When a causative could hide a plural marker: A quest for the origins of the causative in Andi (Nakh-Daghestanian)

Neige Rochant
Université Sorbonne Nouvelle

This paper is a first attempt at reconstructing a Proto-Andi(c) causative marker. Andi is an underdocumented language from Russia belonging to the Avar-Andic-Tsezic branch of the Nakh-Daghestanian family. Three of its nine dialects have been described in grammar sketches (Dirr, 1906; Sulejmanov, 1957; Cercvadze, 1965; Salimov, [1968] 2010), while a corpus in two different dialects amounting to 32,141 words is available. However, there is no Andi dictionary nor any work dedicated to the history of any aspect of Andi. The present study is based on my fieldwork data of two previously undescribed dialects of Andi, aforementioned references and works on related languages.

Nakh-Daghestanian causatives are often auxiliaries meaning 'make' or suffixes that can be traced back to that verb (Authier, 2018), which is typologically common (Kulikov, 2001, 895). Andic and Tsezic languages, however, all display morphologically opaque causative suffixes, which points to their archaicity and raises the question of their origins. The Andi causative suffix can derive bivalent or trivalent transitive verbs from any verb root, or be applied to some verbs without increasing their valency to alter the semantics of the sentence.

1 A morphological alternation in need of an explanation: what could be the historical underlying consonant of the causative?

Whereas most TAME markers attach either to a past or a nonpast thematic suffix (separated from the root by a dot), the Andi causative is a suffix attached directly to the verbal root. It is subject to a morphological alternation between [-*ol*] and [-*oɬ*], following a slightly different distribution form one dialect to another. In the Gagatl dialect, it is in [-*ol*] when followed by the nonpast thematic suffix /*d*/ (used in habitual, infinitive and future)[1] and in [-*oɬ*] in all other forms[2] (cf. table 1).

To explain this alternation, Dirr (1906, 54) proposed that the causative suffix is historically composed of a morpheme -*ol* and a grammaticalized form of the verb 'do', whose paradigm is heteroclite in the Andi dialect: in forms using the nonpast thematic suffix /*d*/, its root is in *i*- (INF *i.d-u*, HAB *i.d-o*, FUT *i.d-ja*). In all other forms, it is in *ih*- (AOR *ih.i*, IMP *ih-o*). After morphological reduction, the causative forms composed of -*ol* + -*ih*- and those composed of -*ol* + *id*- were realized as -*oɬ*- and -*ol.l*- respectively[3]. Support to this hypothesis is provided by a comparison with the realizations of denominative stems formed by the inchoative suffix /-*ɬ*/ < *ɬ (e.g. *tamaʃa-ɬ*- surprise-INCH- 'be surprised'). Indeed, in all Andi dialects, these realizations differ systematically from those of the causative forms despite identical phonotactic properties, which substantiates a reconstruction of the historical underlying form of the causative conso-

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[1] The nonpast thematic suffix /*d*/ gets assimilated by a preceding sonorant.

[2] The perfect form in CL-*iqχ-ol-dːu* easily reads as a realization of *CL-*iqχ-oɬ-dːu* (< *CL-*iqχ-oɬ.i-dːu*), owing to the phonological rule prohibiting CVC syllables other than CVL and CVb (Moroz, 2017).

[3] Following this hypothesis, the transitive imperative form in Zilo would have resulted from an analogical replacement of the causative consonantic element *ɬ* by *ll*.

