

A nonstandard type of affix reordering

The restrictive *kān* in Ulcha

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This paper deals with the restrictive (limitative) marker *kān* ‘only’ in Ulcha (Southern Tungusic). This marker has nontrivial positional features: it can attach before inflectional suffixes (as a derivational affix) or after them (as an enclitic). One might see the process of affix reordering described in Haspelmath (1993) as “externalization of inflection”, when a former clitic becomes a derivational affix. However, there is evidence that the uses of *kān* after inflection are innovative as compared to those before inflection, not vice versa, and this direction of diachronic development is very unexpected. In this paper, I propose an explanation for this nonstandard reordering pattern and show that in fact it has the same motivation and the same mechanisms as previously reported types of affix reordering.

Keywords: Tungusic, Ulcha, restrictive, affix reordering, degrammaticalization

1 Introduction

This paper deals with the morpheme *kān* (~ *qān*) in Ulcha (Tungusic, Khabarovsk Krai, Russia). It has the restrictive (limitative) meaning ‘only’. I focus on the morphosyntactic features of *kān*, which are unusual. In some cases *kān* occupies the slot before inflectional suffixes (cf. its use before the case marker in example 1). Such uses of *kān* will be referred to as internal uses. In some

other cases, it attaches after inflection instead, i.e. behaves rather as an enclitic (cf. its use after the case marker in example 1b); such uses will be referred to as external.

(1) a. *t̪i̯ ̄əktə-kān-ž̌i̯*

that female-**RSTR-INS**

‘only with that woman’ (oskolskaya&stoyanova, oab) ‘only to women’

b. *̄əkə-səl-du-kān*

female-**PL-DAT-RSTR**

‘only to women’ (kalinina_et_al) [VV: this would be a good place to explain in a fn what the referencing means and to refer to Tbl1]

In this paper, a possible diachronic scenario that might have led to this nontrivial synchronic morphological pattern will be discussed.

Similar cases of affix reordering attested in different languages were described in Haspelmath (1993) in terms of the “externalization of inflection”. Haspelmath proposes the diachronic path $\text{stem-A}_{\text{INFL}} + \text{B} > \text{stem-B} + \text{A}_{\text{INFL}}$ motivated by the general semantically based “inflection-outside-derivation” principle.¹ An intermediate stage of this process, which is also attested in some languages, is the stage of doubling. At this stage, the inflectional marker appears twice in the word form:

(2) $\text{stem-A}_{\text{INFL}} + \text{B} > (\text{stem-A}_{\text{INFL}}\text{-B-A}_{\text{INFL}}) > \text{stem-B-A}_{\text{INFL}}$

A classic illustration of this scenario, discussed among others in Haspelmath (1993), comes from the pronoun system of Georgian:

¹ A similar externalization also often accompanies the process of univerbation in compounds: $\text{stem1-A}_{\text{INFL}} + \text{stem2} > \text{stem1-stem2} + \text{A}_{\text{INFL}}$, cf. *mothers-in-law > mother-in-laws* (PL).

- (3) *ra-s-me* > *ra-s-me-s* > *ra-me-s*
 what-DAT-INDEF > what-DAT-INDEF-DAT > what-INDEF-DAT
 ‘something.DAT’ (Haspelmath 1993: 286, citing Vogt 1971: 44-46)

In (3), the indefinite marker *-me* moves closer to the root and the case marker *-s* “externalizes”, i.e. it takes the external position, typical of inflection. The form attested at the intermediate stage of the reordering process, contains two case markers. Hill (2007: 97-106) argues that a more important mechanism enabling the externalization of inflection is a “proportional analogy”. It means that such forms as *ra-me-s* are supported by paradigmatic correspondences (proportions): *ra* ‘what.NOM’ / *ra-me* ‘something.NOM’ = *ra-s* ‘what-DAT’ / *ra-me-s* ‘something-DAT’. García-Castillero (2013: 127-129) proposes one more mechanism working in combination with the mechanism of “proportional analogy”, i.e. the mechanism of “paradigmatic reanalysis”. It means that the form *ra-me-s* can emerge only when *rame-* ‘something’ is reanalyzed as a separate paradigm.

One of Haspelmath’s predictions implied by the “inflection-outside-derivation” principle is that the diachronic process in question is unidirectional (1993: 289), i.e. the reverse change is impossible:

- (4) $A_{\text{INFL}}-B > B-A_{\text{INFL}}$ — attested (externalization of inflection)
 $B-A_{\text{INFL}} > A_{\text{INFL}}-B$ — forbidden (“internalization of inflection”)

Potential exceptions to this prediction were mentioned in the literature, cf. e.g. Majer (2015) on Slavic pronouns. However, they are at least very rare.

Harris & Faarlund (2006) describe another diachronic scenario motivated by similar reasons and giving similar outcomes in terms of “trapped morphology”. The authors analyze cases when a word form and a clitic initially have their own inflectional affixes. At the next stage, due to the

grammaticalization process, one of these inflectional affixes becomes “trapped” between non-inflectional morphemes (one of which is the former clitic). This leads not to reordering as in Haspelmath’s scenario, but to dropping of this trapped inflectional affix:

(5) stem-INFL=clitic-INFL > stem-~~INFL~~-affix-INFL

Following the reconstruction proposed in the paper (*ibid.*: 304-307), this scenario is attested e.g. in the case paradigm of Andi (Nakh-Daghestanian), cf. (6):

(6) **yošk’a-di-hol-d:i* > *yošk’a-l-d:i*

woman-ERG-this.CLII-ERG > woman-OBL-ERG

‘woman.ERG’

(Harris & Faarlund 2006: 306)

The modern oblique stem marker *-l* goes back to the demonstrative ‘this’; the case marker *-d:i* is the former case marker of this demonstrative; and the case marker of the noun itself (*-di*) was “trapped” between the noun root and the demonstrative and disappeared.

Finally, Mithun (2000) discusses a situation when a former derivational affix changes its semantics and becomes an inflectional affix. This semantic reinterpretation induces the formal process of affix reordering:

(7) root-A_{DER}-B_{DER} > root-B_{DER}-A_{INFL}

The example under discussion comes from Cherokee (Iroquoian). The hypothesis, proposed in the paper (*ibid.*: 11-18), is that the innovative infinitive suffix in Cherokee develops from the applicative (causative-instrumental) suffix, reconstructed for Proto-Iroquoian. This functional shift is accompanied with a drastic affix reordering: the suffix moves from the slot of derivational valency-changing morphemes, which is close to the root, to the inflectional “aspect” slot (jumping 7 other slots):

- (8) suffix slots in Southern Iroquoian (Mithun 2000: 17)

REVERSIVE CAUS-INS DAT AND PURP ITER PROG REP COMPL ASPECT MODE

A similar motivation was proposed for the perfectivizer *-ro-* in Old Irish by García-Castillero (2013), who revisits the notion of morphological externalization. The morpheme *-ro-* has a variable linear position. It takes either a more internal (derivational) slot, typical of “lexical preverbs”, i.e. morphemes with spatial and other lexical meanings, or a more external (inflectional) slot of so called “pretonic particles”, reserved for morphemes with grammatical meanings. According to the analysis by García-Castillero, *-ro-* undergoes a semantic shift from a spatial meaning to the meaning of perfectivity and potentiality and then gets an opportunity to move to the external position due to the analogy with morphemes having other grammatical meanings. One more example of such a kind is discussed in Comrie (1985: 89-90) on Chukchi data. In Chukchi, the suffix *-ŋ* (in combination with the prefix *re-*) is used as a desiderative marker and as a future tense marker. While used as a tense marker, *-ŋ* occupies a more external position after the aspect suffix. Comrie considers both the future meaning and the external position of *-ŋ* as innovative (see also a more general analysis of these data in a context of affix reordering in Koch 1996: 245-246; this analysis is very similar to that proposed in Mithun 2000 for Iroquoian).

