-/kir-dir-* 'to make enter'
 (61) *ber-* 'give' --> *ber-gis-/ber-is-/ber-dir-* 'to make give'
 (62) *kel-* 'come' --> *kel-is-/kel-dir-* 'to make come'
 (63) *sal-* 'put' --> *sal-ys-/sal-dyr-* 'to make put' (Kulikov 1986).

The relations between doublet forms can be rather complicated. For instance, in Tuvan, irregular (archaic) forms seem to be more common than their regular counterparts in *-dYr-*. Semantic differences between doublet forms are rare and do not form any system.

In this section I have sketched only the most widespread configurations. I do not analyze here the intricate (and rather rare) systems in languages that have a few causative morphemes which can combine with each other in the same verb, such as Carib (cf. Hoff 1981) or in Eskimo where a lot of causative suffixes coexist differing in meaning and/or syntactic properties of the corresponding derived verbs (see Menovščikov and Xrakovskij 1970).

5. Syntax

5.1 *The marking of the causee*

The basic topic to be discussed in this section is the type of marking on the causee. Here the following important classes are to be distinguished.

5.1.1 C_2 is a double causative (i.e. CAUSE (CAUSE V)), therefore, there is more than one object of causation (causee). Below I use the term “causee₂” to denote the object of the uppermost predicate CAUSE which is at the same time a causer in relation to the causee₁ (= immediate agent/actor of the caused event), as in

- (64) *Peter* (causer) *caused* *John* (causee₂) *to cause* *Bill* (causee₁) *to leave*.

Not all the constructions with a second causative are equally relevant for this sketch. It is obvious that if the non-causative verb is intransitive, its first causative most commonly follows the same syntactic patterns as non-derived transitive verbs, and the second (double) causative is often similar in its syntactic properties to the first causative derived from the transitive verb. Therefore, only C_2 's derived from transitive verbs seem to be relevant for the typology of the second causative. The following possibilities are to be noted.

5.1.1.1 Causee₂ cannot be expressed at all.

This is the case of Yukaghir (Maslova 1993). In Turkish, the causee is usually marked by dative case when the corresponding causative verb is derived from a transitive one. However, two dative causee NP's can not cooccur in one and the same sentence, therefore, one of them must remain unexpressed, so sentences like (65) are not acceptable:

- (65) **Hasan-a mektub-u müdür-e aç-tır-t-ti-m*
 Hasan-DAT letter-ACC director-DAT open-CAUS-CAUS-PAST-1SG
 ‘I made Hasan make the director open the letter.’ (Zimmer 1976: 411)

5.1.1.2 Causee₂ is marked in the same way as causee₁.

This is the case of Megheb Dargwa, cf.:

- (66) *nuni x~unujze belq-aq-aq-iša uršilize*
 I:ERG wife:LOC write-CAUS-CAUS-1SG.FUT son:LOC
ibrahimišu kayar
 Ibrahim:LAT letter:ABS
 'I shall cause my wife to cause my son to write a letter to Ibrahim' (Magometov 1977: 193)¹³

Cf. also the following Tsez examples:

- (67) *uža magalu bac'-si*
 child:ERG scone:ABS eat-PAST
 'The child ate a scone.'
- (68) *žek'a užiq magalu bac'-er-si/*
 old-man:ERG child:LOC scone:ABS eat-CAUS-PAST/
bac'-r-er-si
 eat-CAUS-CAUS-PAST
 'The old man fed a scone to the child.'
- (69) *Ala žek'uq užiq magalu bac'-er-si/*
 Ali:ERG old-man:LOC child:LOC scone:ABS eat-CAUS-PAST/
bac'-r-er-si
 eat-CAUS-CAUS-PAST
 'Ali caused the old man to feed a scone to the child.' (R. Radžabov, p.c.).

5.1.1.3 The marking of causee₂ is different from the marking of causee₁.

This is the case of many New Indo-Aryan languages, as for instance, in Kashmiri:

- (70) *me chalinəv' mamini zər'yi dobis athi palav*
 I:ERG wash:CAUS Mama through washerman by clothes
 'I got clothes washed by the washerman through Mama.' (Syeed 1985: 84)¹⁴

Cf. also the following Mansi examples:

- (71) *Ira agit supəl juntə-lt-as*
 Ira girl:PL:ABS dress:ABS sew-CAUS-PAST
 'Ira asked the girls to sew a dress.'

- (72) *Irag Kat'a jot agi supəl*
 Ira:DU Katja through girl:ABS dress:ABS
juntə-lt-a-pt-asten
 SEW:CAUS:CAUS:PAST:FIN
 'Two Ira's caused Katja to ask the girl to sew a dress.' (Romban-
 deeva 1964: 9)

However, the assumption made by Wali (1980), who argues that the latter case is much more widespread than that discussed in section 5.1.1.2, seems too categorical. Of course, there exists a general tendency to avoid doubling on syntactic roles (i.e. doubling on cases or other means of overt marking). However, the situation where one and the same case is used for marking of both causees does not appear to be exceptional. Some languages seem to avoid only a **contact** juxtaposition of one and the same case.