Table 1: Simple and causative paradigms in the Gagatl dialect (Salimov, [1968] 2010, 212-213, 219-237)

Value	CL-*iqχ*- 'cut'	
	[- CAUS]	[+ CAUS]
AOR	CL-*iqχ.i*	CL-*iqχ-oɫ.i*
PF	CL-*iqχ.i-dːu*	CL-*iqχ-ol-dːu* < *CL-*iqχ-oɫdːu* < *CL-*iqχ-oɫ.i-dːu*
PROG	CL-*iqχ.i-rado*	CL-*iqχ-oɫ.i-rado*
HAB	CL-*iqχ.id-o*	CL-*iqχ-ol.l-o*
INF	CL-*iqχ.id-u*	CL-*iqχ-ol.l-u*
FUT	CL-*iqχ.id-ja*	CL-*iqχ-ol-ja* < *CL-*iqχ-oɫ.l-ja*
IMP(TR)[1]	CL-*iqχ-o*	CL-*iqχ-oɫ-o*

[1] There are two imperative suffixes, whose distribution is conditioned by the transitivity of the construction.

nant as different from the inchoative, hence *l rather than *ɫ[4].

2 Infixation and vowel deletion: was the vocalic element of the causative really part of it?

The vocalic element of the causative is also problematic. Maisak (2016, 1) noticed that the progressive causative form was in **root**-*orallo* in the Rikwani dialect instead of the expected ***root**-*oɫ.i-rado* (table 1). Following Maisak (2016, 1), **root**-*orallo* can be segmented into **root**-*o-ra-l-/d/o*, suggesting that the progressive morpheme is historically split into -*ra* and -*do*. This analysis, supported by the existence of a habitual suffix in -*o* which attaches to the thematic /*d*/ (table 1) and a present suffix -*ra* in the Muni dialect (personal fielnotes), suggests that the causative morpheme is also split, since the segment -*ra* intervenes between the vowel and the consonant of the causative.

Drawing on a semantic and morphological discussion of forms using the suffix -*ra* in different dialects, I put forward the hypothesis that forms in **root**-*orallo* result from **root**.PST-*rallo* by analogical replacement of the PST vowel by *o* (associated with causative forms). Following this, the only element historically expressing causativity in Rikwani progressive causative forms in **root**-*o-ra-l.l-o* would be the first -*l*. Consequently, the vocalic element *o* of the modern causative suffix -*ol* is either dropped after -*ra* in **root**-*o-ra-l.l-o* or has never existed in these forms. I will describe contexts where comparable morphemes exhibit the same reduction behaviour.

First, in the Muni dialect of Andi (mutually inintelligible with presently discussed dialects), the causative suffix /-*ot*/ is reduced to its consonant when applied to vowel-ending roots (which no longer exist in other dialects). Indeed, *ts'a*- 'drink', which will be argued to be vowel-ending based on an analysis of its paradigms in Muni and other Andi dialects, forms a causative in *ts'a-t*-, to be contrasted with causative forms formed upon a consonantal root like *k'am-ot*- (eat-CAUS). The second noteworthy morpheme exhibiting the same behaviour is the transitive imperative suffix, which is the same vowel as the causative /-*o*/ and also the only marker attaching directly to the verb root like the causative. Interestingly, this vowel disappears when followed by the attenuative suffix -*ej* in the Andi dialect (cf. corpus data of Magomedova (2010)), and when

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[4]At the same time, this comparison dismisses a tempting phonological interpretation of the distribution posing an underlying /*ot*/ whose fricative would become sonorant when followed by a consonant, to avoid a CVC structure.

following a vowel-ending root in the Muni dialect[5]. By suggesting that the transitive imperative suffix /-o/ is identical to the -o of the causative from a historical morphological perspective, these cases also add up to examples of reduction of this morpheme.