Ulcha data do not match any of these scenarios. There is some evidence, that external uses as in (1b) are innovative, i.e. the ongoing change $k\bar{a}n + \text{INFL} > \text{INFL} + k\bar{a}n$ is observable. Analyzed in terms of Haspelmath, the evolution of $k\bar{a}n$ appears to be one of the exceptional cases: it can be qualified as the “internalization of inflection”. Analyzed in terms of the general grammaticalization theory, this process also looks strange, since it seems to contradict a general claim that morphemes become more bounded and formally reduced, and not vice versa. Below I will argue that this

direction of affix reordering is, however, indeed the most probable for *kān* in Ulcha and discuss the factors that might determine it.

The paper has the following structure. Section 2 contains basic information on the language and on the data used in the study. Section 3 focuses on the semantics of *kān*: I give some general remarks on restrictive markers in a crosslinguistic perspective, list restrictive markers attested in Ulcha, and describe the place of *kān* within the semantic domain. Section 4 focuses on the semantic scope of *kān* and some inconsistencies between the scope and the linear position of *kān*. Section 5 contains the data on word classes that can attach *kān*. In Section 6, I describe the general morphological properties of *kān* in both the internal and external positions. In Section 7, I characterize the synchronic status of the internal and external *kān* along the continuum between affix, enclitic, and free word. In Section 8, I describe the synchronic distribution of internal vs. external uses of *kān* attested in the data. Section 9 contains some microdiachronic data that support the scenario of the development from internal uses to external. In Section 10, I discuss a probable diachronic source of *kān*. In Section 11, some similar cases attested in other Tungusic languages are listed. In Section 12, I summarize the data on *kān* and formulate a hypothesis on its diachronic evolution. Section 13 contains a more general discussion of the data.

2 Language and data

Ulcha (Ulch, Ulchi, Olcha) belongs to the Nanaic subgroup of Southern Tungusic languages. It is spoken in Ulchsky District of Khabarovsk Krai. The language is endangered. According to the 2010 Census, the number of speakers is 124 (5 percent of the ethnic group). The estimated number of fluent speakers based on our fieldtrips of 2017-2018 is lower: no more than 50 people. All speakers belong to the older generation (the youngest ones are 55-60 years old). All speakers of Ulcha also speak Russian. The use of Ulcha is very restricted. See Gerasimova (2002), Sumbatova

& Gusev (2016) for more sociolinguistic information. Ulcha is not well-described in comparison to other Tungusic languages. There are two editions of Materials on Ulcha, which contain short grammatical sketches, some texts and vocabularies: Petrova (1936) and Sunik (1985). At the same time, several quite large collections of Ulcha texts are available, some of which were used in this study.

This research is based both on textual and elicited data. The text collections that were used are listed in Table 1. They consist of oral spontaneous texts, including folklore, biographies, and ethnographic descriptions. The texts are of two types: (a) those recorded in the 1960s-1970s from speakers with dominant Ulcha and (b) those recorded in the 2000s-2010s from speakers with dominant Russian and fluent but passive Ulcha. A total of 137 uses of *kān* were found in this text sample and analyzed in the study.

Table 1. Texts used in the study²

time period	collected by	current state	size (hh:mm:ss)	abbreviation used in text examples
1960s	O. P. Sunik	published with Russian translation in Sunik (1985)	2753 sentences	sunik
1970s	L. I. Sem	transcribed by N. M. Stoyanova in 2018	01:35:38	sem
2000s	E. Yu. Kalinina et al.	transcribed and translated by the creators	16:06:10	kalinina_et_al
2010s	S. A. Oskolskaya, N. M. Stoyanova	transcribed and translated by the creators	6:18:39	oskolskaya&stoyanova

[VV: please give the full first names, and please give all author names]

² Available Ulcha text collections also include texts collected, transcribed and translated into Japanese, and published by Sh. Kazama [VV: please give full first name]. I looked through uses of *kān*, attested in Kazama (1996; 2002; 2006; 2008; 2010). They do not seem to contradict the observations based on the collections used in this study. However, I did not include examples from Kazama's texts in the sample, since I am not proficient enough in Japanese to interpret all examples in a correct way.

The elicited data were collected in 2017-2018 in the villages of Bulava and Bogorodskoje (Ulchsky district) from 6 fluent speakers of different ages: aid (1931), gip (1934), tsd (1937), spd (1942), nvk (1946), agk (1949). The speakers were instructed to translate short sentences with the restrictive meaning from Russian into Ulcha and to judge the accessibility of Ulcha stimulus sentences with *kān*.

Taking into account the sociolinguistic situation in Ulcha (see above), I rely mainly on the text data and discuss elicitation only as an auxiliary data source.

3 *Kān* and other restrictives in Ulcha

The main meaning of *kān* is the restrictive (limitative) meaning ‘only’, cf. examples above and (9).

- (9) *bəjə-kām-bə-n* *baqu-xa-n*
 body-RSTR-ACC-3SG find-PST-3SG
 ‘{His head suddenly disappeared.} He found only his body.’ (sunik)

The most important features of this meaning are a) its connection to the information structure: the scope of the restrictive marker is a contrastive focus (in example 9, *the body*, which was found, is opposed to the other body-parts which disappeared); b) the nuance of counter-expectation, ‘only X and (unexpectedly) nothing else’ (in example 9 the expectation is that the whole body will be found). See König (1991) for more detail on restrictives and other focus markers in a crosslinguistic perspective.

Morphological expression of the restrictive meaning attested in Ulcha is crosslinguistically rare (König 1991: 20). Restrictive affixes are attested, for example, in some other Tungusic languages (see Section 11); in Samoyedic, which are areally close to Tungusic. See, for example, Khanina & Shluinsky 2011 on Enets; Nikolaeva 2014: 124-126 on Tundra Nenets; Wagner-Nagy

2018: 522-523 on Nganasan; and also in some languages areally and genetically very far from Tungusic: e.g. in Eskimo-Aleut (cf. Miyaoka 2012: 1199-1202 on Central Alaskan Yupik), in Baltic (see Arkadiev 2010 on Lithuanian). In the languages listed, these morphemes can be formally qualified as derivational affixes. At the same time, they are often described as non-prototypical derivation or as a separate exceptional type of morpheme, both because of their unusual semantics and some specific formal features (e.g. the ability to attach to different parts of speech). The inconsistency between their morphological status and their semantics, which is more typical of autonomous words, is reflected in the terms that are used to refer to them in some descriptions of Samoyedic and Tungusic languages: “suffixal particles”, “particles-suffixes”, “intraclitics” (see the discussion on terminology e.g. in Ždanova 2000; Wagner-Nagy 2002). It is important for the further discussion that in Samoyedic and Northern Tungusic restrictives belong to a larger class of such morphological focus markers: Gusev (2019) considers suffixes “inserted between the stem and inflectional affixes” and expressing meanings typical of particles, such as ‘only’, ‘as concerns’, ‘contrary to expectations’ as one of the specific areal features shared by Samoyedic and Tungusic. However, in Ulcha, there are no markers of this type, except for *kān*; other focus marker (including other restrictives, see below) are mostly enclitics or free word forms.

The restrictive meaning ‘only’ is a meaning with a very flexible semantic scope: it is potentially compatible with items of different sizes and of different morphosyntactic types. Mismatches between the linear position and the semantic scope of a restrictive marker often take place. Such mismatches are especially expected in the case of morphological restrictives: their semantic flexibility contradicts their strict position, cf. the discussion in the papers cited above. This is likely the reason why the meaning ‘only’ is relatively rarely expressed by morphological means.