Unfortunately, since the second causative is often treated as a marginal phenomenon in the system of verbal categories, the majority of grammars do not offer the necessary data for detailed investigation of this problem.

5.1.2 If 'C₂' ≠ 'CAUSE (CAUSE V)', no conflict between the two causees arises (compare section 3.3); therefore, the problem of case-marking of the causee in such constructions is less relevant than that discussed in the previous paragraph. In some languages, the case of the causee can be quite independent of the opposition between the two causatives, as in Hindi:

- (73) *maī-ne rām-se /-ko kitāb parḥ-vā-ī*
 I-ERG Ram-INSTR/-DAT book read-INDIR.CAUS-PAST.FEM
 'I had Ram read the book.'

The causee agent in (73) is marked by *-ko* when interpreted as affected (i.e. when the claim of the causing action is to get him to read the book); otherwise (i.e. when the aim is only to get the book read), it is marked by *-se* (Saksena 1980: 816).

5.2 The choice between various causative morphemes can correlate with syntactic peculiarities of the causative construction. In this case, one may state that the affix under consideration not only expresses the meaning of CAUSE but also serves as a voice marker.¹⁵ Compare the following Indonesian examples, analyzed by Ogloblin (1974: 106ff.); the grammatical relations borne by the arguments (subject, direct object, oblique object) are shown in parentheses:

- (74) *seorang datu memindjam-kan wang kepada seorang petani*
 a datu borrow:CAUS money to a peasant
 'A datu [elder](S) lent money(DO) to a peasant(OBL).'
- (75) *saja mau memindjam-i engkau uang*
 I MODAL borrow:CAUS you money
 'I(S) am ready to lend you(DO) money(OBL).'

The situation of lending presumes two kinds of non-agentive participants (money and the recipient of the money) which may be called "movable" and "immovable" object (Rus. *podvižnyj i nepodvižnyj ob"ekt*), respectively. There are more situations which can be described in a similar way, such as firing (with bullets as movable objects and targets as immovable ones), planting (with, say, rice and field, respectively), etc. The main difference between the two types of constructions illustrated by (74) and (75) is the following: the causative morpheme *-kan* is used if the movable object appears as DO whereas the immovable one is expressed as OBL; the morpheme *-i* is used in the opposite situation.

In Hausa, the morphological causative has three variants, cf. *fīta* 'to go out' - *fitar/fisshē/fit* 'to take out'. The first variant is constructed with a causee preceded by the preposition *da*, cf.:

- (76) *ya fitad da maciji*
 he took out snake
 'He took out a snake.'

The *-shē*-causative is used only if the causee is a DO expressed by a personal pronoun, cf.:

- (77) *ya fisshē shi*
 he took out he
 'He took him out.'

The last form is used either before a prepositional phrase with *da* or before a dative object followed by a *da*-phrase, compare:

- (78) *ya fid da shi*
 'He took him out.'
- (79) *ya fid mini da shi*
 'He took him out for me.' (Ščeglov 1970: 38-39)

In Naukan Eskimo, the choice between synonymous causative suffixes *-tafka-* and *-sifka-* also correlates with syntactic properties of the corres-

ponding causative constructions. Namely, using the former suffix triggers encoding the patient (initial DO) as DO; in this case the patient is the focus of the sentence. Otherwise, if the causee is promoted to the DO position and becomes focused, the verb takes another suffix, *-sifka-*. Cf.:

(79') *Ivanəm nansagh-təfka Utəlitmun ajvəq*
 Ivan:ERG drag:CAUS Utylin:INSTR walrus:ABS (DO)
 'Ivan causes Utylin to drag a walrus.'

(79'') *Ivanəm nansagh-sifka-ga Utəlin ajvərmən*
 Ivan:ERG drag:CAUS Utylin:ABS (DO) walrus:INSTR
 'Ivan causes Utylin to drag a walrus.' (Menovščikov and Xrakovskij 1970:106).

(For similar examples from the Chaplino dialect of the Eskimo language, also displaying a rich spectrum of causative morphemes marking changes in case-marking in causative constructions, see Vaxtin 1987: 121ff.).