Then, I will show how data from the the Muni dialect suggest that this vowel /-o/ is rather non-existent than dropped in those contexts, and will present comparative data from the Tsezic languages which support an analysis of this vowel as historically epenthetic. The absence of the causative or imperative vowel *o* could be interpreted as an elision in contact with a preceding or following vowel if instances of a similar elision were attested in Andi. However, no such elision has been found so far, including in a context in the Muni dialect where it could and should occur for this hypothesis to be convincing: when attached to a vowel-ending root, the Muni infinitive suffix -u is desyllabified to -w (e.g. *ts'a* 'drink' INF *ts'a-w*) rather than being elided (which could be counterbalanced by adding an auxiliary in the infinitive for the form to be recognized as infinitive in synchrony, as for the imperative of the same verb). The fact that this vowel close to *o* is not elided, though in the same phonotactic context as the causative and imperative, discredits the hypothesis of an elision for these morphemes. Moreover, the Tsezic languages display causative suffixes in -l or -r (Alekseev, 1988, 167) which are very likely to be cognates of the Andi causative -ol judging from sound correspondences (Bokarev, 1959, 279; Gudava, 1964, 163). The fact that these cognates are strictly consonantal substantiates a reconstruction of the Proto-Andi causative morpheme as strictly consonantal as well, hence suggesting that the vowel *o* present in the modern causative suffix is historically epenthetic. I propose that it was originally added only when needed to prevent forbidden CVC structures (i.e. all other than CV*l* and CV*b*), before being generalized to all phonetic contexts (except aforementioned cases, considered as instances of fossilization).

3   Could the causative be related to the plural marker?

The reconstructed form *-l of the first component of the Proto-Andi causative suffix matches the plural marker. The possibility of a relationship between the Andi causative and plural markers was evoked (but not argued for) by Cercvadze (1965, 268). I will show that this hypothesis is relevant both for Andi and a typological perspective.

The modern Andi plural suffix -l is mostly used on nominals (e.g. And. *boʃi* PL *boʃi-l* 'young of an animal'), but it also optionally attaches to a few forms of the finite verb paradigm as an agreement marker indicating a plural S/P argument[6], including the transitive imperative form in the Andi dialect (Dirr, 1906, 52), e.g. *ts'ad-o*! 'drink (this)!' PL *ts'ad-o-l*! 'drink (these)!'. Building on the hypothesis that the transitive imperative suffix /-o/ is identical to the -o of the causative from a historical morphological perspective, the fact that this specific form can form a plural with the exact same pattern as the first component of the historical causative (*ts'ad-o-l*! 'drink (these)!' vs. **ts'ad-o-l i.d-u* 'to make sme drink') is striking. It suggests that the first component of the historical causative could historically correspond to the plural marker -l, (which dates back from Proto-Avar-Andic-Tsezic, cf. Alekseev (1988, 183)).

In typology, several non-related languages show homonymy between causative forms and plural participant verb forms, e.g. Tiipay (Yuman, Miller (2011, 109–110)). Among the two causative morphemes reconstructed by Voeltz (1977) for Proto-Niger-Congo, one also marks agent plurality. It is noteworthy that both of these markers also have intensive and frequentative semantics, which are tightly connected to causativity both cross-linguistically (Aikhenvald,

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[5]These forms, which coincide with the bare root, are no longer recognised by the Muni speakers as imperative and are hence augmented by the imperative verb *hiʔó!* 'come!', e.g. vowel-ending root *ts'a* 'drink' forms a periphrastic imperative in *ts'a hiʔó*! 'drink!' (lit. 'come drink!').

[6]Number agreement with S/P is otherwise indicated in the prefixal area of some verbs.

2011; Kulikov, 2001, 894) and in Andi (where causativization of some verbs adds an intensive meaning rather than increasing their valency). Intensive meanings could thus be the intermediate link on the chain of the semantic shift from plurality to causativity. This hypothesis finds support in the later suffixation of the verb 'do' to the marker -(*o*)*l*, which could have been motivated by a need of disambiguation at a stage when -(*o*)*l* had become ambiguous between intensive and causative meanings. This scenario substantiates the hypothesis of a semantic shift from plurality to causativity. I will conclude by reminding that the first component of the composite Proto-Andi suffix *-(*o*)*l* + 'do' is shared by other Andic-Tsezic languages and propose a Proto-Avar-Andic-Tsezic causative suffix *-*l* related to the plural marker.

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