3.1 Uses related to the restrictive

Together with the restrictive proper, the marker *kān* has several other uses related to the restrictive:

3.1.1 *In the sense of ‘at least’*

In this function, it is used in irrealis (non-veridical) contexts (in imperative and optative clauses, in other clauses with the future time reference, in counterfactual clauses and in habitual ones, in modal contexts):

- (10) *siŋgəɾə əni-ni, nəkʉ=bən gəʒʉ-čĭ-j-i, ʉmʉ ĭsal-qām-ba*
 rat mother-3SG baby=to bring-DES-PRS-1SG one eye-RSTR-ACC
tug-bu-ru!
 drop-IMP

‘Mother Rat! I want to bring [berries] to my babies, throw me down at least one berry [lit. one eye].’ (sunik)

- (11) *nu, wən-u xaj-qām-ba=də*
 well.R say-IMP what-RSTR-ACC=EMPH

‘Say at least something!’ (sem)

The most frequent uses of this type are those in the conventionalized expressions *ʉm ~ əm dəɾə-kān(=də)* ‘at least one time’ and *xoŋ-kān(=də)* ‘at least somehow’:

- (12) *əm dəɾə-kān=də ŋənə-xəm bi-čĭ-n*
 one time-RSTR=EMPH go-PST.1SG be-PST-3SG

‘If I went there at least one time!’ (oskolskaya&stoyanova, lpd)

- (13) *bi xon-qān=da ηənu-jlə=mə*
 1SG how-RSTR=EMPH go_away-FUT=PTCL
 ‘I’ll surely go away at least somehow!’ (sunik)

In the ‘at least’-function, *kān* often marks *wh*-pronouns (which are used also as indefinites in Ulcha: e.g. *xaj* ‘what, something’, *xon(i)* ‘how, somehow’), as in (13).

3.1.2 In the sense of ‘ever’, ‘of all kinds’

In combination with indefinite pronouns (= *wh*-pronouns), in irrealis contexts the restrictive marker also takes the wider meaning ‘ever’, ‘of all kinds’ without the nuance of ‘at least’, as in (14). The restrictive proper use is unavailable for indefinite pronouns.

- (14) *bi karandaš-žī xaj=qal xaj-qām-ba anžū-kt-ī*
 1SG pencil.R-INS what=??? what-RSTR-ACC make-DISTR-PRS.1SG
 ‘I [usually] do whatever with a pencil.’ (kalinina_et_al)

3.1.3 In the sense of ‘exactly’, ‘the very X’

This meaning is attested in combination with spatial (15) and temporal (16) expressions, such examples are rare:

- (15) *purən duə-kān-dulə-n bi naaa mən aų-rī aų-rī*
 forest end-RSTR-LOC-3SG 1SG PTCL self sleep-PRS.1SG sleep-PRS.1SG
 ‘I sleep and sleep at the very end of the earth.’ (sem)

- (16) *tī-qān-du guč tī ηən-i=l*
 that-RSTR-DAT again so go-PRS=PTCL
 ‘And at this very instant (she) goes away again.’ (sunik)

See also Section 10 for the diminutive *kān*.

3.2 Other restrictive markers in Ulcha

The morpheme *kān* is not the only restrictive marker in Ulcha. The following markers with the meaning ‘only’ which differ in morphological status and compatibility are attested in my text sample.

3.2.1 *The enclitics =məl and =muk*

The enclitics *=məl* (17) and *=muk* (18). The last one is used mostly in spatial and temporal expressions.

- (17) *ločadamı=məl ʉrčʉlund-ʉ-ksʉ*
 in_Russian=**RSTR** talk-IMP-IMP.PL
 ‘Speak only Russian!’ (oskolskaya&stoyanova, aid)

- (18) *tʃ tʉksa tʃ-du=**muk** ičə-xə-n*
 that hare that-DAT=**RSTR** see-PST-3SG
 ‘That hare saw it only that time.’ (sunik)

3.2.2 *Free word forms*

The prepositive particles *baj* (19) and *təŋ* (20). The latter is used mostly in numeral constructions:

- (19) ***baj**, məni geramsa-ʃ wāž-ʃla-sʃ*
RSTR own bone-REFL.SG spoil-FUT-2SG
 ‘You will only destroy your life [lit. your bones].’ (sunik)

- (20) *təŋ* *ila* *poqto*
 RSTR three road
 ‘only three footprints’ (sunik)

3.2.3 *The enclitic =tan*

Very rare examples of the enclitic =*tan* occur in the data (21).

- (21) *t̪i-k̪i=tan* *saŋgal* *bi*
 that-PROL=RSTR hole be.PRS
 ‘There is a passageway only there.’ (sunik)

3.2.4 *The enclitic =dəkə*

The enclitic =*dəkə*³ is attested in restrictive contexts, cf. (22). However, its main function is rather contrastive (23), and the restrictive use is available only if a clear contrast is implied.

- (22) *Aur-du* *bū-rə-si,* *jədu* *anž̪u-m=dəkə* *bū-ri*
 Aori-DAT give-CONN-NEG.PRS here build-CVB.SIM.SG=PTCL give-PRS
 ‘[Building] is not allowed in Aori. Building is allowed only here.’ (sem)

- (23) *ama* *bu-č̪i,* *ə́nə=dəkə* *uju*
 father die-PST mother=PTCL alive
 ‘The father died, and the mother is alive.’ (sem)

All the markers listed compete with *kən*. At the same time, *kən* can co-occur with at least some of them, cf. example (24):

³ Probably, it can be considered synchronically or at least diachronically as a combination of the enclitics =*də* and =*kə*.

- (24) *təŋ t̪i piktə-kān=də xaj rešajē-m kəwə-n*
only that child-RSTR=EMPH what solve.R-CVB.SIM.SG EXNEG-3SG
 ‘Only this boy did not solve [the task].’ (kalinina_et_al)

The data on different restrictive items are summarized in Table 2.

Table 2. Restrictive markers in Ulcha

marker	morphological status	compatibility	comments
<i>baj</i>	free word form (prepositive)		
<i>təŋ</i>	free word form (prepositive)	mostly numerals	
<i>=tan</i>	enclitic		
<i>=məl</i>	enclitic		
<i>=muk</i>	enclitic	temporal and spatial expressions	
<i>=dəkə</i>	enclitic	restrictive among other contrastive uses	<i>də + kə?</i>
<i>-kān</i>	suffix vs. post-inflectional suffix or enclitic	mostly nouns	

4 The semantic scope of *kān*

The semantic scope of the restrictive *kān* is not always identical to its morphological host. The options attested across the most numerous internal uses with nouns are listed below.

I. The scope of *kān* is the noun marked by *kān*

- (25) *Bulaw-qām-ba s̄ā-r̄i, n̄ā-wa*
 Bulava-RSTR-ACC know-PRS.1SG earth-ACC
 ‘I remember only <Bulava-RSTR>,⁴ the place {and nothing more}.’
 (oskolskaya&stoyanova, spk)

II. The scope of *kān* is the whole multi-word noun phrase.

⁴ The semantic scope is marked with “<...>”. The morphological host is marked as “X-RSTR”.

- (26) *um āktə-kān sīlaw-žū-xa-nī*
 one female-RSTR survive-REP-PST-3SG

‘{Everybody died in this village.} Only <one woman-RSTR> survived.’

(oskolskaya&stoynova, ipr)

III. The scope of *kān* is narrow. It includes a dependent of the noun marked by *kān*, but not the noun itself.

- (27) *um xusə-kān očū-xo-n*
 one male-RSTR remain-PST-3SG

‘{All my sisters are alive, and three boys have already died.} Only <one> boy-RSTR is still alive.’