5.3 Adverbial scope

The interaction between the adverbs and the causative clause is often neglected in works on the typology of causative constructions. However, at least one problem is worth investigating from the typological point of view. As demonstrated in studies of the semantics of adverbs, the predicate CAUSE is "transparent" for the scope of some adverbs, i.e. the adverbial scope can be covered by the predicate CAUSE. Cf. the following example analysed by Hochster (1974):

- (80) *The sheriff jailed Max for four years =*
 1) 'The sheriff CAUSE [Max be in jail] four years';
 2) 'The sheriff CAUSE [Max be in jail four years]'

(For a similar phenomenon in Russian, see Maševskaja 1980).

From a typological point of view, this parameter seems to be quite relevant. For instance, the properties of adverbial scopes of different classes in various languages merit detailed investigation. Many scholars have noticed this phenomenon, for instance, in discussing monoclausality/biclausality of the causative constructions (Shibatani 1976).

The second causative has not been studied in detail with respect to adverbial scope. Here I would only like to note an interesting fact men-

tioned by van Olphen (1975: 199). In Hindi, for some adverbs (e.g. *dhīre* 'slowly') a unique scope is possible in constructions with the first causative, cf.:

- (81) *mātā-ne bacce-ko dhīre khil-ā-yā*
 mother-ERG child-DAT slowly eat-CAUS-PAST
 'The mother fed the child slowly.'

However, in the C_2 constructions the situation is quite different: the adverbial scope varies in accordance with the position of the adverb in the sentence:

- (82) *ādmī-ne mātā-se bacce-ko dhīre khil-vā-yā*
 man-ERG mother-INSTR child-DAT slowly eat-CAUS.INDIR-PAST
 'The man had the mother feed the child slowly.'

In (82) the adverbial turns out to be "under" the uppermost CAUSE: CAUSE ((CAUSE ATE) slowly). However, if *dhīre* immediately follows the ergative noun phrase, another reading is obtained:

- (83) *ādmī-ne dhīre mātā-se bacce-ko khil-vā-yā*
 man-ERG slowly mother-INSTR child-DAT eat-CAUS.INDIR-PAST
 'The man slowly had the mother feed the child.'

Here the adverbial scope incorporates the whole sentence: CAUSE (CAUSE ATE) slowly.

As may be seen, the scope of the adverb *dhīre* varies in constructions with the C_2 according to its position in the sentence, whereas this parameter seems to be irrelevant for the first causative.

6. Some remarks on diachrony

In this section I shall only mention one of the aspects of the problem, namely, the sources of the C_2 .

It is quite evident that the most simple way of providing a second (double) causative is the reiteration of one and the same morpheme. Actually, genetically related languages (or even dialects of one and the same language) often differ with respect to the possibility of morpheme doubling, and this fact may be considered as evidence for such a development (more specifically, it demonstrates that one of the related languages developed doubling whereas its relative did not).¹⁶ For example, both Abkhaz and

Abaza use causative prefix *-r-*; however, in Abaza a double causative (in *-r-r-*) can be derived, whereas in Abkhaz the causative prefix can combine with the verb only once.

The same is the case in Alutor and Chukchee: in the former, the causative circumfix *t/n...-at-* or *t/n...av-* may be reiterated, cf.:

- (83') *kuww-at-ək* 'to become dry, to dry (intr.)' -->
tə-kuww-av-ək 'to dry (tr.)' -->
tə-n-kuww-at-av-ək 'to make someone dry (tr.)'
 (Koptjevskaja-Tamm and Muravyova 1993).

However, in Chukchee, double causatives are not possible (Inenlikej, Nedjalkov, and Xolodovič 1969: 266-269).

A more interesting possibility of "causative doubling" may be referred to as **specialization** of one of the affixes belonging to the group of markers which were originally distributed with regard to different verbal classes. In Sanskrit, a unique causative exists which can be derived by adding the suffixes *-aya-* and *-paya-*; the latter is combined with roots ending in *-ā-*:

- (84) *budh* 'to be awaken' --> *bodh-aya-ti* 'makes awaken'
 (85) *dhā* 'to put' --> *dhā-paya-ti* 'makes put'.

In late Sanskrit, an extended variant of the second morpheme, *-āpaya-*, starts to be used, as in (86), although without any specific meaning.

- (86) *aś-* 'to eat' - *aś-āpaya-* 'to feed'.

In Middle Indo-Aryan as well as in Buddhist Hybrid Sanskrit (displaying some Middle Indo-Aryan features), the reflexes of these formations in *-(ā)paya-* acquire a new function, namely, that of double causatives. Cf. in Pali:

- (87) *vaḍḍhati* 'grows (intr.)' -->
vaḍḍh-e-ti 'increases (tr.)' (first causative) -->
vaḍḍh-āpe-ti 'causes to increase' (second causative)
 (Fahs 1985: 220).