(oskolskaya&stoynova, lpd)

Example (27) differs slightly from (26): in (27) *boys* had been mentioned already in the previous sentence and *one* is in focus. A more evident case is attested in (28):

- (28) *nāhī-sal tī xaj tuŋdə pīti-kām-bə-n sā-rī bi-či-t*
 Ulcha-PL that what willow mushroom-RSTR-ACC-3SG know-PRS be-PST-3PL

‘The Ulcha people knew only <willow> mushrooms-RSTR {and they did not eat ordinary mushrooms}.’

(oskolskaya&stoynova, tsd)

In (28), *willow mushrooms* are clearly opposed to other sorts of mushrooms.

IV. The scope of *kān* is wide. It affects a higher phrase that includes the noun marked by *kān*.

(29) *tṭ ḡāla-qān-žṭ geolu-m*
 so hand-RSTR-INS row-CVB.SIM.SG

‘{Now people use motor boats.} And long ago people only <rowed by hand-RSTR>.’

(sem)

In (29), the semantic scope is the verb phrase *row by hand* which is opposed to the phrase *use motorboats*.⁵

(30) *tṭj ədi-n ču sal-ṭ-n asṭ-dṭ=gdəl xaḡan-dṭ*
 that husband-3SG most love-PRS-3SG wife-DAT=PTCL ???-DAT
tā-su-m tṭj ṭrga-wa urpi-ču-wə-m
 sit-IPFV-CVB.SIM.SG that pattern-ACC sew-IPFV-DS-CVB.SIM.SG
xaj-wa=də ta-wan-da-s ṭrga-qām-bə
 what-ACC=EMPH do-CAUS-CONN-PRS.NEG pattern-RSTR-ACC
urpi-č-i-n
 sew-IPFV-PRS-3SG

‘While the most favorite wife sits and embroiders patterns, the husband does not make her do anything. She only <embroiders patterns-RSTR>.’ (kalinina_et_al)

In (30), the scope is the phrase *embroider patterns* which is opposed to *do anything else* and not to *embroider anything else*.

The observed scope mismatches are interesting in the context of affix reordering, since they can be considered as one of the triggers of the process. At the same time, it is not the case that the internal and external uses differ from each other in terms of semantic scope: *kān* can take scope

⁵ As far as I know, the verb *geolu-* can describe only rowing by hand, not any kind of floating on boat. So, the whole verb phrases are opposed here, and not only the noun phrases *on motorboats* vs. *by hand*.

over constituents other than its morphological host not only when used externally, but internally as well.

5 Co-occurrence with different word classes

A feature of *kān*, which is important for further discussion, is that this marker exhibits a low degree of “selection” with respect to its hosts (in terms of Zwicky & Pullum 1993). It is mostly used with nouns, but also with some other parts of speech. Its uses with nouns are illustrated in the examples above. In this section, I list and exemplify its uses with other word classes.

First, *kān* is compatible with other substantives, i.e. word classes with noun-like inflection. Particularly, it attaches to personal pronouns and *wh*-pronouns (31), and also to adjective-like words (adjectives, numerals, demonstratives) when they are used in syntactic positions typical of nouns (32).

- (31) *tawančĭ=gun* *bū* *xaj-qām-ba=də* *sā-ri-pu*
 from.there=PTCL 1PL what-RSTR-ACC=EMPH know-PRS-1PL
 ‘Since then we can do at least something.’⁶ (oskolskaya&stoynova, lpd)

- (32) *tĭ-qām-ba* *tau-čĭ* *bi-čĭ-n*
 that-RSTR-ACC gather-IPFV.PRS be-PST-3SG
 ‘{I gathered big thick garlic stems.} I gathered only these.’
 (oskolskaya&stoynova, lpd)

It can be used with locative nouns (a word class intermediate between nouns and postpositions), as in examples (33)-(34). In (33) it attaches to the locative noun *oja-* in its noun-like independent

⁶ See Section 3 on the semantic shift attested for this word class.

use (‘surface’), while (34) illustrates a preposition-like use of the locative noun *duə-* ‘at the edge of’, which is also compatible with *kān* (with a slight semantic shift, see above).

- (33) *sugbu-n pāwa tī oja-qān-dola xōl-ī*
 fish_skin-3SG window so on-RSTR-LOC go_round-PRS
 ‘One covers the window with fish skin only on surface.’ (sem)

- (34) *purənduə-kān-dulə-n*
 forest_end-RSTR-LOC-3SG
 ‘at the very end of the earth’ (sem)

Example (35) illustrates the use of *kān* with nominalizations — heads of complement or adverbial clauses:⁷

- (35) *exa-sal tuča-žū-j-qām-ba-n ičə-xəm*
 cow-PL escape-REP-PRS-RSTR-ACC-3SG see-PST.1SG
 ‘{I did not see the bear itself.} I saw only that cows were escaping [lit. cows’ escaping].’
 (oskolskaya&stoynova, tsd)

A more important fact is that the restrictive is compatible with word classes that morphologically differ from nouns. The main class of this type is numerals, which frequently take *kān* (36). In their primary use, Ulcha numerals are prepositive uninflected noun modifiers with the same morphosyntactic features as adjectives.

⁷ Nominalizations have the same inflectional morphology as nouns. They take nominal case affixes, which indicate the semantic type of the dependent clause, and nominal possessive affixes that express person and number of the subject of the dependent clause.

- (36) *um̩-kān* *mur̩-wə*
 one-RSTR horse-ACC
 ‘only one horse’ (oskolskaya&stoynova, lpd)

At the same time, other adjectives and adjective-like uninflected noun modifiers (demonstratives, possessive pronouns) have more restrictions on compatibility with *kān*.

The presence of the restrictive on adjectives within the noun phrase is attested only in the elicited data. Such examples as (37) are accepted by speakers, but they judge the position on the head noun (as in example 28 above) as more preferable.

- (37) ^{OK}*jədu* *nučkə-kān* *dərə* *bi-či-ni*
 here little-RSTR table be-PST-3SG
 ‘There was only a little table here {and there was no big one}.’ (elicit, aid)

In the texts, only rare uses with substantivized adjectives (which were mentioned above) and with adjectives acting as secondary predicates are attested in (38).

- (38) *tara* *t̩* *wən-di-n* *min* *piktə-wə-j* *uju-kān* *žižu-wən-u*
 then so say-PRS-3SG 1SG child-ACC-1SG alive-RSTR return-CAUS-IMP
 ‘Then he says: Just send my child alive!’ (kalinina_et_al)

Within the adverbial class, the following words: expressions going back to frozen nominal forms, such as *dolbo* ‘at night’, *ž̩(w)a* ‘in summer’, *žuəni* ‘both together’, cf. (39), and the *wh*-adverb *xon(i)* (40). The latter use seems to be lexicalized: a semantic shift takes place here (see Section 3); in all attested examples *kān* is used in combination with the emphatic particle =*də*. No examples with true adverbs are attested in texts, and they are rejected by speakers.

- (39) *žʷwa-qān* *dəŋs-I* *bi-čʷi-m* *ogorod=* *usun-du*
 in_summer-**RSTR** work-PRS be-PST-1SG garden.R garden-DAT
 ‘I worked in the garden only in summertime.’ (kalinina_et_al)

- (40) *əj* *bujum-bə* *xoŋ-qān=da* *wā-xam-bʷi=m=da*
 this animal-ACC how-**RSTR**=EMPH kill-PST-1SG=QUOT=EMPH
 ‘If I only killed this animal by any possible means!’ (sunik)

Finite verbs cannot attach with *kān*. Converbs take *kān* in one particular emphatic construction with reduplication (such examples were found only in the elicited data), see also above on nominalizations.

- (41) *si* *mimbə* *bələčʷi-s-ti,* *wə-m-kān* *wən-di-si*
 2SG 1SG.ACC help-PRS.NEG-2SG say-CVB.SIM.SG-**RSTR** say-PRS-2SG
 ‘You don’t help me, you just talk and nothing more.’ (elicit, spd)

The last class of items which can attach *kān* is Russian fragments in clauses with code-mixing:

- (42) *tara* *nāmban* [*šestj* *mesjacev*]_R-*qān* [*posadili*]_R
 then 3SG.ACC six.R month.GEN.PL.R-**RSTR** set.PST.3PL.R
 ‘Then he was put in prison only for six months.’ (kalinina_et_al)

To conclude, *kān* can attach either to nouns and words with noun-like inflection (in this case the competition between the internal position and the external is attested) or to uninflected words. The compatibility with uninflected words is relevant for the discussion on the internal vs. external position of *kān*, since with these words the position of *kān* is final (i.e. external) by definition. So the presence of such uses might trigger external uses across substantives as well.

Table 3 contains the quantitative data on the compatibility of *kān* with different word classes in the text sample. Uses with nouns make up 50% of all occurrences. Uses with uninflected words are 18%. See some more detailed calculations in Section 9 below.

Table 3. Co-occurrence with different word classes: frequency in texts

word class	N	%
nouns	69	50%
pronouns	33	24%
nominalizations	7	5%
locative nouns	4	3%
frozen adverbials	7	5%
adverbs	9	7%
numerals	6	4%
adjectives	1	1%
switches	1	1%
all substantives	113	82%
all uninflected words	24	18%
total N of uses	137	100%

6 Two positions of *kān*

6.1 The internal position: between inflectional suffixes

I mentioned above, in the internal position *kān* is used before inflection. In this section I will show which slot exactly it occupies within the word form. The Ulcha noun has the following structure: derivational suffixes (such as nominalizing and diminutive), a number suffix, a case suffix, and a possessive suffix (attached to the possessee):

(43) root-DERIVATION-NUMBER-CASE-POSSESSIVE

In our text data, all internal uses of *kān* follow derivational affixes (if any are present) and precede case and possessive inflectional suffixes. There are no internal uses of *kān* before any derivational affix, and there are no examples that make it possible to reveal the mutual order of *kān* and the

the slot before inflectional suffixes, but some others, while attached to verbs, can be used between tense suffixes and personal endings: cf. *kačəmi-ʔə-ɲutu-ðu* ‘s/he finally caught sight of him/her’ (catch.sight.of-AOR-DEF-3SG.OBJ) (Wagner-Nagy 2018: 541).

6.2 The external position: postpositive particles in Ulcha

The external *kən* is not the only item attached after inflectional markers. In this usage, it belongs to the range of postpositive “particles” — enclitics or post-inflectional suffixes (“postfixes”). These are mostly discourse markers: the emphatic *=də*, the additive *=gdəl(i)*, the above mentioned restrictives *=məl* and *=muk*, the question marker *=nu*, and others. The majority of them are monosyllabic. They share one stress with their host: some of them (e.g. *=də*) are unstressed, some others (e.g. *=nu*) are, in contrast, prosodically marked. They follow the vowel harmony, but it is less consistent than within the word form. Sometimes, morphophonological alternations take place. Since Ulcha is left-branching, it is difficult to test their separability from the stem: the only option is that one particle attaches before another. The class of postpositive particles seems to be morphologically heterogeneous: some of them reveal more cohesion with the stem than others. However, this has not been studied in detail yet. The restrictive *kən* in its external use does not much differ from other postpositive particles either semantically or formally. Its formal properties will be described in detail in Section 7 below.

6.3 Doubling

There are two examples with doubling in the text samples. In these examples, *kən* attaches after inflectional markers (the external position), and then the inflectional markers appear again after *kən* (the internal position).

(46) *um isal-ba-qām-ba-n tugb-u!*
 one eye-ACC-RSTR-ACC-3SG drop-IMP
 ‘Throw me down at least one berry!’ (oskolskaya&stoyanova, lpd)

(47) *tī āktā, tī āktā xaj-wa=dā xaj-ra-si-n=guni,*
 that female that female what-ACC=EMPH do.what-CONNNEG-PRS.NEG-3SG=PTCL
baj nāmban-qām-bā urpi-č-i, žā-bdā-n uñu-č-i,
 only 3SG.ACC-RSTR-ACC sew-IPFV-PRS eat-PURP-3SG cook-IPFV-PRS
alə=gun tī, xaj-wa=dā xaj-ra-si-n
 enough=PTCL so what-ACC=PTCL do.what-CONNNEG-PRS.NEG-3SG
 ‘The girl did not do anything, she only sewed for them and cooked, that’s all, she did
 nothing more.’ (kalinina_et_al)

In (46), the structure is -CASE-*kān*-CASE-POSSESSIVE. It is interesting that doubling is not total: the accusative marker is repeated, while the possessive marker (3SG) appears only once (in the final position). Example (47) differs from (46). In (47) *kān* appears after the frozen accusative form of the pronoun (3SG: *nāmban(i)*) and it is followed by the regular nominal accusative marker (-*bā*).⁹

If the internal and external positions of *kān* represent two stages of its morphological evolution, then, at first glance, uses with doubling might be considered as evidence of an intermediate stage of this process. Example (46) with doubling comes from the tale “Frog and Rat” recorded in 2017, cf. the same fragment of this tale from Sunik’s records of the 1960s in (48). The position of *kān* in (48) is internal: the case marker is used only once, after *kān*.

⁹ The frozen accusative form of the personal pronoun can be divided into the same accusative marker (-*ba*) and the suffix that is used with nouns as a possessive marker (*n(i)* 3SG, *t(i)* 3PL), cf. *nānī* ‘he.NOM’ ~ *nāmbanī* ‘he.ACC’; *nāti* ‘they.NOM’ ~ *nābatī* ‘they.ACC’.

(48) (=10) *um̩* *isal-qām-ba* *tug-bu-ru!*
 one eye-RSTR-ACC drop-IMP

‘Throw me down at least one berry [lit. one eye].’ (sunik)

At the same time, both attested examples of doubling demonstrate the pattern “root-INFL-X-INFL”. This pattern is to be expected if the direction of morphological evolution is from external uses of *kān* to internal (see the same intermediate case in Haspelmath’s model, Section 1). Within the evolution from internal uses to external, which is proposed in this paper for Ulcha, the opposite pattern with doubling of *kān* itself (“root-X-INFL-X”: **isal-qām-ba-qān* ‘eye-RSTR-ACC-RSTR’) could be expected as an intermediate stage. Therefore, if these are indeed intermediate uses, they argue against the proposed diachronic scenario. It is more reasonable to interpret the uses with doubling in another way: they are very rare in Ulcha, and they should be qualified as occasional speech errors supported by the instability of this fragment of morphology, rather than a separate stable evolutionary stage. If so, they neither contradict our diachronic scenario, nor support it.

7 The morphological status of *kān*

In this section, the formal features of the internal and external *kān* are analyzed from the point of view of its cohesion with the host. A typical affix (a morpheme with a high degree of cohesion with the stem): (i) is compatible with one particular part of speech or a more narrow word class, (ii) semantically modifies its morphological host and nothing else, (iii) does not have its own stress, (iv) follows word-internal phonological and morphophonological rules, and (v) cannot be separated from the host by any other word, cf. a more detailed list of parameters in Zwicky and Pullum (1993). Below, all these parameters are tested for *kān*.

(i) The low degree of selection and (ii) mobility of *kān* were discussed above. It is compatible with a range of different word classes (see Section 5). Its semantic scope is not always identical to its morphological host: for instance, *kān* can modify the dependent adjective while attached to the head noun (see Section 4).