The reverse direction of development is also possible. Namely, competing causative formations originally opposed in their function may be reinterpreted so that they start to be distributed in accordance, say, with (morpho)phonological properties of verbal stems. This is hypothesized by some scholars for Turkic causatives in *-t-* vs. *-Dir-*. The former is assumed to be traced to a direct (contact) causative, the latter to an indirect (distant)

one. This distribution is likely to be retained in some rare cases, as in Orkhon Turkic, cf.:

- (88) a. *aG-* 'to rise (aufsteigen)' -->
 b. *aG-it-dim* 'I put [...] to flight'
 c. *aG-tur-dum* 'I ordered [...] to ascend' (Johanson 1976-77).

Compare in Buddhist Hybrid Sanskrit:

- (89) *śobhate* (Pali *sobhati*) 'has a fine appearance' -->
śobhayati (Pali *sobheti*) 'adorns' -->
śobhāpayati (Prakrit *sohāvei*) 'has (causes to be) adorned' (for a detailed study on these formations, see Edgerton 1946).

In New Indo-Aryan languages, the reflexes of these *-(ā)paya*-verbs become regular double causatives.

Obviously, all the topics discussed in the previous sections can be investigated from a diachronic point of view: the rise and decline of C_2 markers, development of their meaning, changes in case-marking on causees, etc. However, the evolution of second causatives is worthy of a separate investigation which lies outside of the realm of the present article.

NOTES

1. In the present paper, the following abbreviations are used: ABS - absolutive, ACC - accusative, AGR - agreement marker, C_2 - second causative, CAUS - causative, CLF - classifier, DAT - dative, DO - direct object, DU - dual, ERG - ergative, FEM - feminine, FIN - finite, FUT - future, IND - indefinite, INDIR - indirect, INSTR - instrumental, LAT - lative, LOC - locative, NOM - nominative, OBJ - object, OBL - oblique, PL - plural, SG - singular, SUBJ - subject.
2. I give here no strict definition of the notion of complexity. Obviously, a causative verb V_i can be regarded as more complex than another causative V_0 if the causative marker used for deriving it from its non-causative counterpart incorporates the derivational affix of V_0 . As for the semantics, the problem of hierarchy of different types of causative meaning needs a separate investigation. This problem will be touched upon in detail in section 3. Here I can only try to clarify it by means of some illustrations. In particular, the meaning of distant causation seems to be more complex than that of contact causation, and a permissive is usually (but not always!) semantically more complex than a factitive.
3. See also remarks by Nedjalkov and Sil'nickij (1969: 34, fn. 17) concerning this distinction.
4. More specifically, the following questions have been generally neglected in typological works:
 - what are the formal and semantic modifications operating on an affix reiterated in one the same verb?
 - what are the side effects of such a reiteration?

5. Reduplication of causative markers is typical of many other Daghestanian languages, too; cf. Zviadauri 1990.
6. I do not specify here the allomorphs of these affixes, which have different vowels determined by the root vocalism.
7. I use here the epithet "non-trivial" because doubling and doubling with alternation are in fact particular cases of inclusion: X+X includes X, etc.
8. It is worth mentioning that this unusual function of the double causative marker may be accounted for by the homonymy of the suffix *-on-*, which is also used as a plural marker in substantives.
9. The secondary functions of causative markers as described in sections 3.2.2 and 3.2.3 are summarized in the insightful sketch by Hoff (1981) on the Carib causative.
10. Cf. such instances of formal relations between causative markers as doubling and including as described in sections 2.1.1.1-3.
11. It is worth mentioning that the data related to this parameter are very difficult to collect on the basis of grammars, since causatives of high degrees ("third" causatives, etc.) are often not mentioned by grammarians although their derivation is possible (albeit perhaps not quite frequent).
12. Apparently, most (perhaps even all) languages demonstrate more than one configuration, since some verbs can provide a unique causative formation whereas from others a couple of causatives may be derived. Thus, in the same language several configurations can coexist.
13. The situation in Megheb Dargwa (often treated as a separate language belonging to the Dargwa group) needs special investigation. According to K. Kazenin and N. Sumbatova (p.c.), double causatives (in *-aq-aq-*) derived from transitive verbs are synonymous with their single counterparts (in *-aq-*). Of course, the example cited by Magometov may be adopted from an idiolect differing in some respects from those studied by Kazenin and Sumbatova.
14. This sentence exemplifies the reduction of the second causative marker (see 2.1.3); for a discussion, see Syeed 1985: 84.
15. Here I follow the theory of voices as elaborated by Xolodovič and Mel'čuk (cf. Xolodovič 1970; Xolodovič and Mel'čuk 1970; Kholodovich, Khrakovsky, and Nedyalkov 1972) treating this category as a way of marking the shift of diathesis by means of verbal affixes.
16. Of course, the opposite situation is also possible, in which one of the languages loses the possibility of doubling on a causative morpheme whereas another does not.

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