(iii) In both in the internal and external positions, *kān* always receives the stress. The stress in Ulcha is not well-studied; it is expected to be word-final in a regular case (Petrova 1936: 24). So it provides good reason to differentiate between suffixes and enclitics. The former are expected to be stressed, while the latter are expected to be unstressed. However, long vowels complicate the picture: they have a special accentual status irrespective of their position. And the vowel in *kān* is long. Moreover, due to its focus semantics, *kān* seems to be additionally prosodically marked on the sentence level, rather than on the word level. First, it is therefore impossible to apply the accentual affix-clitic test to the external *kān*. If it is a clitic, then it is rather an enclitomen (a clitic that takes the stress, leaving its host unstressed). Second, the “strong” accent clearly distinguishes the internal *kān* from other non-final suffixes.

(iv) Ulcha is characterized by vowel harmony. The high/low harmony is quite regular within the word form. The allomorph with [a] is chosen in suffixes if the root vowels are low; the allomorph with [ə] is chosen if the root vowels are high (*aga-wa* ‘elder.brother-ACC’ vs. *əgə-wə* ‘aunt-ACC’). There is also optional *o*-harmony: the allomorph with [o] is used along with the [a]-allomorph if the root contains two or more vowels [o] or [u] (*qoldom-ba* ~ *qoldom-bo* ‘cedar-ACC’). In the internal position *kān* follows both types of vowel harmony. In the external position vowel harmony is also attested, though it is much less consistent. It is important that [o]-harmony

(*um̄-qōn* ‘only one’), which is optional even within the word, is attested not only for the internal position, but also for the external. It is evidence of a high degree of cohesion.¹⁰

There is an alternation [k] ~ [q] in Ulcha which is governed by vowel harmony: [k] is used in the context of high vowels, [q] is used in the context of low vowels. In general, this rule is not very strict. However, it is applied to *kān* both in the external and internal positions. The low variants are *qān* and *kān*.

The consonant [n] regularly goes into [ŋ] before [k] and [q]. *Kān* follows this rule: it triggers the alternation in its host (*xon* ‘how’ ~ *xoŋ-qōn* ‘anyhow’; *nāh̄i xəsə-wə-ni* ‘the Ulcha language: Ulcha language-3SG’ ~ *nāh̄i xəsə-wə-ŋ-kān* ‘only the Ulcha language: Ulcha language-ACC-3SG-RSTR’).

The consonant [n] goes into [m] before [b]. The final consonant of *kān* follows this rule in internal use before the accusative suffix *-bə* (*əktəkāmbə* ‘only the woman’).

There are two declension types in Ulcha: one for vowel-final stems and one for consonant-final stems. The presence of the internal *kān*, which ends in the consonant, conditions the set of case allomorphs, typical of the consonant declension type, according to the general rule (*əktə-lə* ‘from the woman: woman-LOC’ ~ *əktə-kān-dulə* ‘only from the woman: woman-RSTR-LOC’). Moreover, while ordinary *n*-stems have a tendency to change their declension type, stems marked with *kān* never behave as vowel-final stems.

¹⁰ It is interesting that the youngest speaker, agk, who consistently uses only the external *kān* (see Section 9), behaves in a special way also in this respect. He consistently rejects the harmonizing variant (*qān* is the only option for him).

Usually, the consonant [n] in noun *n*-stems is not pronounced in the final position (*ńiŋman-du* ‘in the tale: tale-DAT’ ~ *ńiŋma* ‘tale.NOM’). The final -n of the restrictive *kān* is always pronounced.¹¹

The facts listed above are summarized in Table 4.

Table 4. *Kān* within the affix ~ clitic ~ free word continuum

	typical noun derivational affix	internal <i>kān</i>	external <i>kān</i>	other postpositive particles
compatibility with different word classes	no	yes	yes	yes or no
mobility: can it modify anything other than its morphological host?	no	yes	yes	yes or no
vowel harmony	yes	yes	yes/no	yes/no or no
<i>k</i> ~ <i>q</i>	yes/no	yes/no	yes/no	?
<i>n+k</i> > <i>ŋk</i>	yes	yes	yes	?
final - <i>n</i>	no/yes	yes	yes	0
<i>n</i> > <i>m</i> before - <i>b</i>	yes	yes	0	0
case affixes typical of <i>n</i> -stems	yes	yes	0	0
stress	no	yes	yes	yes or no
separability: can be separated by any clitic?	0	0	no	yes or no

The table shows that in the internal position *kān* differs in some respects from a typical derivational affix. In the external position it does not differ a lot from other postpositive particles. At the same time, it is closer to post-inflectional suffixes (postfixes) than to enclitics. The main difference between the internal and external use concerns vowel harmony.

¹¹ For unmarked nominatives, in which *kān* is final, the presence of [n] may be considered as an argument for a special status of the internal *kān* (along with the consistent consonant declension) or as an argument for treating this position of *kān* as external.

8 Internal vs. external uses of *kān*: The distribution

In the texts, external uses of *kān* are much rarer than internal. The rate of external uses in the whole sample is 12% (10 out of 83,¹² see Table 6 in Section 9 for more detail). The numbers are too small to make significant assumptions on the distribution between the positions. However, I have made the following preliminary observations on the external uses attested in the text sample. First, two of the external uses are uses with personal pronouns, as in (49). These are the only personal pronouns attested in the sample (one more use is in the unmarked nominative, so for this use it is impossible to differentiate between the two positions).

- (49) *səruč-i mim-bə žə-bd-i, mim-bə-kān bi-ə-si-n=guni*
 wake-PRS 1SG-ACC eat-PURP-1SG 1SG-ACC-RSTR be-CONN-PRS-3SG=PTCL
 ‘[My parents] wake me to, so that I can have a meal – not only me {but also my brothers}.’

(oskolskaya&stoynova, aid)

Second, two of the external uses of *kān* are with nouns marked by the plural affix, as in (50). There are no such internal uses in the sample. For the other five external uses, very similar examples with the internal *kān* are found in the same sample.

- (50) *I Oču mən piktə-səl-ži-qān bi-či-t*
 and.R Ochu self child-PL-INS-RSTR be-PST-3PL
 ‘{Ochu’s husband died.} And Ochu lived only with her children’.

(oskolskaya&stoynova, agk)

¹² Only substantives were counted, nominatives with no overt inflectional markers were excluded.

The elicited data confirm the first tendency (51). In the elicitation task, *kān* was used by speakers in both positions with nouns. At the same time, all speakers consistently used only the external *kān* with personal pronouns.¹³

(51) internal/external ↔ external

NOUN — PERSONAL PRONOUN

The plural forms with the internal *kān* were used by speakers in elicitation, but the position of *kān* in this case was quite unusual – between the plural marker and the case marker (see Section 6.1 above).

The data of elicitation show also one more tendency, which was not attested in the text data because of the small size of the sample. A correlation with the case was revealed across uses with nouns. In the accusative (*-wə*), the internal *kān* was chosen by speakers. In the instrumental case (*-ži*), speakers used both the internal and external *kān* (there is variation both between speakers and in data from one and the same speaker). In the dative/essive (*-du*), the external *kān* was preferred. For the other case forms I do not have enough data for such clear results.¹⁴

(52) internal ← internal/external → external

ACC — INS — DAT/ESS

I have the following explanations for the attested tendencies. The asymmetry between nouns and pronouns may result from the morphological integrity of personal pronouns. The morphological structure of personal pronouns is much less clear than that of nouns and the morpheme boundaries are not as evident. Cf. a fragment of the paradigm in Table 5:

¹³ The data from the youngest speaker were not included, see Section 9.

¹⁴ Across the external uses in texts, two uses with the accusative case, one with the instrumental case, and one with the dative case, are attested.

Table 5. A fragment of the nominal paradigm

case	noun <i>āpūn-</i> ‘hat’	pronoun ‘I’	pronoun ‘(s)he’
NOM	<i>āpū</i>	<i>bi</i>	<i>nān(i)</i>
ACC	<i>āpūn-ba</i>	<i>mimbə</i>	<i>nāmbanī</i>
DAT	<i>āpūn-du</i>	<i>mindu</i>	<i>nāndūnī</i>

If the initial domain of *kān* are nouns and personal pronouns were involved later, when their case forms had been already frozen, then it is natural that pronouns obtain the external position of *kān*.

The avoidance of the internal position of *kān* for nouns marked by the plural suffix can be explained by the fact that in these uses the unexpected position of *kān* between inflectional markers, which is usually hidden (namely, it does not differ from that of derivational affixes at the surface level), becomes visible.

I have no convincing explanation for the asymmetries between case forms at the moment.

9 Micro-diachrony: Internal uses > external uses

Table 6 shows the frequency of external vs. internal uses of *kān* in two text samples, comparable in size and genres, which were collected from two generations of Ulcha speakers. The first one consists of texts recorded in the 1960s-1970s from speakers with dominant Ulcha (the text collections of O. P. Sunik and L. I. Sem [VV: please give the full first name]). The second one consists of texts recorded in the 2000s-2010s from the last speakers of Ulcha, who today use it less extensively than Russian. See Section 2 for more detail.

Only uses with inflected words, for which the competition between the internal and external positions takes place, (i.e. “substantives”: nouns, pronouns, nominalizations) were included. Rare uses with doubling were counted as external uses. Ambiguous uses, in which the inflectional slot is not filled and there is no evident possibility to differentiate between the internal and external uses of *kān* (unmarked nominatives), were treated separately (“0” in Table 6).

Table 6. *Kān* in texts of different periods: % of external uses (only substantives)

time period	internal	external	0	total N	% of external uses (out of int+ext)	2-tailed exact Fisher test (external vs. internal)
1960s–1970s	46	1	11	58	2%	sign, p=0.0019 [VV: the standard way of reporting chi-sq significance tests is to use the following format: $\chi = xx, df = xx, p = 0.0019^{**}$, ie to give also the chi-sq value and the degrees of freedom, and indicate significance with the relevant set of asterisks]
2000s–2010s	27	9	19	55	25%	

These data show that the rate of external uses in the “late texts” is significantly higher than in the “early texts”.¹⁵

One more tendency, attested in the data of these two text samples, is shown in Table 7.

Table 7. *Kān* in texts of different periods: % of uninflected words, % of ambiguous uses

time period	uninflected	substantives	% uninflected	2-tailed exact Fisher test	ambiguous (uninflected+0)	with variation (internal+external)	% ambiguous	2-tailed exact Fisher’s test
1960s–1970s	4	58	6%	sign, p=0.0028 [$\chi = xx, df = xx, p = 0.0028^{**}$]	15	47	24%	sign, p=0.0015 [$\chi = xx, df = xx, p = 0.0015^{**}$]
2000s–2010s	20	55	27%		39	36	52%	

¹⁵ The earliest available Ulcha texts are 10 short stories published in Petrova (1936). They were recorded in the 1929–1935 in Leningrad (St Petersburg) from several students – native speakers of Ulcha. In these texts, only two clear uses of *kān* were found. Both are with the adverb *xon* ‘how’. So there is no possibility to estimate the distribution between internal and external uses of *kān* for this period.

The table shows that the rate of uses with uninflected words in the sample of “late texts” is higher. Moreover, all four uses with uninflected words attested in “early texts” contain one and the same adverb *xon* ‘how’. The effect is even more visible if we compare all uses in ambiguous contexts (with uninflected words and with unmarked nominatives, i.e. words with no option for the positional variation) to all uses in contexts of variation (with substantives with the inflectional slot filled: external uses + internal ones). It means that through this short time period *kān* enlarges the pool of available stems with stems for which the final (external) position of *kān* is the only option by definition. In contrast, modern speakers tend to avoid the use of *kān* in contexts of variation, i.e. those causing morphological difficulties. In these contexts, speakers presumably chose other restrictive markers instead.

The elicited data from the modern speakers of different ages also confirm the shift from internal to external uses of *kān*. Older speakers use *kān* both in the external and internal positions. The uses are distributed across contexts (see Section 8). The youngest and least fluent speaker (agk, 1949 year of birth) consistently prefers the external position in all contexts. Uses with uninflected words are accepted by all of the speakers.

Therefore, both texts and elicitation provide evidence of the micro-diachronic shift from the internal use of *kān* to the external and not vice versa:

$$(53) \text{ } k\bar{a}n + \text{INFL} > \text{INFL} + k\bar{a}n$$

10 The diachronic source: Diminutive?

The picture of the morphological evolution of *kān* would be clearer if its diachronic source were known. The diminutive derivational suffix **kān*, which is formally identical to the restrictive morpheme, seems to be a probable candidate.

The diminutive **kĕn* is a very old derivational suffix. It is attested in the majority of Tungusic languages and also in Manchu, so it can be reconstructed at least for the Proto-Tungusic stage, see Benzing (1955: 58-60); Sunik (1982: 100-115), and especially Alonso de la Fuente (2018).¹⁶ In all of these languages it has the diminutive meaning (at least in some uses); for more on this suffix, particularly in Tungusic languages, see Pakendorf & Krivoshapkina (2014), Pakendorf (2016) (Even), Whaley & Li 1998 (Oroqen) and Bulatova 2015 (Evenki).

In some Tungusic languages it attaches not only to nouns, but also to adjectives and sometimes to other parts of speech.

In some Tungusic languages, the polysemy with meanings similar to those of Ulcha *kĕn* are reported for the diminutive **kĕn*. Pakendorf (2016: 147) mentions that in Lamunxhin Even the diminutive suffix has the meaning of exactitude (‘exactly X’, ‘the very X’) in combination with locative and temporal expressions. Whaley & Li (1998) include the meaning ‘only’ which is realized in combination with numerals in the range of meanings attested for the diminutive suffix in Oroqen.¹⁷

In Ulcha, the diminutive *kĕn* is also attested. In contrast to the restrictive, it is not fully productive. At least, it is less productive than in Nanai (which is the closest sister to Ulcha). Many uses are lexicalized. Some examples from the dictionary (Sunik 1985), including highly lexicalized ones, are given in (54). In the dictionary there are 14 lexemes with more or less clear diminutive or diminutive-like meanings. The list includes both nouns and adjectives.¹⁸

¹⁶ In particular, Alonso de la Fuente (2018: 128–131) argues that one more diminutive suffix, i. e. *-čĕn*, attested in Northern Tungusic, is also related to *-kĕn*: it develops from *-kĕn* via spontaneous “expressive” palatalization.

¹⁷ Note, however, that the interpretation of these uses as uses of one and the same marker and not of two separate ones is just a hypothetical interpretation. See different points of view on the nature of the diminutive and restrictive *kĕn* in Oroqen, mentioned in Whaley & Li (1998) and their argumentation.

¹⁸ There are also two adverbs that seem to contain the diminutive *kĕn* in a lexicalized use: *aja-qĕn-žĭ* and *ulĕ-kĕn-žĭ* ‘well: good-kĕn-ADVZ’ (they are translated by speakers into Russian as *хорошенько* ‘well.DIM’).

- (54) *mugdə(n)* ‘stump’ — *mugdəŋ-kə(n)* ‘a little stump’
ə́nə ‘mother’ — *ə́nə-kə(n)* ‘mother-in-law, stepmother’
mur̥in ‘horse’ — *mur̥in-qa(n)* ‘a little horse, a colt’
ńawža ‘young’ — *ńawža-qa(n)* ‘boy’
ńūčī — *ńūčī-kə(n)* ‘little’

At the synchronic level, the diminutive *kən* and the restrictive *kən* in Ulcha seem to be rather homophones. Some morphological properties of the diminutive differ from those of the restrictive (cf. Section 7). Unlike the restrictive, but like other derivational affixes, the diminutive attaches before the plural marker.¹⁹ The final *-n* of this suffix is often omitted (as in other *n*-final stems and in contrast to *-n* of the restrictive). The vowel is not always long or prosodically marked (cf. example 54: the length is not marked of any of the diminutives in Sunik’s 1985 dictionary²⁰). See the total list of differences between the diminutive and the restrictive in Table 8.

Table 8. Morphological properties of the diminutive vs. restrictive *kən* in Ulcha

	diminutive <i>kən</i>	restrictive <i>kən</i>
compatible with	nouns, adjectives	wider range of PoS
productivity	yes/no	yes
lexicalization	many uses are lexicalized	no
position	before PL	after PL
the final <i>-n</i>	often omitted	usually pronounced
the vowel	long or short	long, prosodically marked

Therefore, two items of *kən* in Ulcha do not form one and the same morpheme synchronically. In principle, however, this does not contradict the possibility of a diachronic relation between them.

¹⁹ Cf., however, the noun *purilkən* ‘little children’ derived from *puril* ‘children’. The word *puril* contains the final element *-l*, which functions in Ulcha as one of the plural markers. But in *puril* it cannot be considered a full suffix, because this word has no regular singular pair without *-l*.

²⁰ In general, O. P. [VV: please give full first name] Sunik marks the length, but not very consistently. In texts published in the same book some uses of the restrictive *kən* are marked with the length mark, some are marked with the stress mark, some are unmarked.

From a crosslinguistic perspective, the diachronic connection between the diminutive and the restrictive seems possible. The diminutive is not a typical diachronic source for restrictives, e.g. it is not mentioned in the list of common diachronic sources of restrictives by König (1991: 159-163). However, the polysemy pattern “diminutive + restrictive” is attested in some unrelated languages. A list of such languages is given in Jurafsky (1996: 553-554). All examples found by Jurafsky represent uses of the diminutive in combination with numerals. His hypothesis on the semantic link between the diminutive meaning and the restrictive is based on the semantics of numerals. The diminutive meaning ‘a bit’ is reinterpreted in combination with numerals as ‘not more than NUM’ and then develops into ‘only NUM’:

(55) ‘a bit’ + NUM ~ ‘not more than NUM’ > ‘only NUM’

A similar explanation is proposed by Whaley & Li (1998), when they explain the polysemy pattern attested in Oroqen.²¹ One can assume that in case of Ulcha we are dealing with the next step of the same evolutionary process. The restrictive meaning arises in combination with numerals and then it returns to the nominal domain and expands to other parts of speech:

(56) DIM with nouns > DIM with nouns, RSTR with numerals > RSTR with numerals and nouns (and with other PoS)

Another item that is formally similar to *kān* is the particle *=kə* attested in Ulcha and in some other Tungusic languages, cf. the quite detailed description of this particle in Nanai in Avrorin (1961: 115, 268). The particle has some unclear emphatic semantics. Formally, it is an enclitic. It

²¹ Cf. also the somewhat more complex explanation in Alonso de la Fuente (2018: 130):

This suffix has the meaning of diminutive when appears on nouns. But when the same suffix is attached to adjectives, it conveys the function of moderative suffix, i.e. ‘rather...’, and in case it is attached to numerals, then it expresses limitation (a semantic extension of the moderative nuance).

According to this quotation, the meaning ‘only’ attested in numerals develops not directly from the meaning ‘small’ attested in nouns, but via the meaning ‘rather’ attested in adjectives.

is compatible with different word classes. The use of $=kə$ is illustrated in examples (57) and (58). It is evident, that $=kə$ and $=kən$ are different items in modern Ulcha. Some kind of diachronic relation between them is not impossible. However, there are not enough data for a confident reconstruction.

- (57) *xajm* *ŋənu-xə-s=kə* *wən-di-n*
 why go_away-PST-2SG=PTCL say-PRS-3SG
 ‘But why have you gone away?! — he says.’ (oskolskaya&stoynova, oab)

- (58) *xasū* *ańan=kə* *tā-si-xə=nu* *oŋbo-xom-bi* *bi*
 how_many year=PTCL sit-IPFV-PST=Q forget-PST-1SG 1SG
 ‘And how many years was he in prison? ... I’ve forgotten.’ (kalinina_et_al)

11 Similar cases in other Tungusic languages

The case attested in Ulcha is not unique for the family. Similar morphemes with a flexible position are attested in other Tungusic languages, especially in the Northern group.

In Evenki, the restrictive affix *-riktV* is attested. Rudnitskaya (2017) describes it as a derivational suffix. At the same time, she mentions rare occasional uses of this suffix in the external position (after inflection) attested in modern Evenki texts (*ibid.*: 212).

In Even, there is a range of “suffixal particles” with an unstable position (before vs. after inflection), cf. Beloljubskaja (1997) and Malchukov (2008: 372 ff.). These are the “specifying” *-dmar*, the “confirmative” *-nukan*, the “contrastive” *-mal* and also several markers of the restrictive domain: the “restrictive” *-ragda* and the “restrictive-qualifying” *-mak* (‘exactly’).

In Upper Negidal, the morpheme *-mak* is used either before or after inflection depending on its semantics: in the internal position (mostly in spatial contexts, before the locative and allative

case markers), it has the meaning ‘exactly, the very’; in the external position (mostly in temporal expressions), it has the restrictive meaning ‘only’ (N. [VV: please give full first name] Aralova, p.c.). In Lower Negidal, the “particle-suffix” *-kā* with the meaning of exactness ‘exactly, the very’ is attested. It is possible that this morpheme is cognate to the Ulcha *kān*. According to Cincius (1982: 26-28), *-kā* cannot be used in the external position, but it can take two different positions within the word. One is before the case suffix and the other is inside the case suffix: *ǰō-txī* ‘to the house: house-ALL’ ~ *ǰō-t-kā-xī* ‘right to the house: house-ALL-*kā*-ALL’.²²

It is interesting that no restrictive particle or suffix similar to the Ulcha *kān* is attested in its closest sister Nanai. The meaning ‘only’ is expressed by several free lexemes and by a typical enclitic *=rəgdə*, cf. Avrorin (1961: 257-258; 267-268).

12 Conclusions

Thus, the most interesting feature of the restrictive marker *kān* in Ulcha is that it has a variable linear position with respect to its host. In the external use it attaches after inflection, while in the internal use it occupies a position before or between inflectional affixes. Comparative text data from two generations of speakers and data of elicitation show that diachronically internal uses are older and external uses are innovative. Such a direction of evolution goes beyond the externalization-of-inflection scenario, which is well-known and attested in different languages of

²² V. Cincius describes it as the “embedding” of the particle into the case suffix. However, diachronically it may be another process. For some Tungusic spatial forms, probably including the Negidal allative *-txī*, there is evidence that at the earlier stage they consisted of two separate components (**ti + ki*), cf. Sunik (1982: 210 ff.). It is possible that at this stage *-kā* already occupied the position between these two separate markers.

A similar nontrivial case is reported for Tundra Nenets (Samoyedic) in Nikolaeva (2014: 126). The restrictive suffix can be used in nominalizations together with the ablative suffix. This combination has the idiomatic meaning ‘as soon as’. The order of the suffixes is variable: the restrictive suffix either precedes the ablative one, or is inserted into it: *-r’i-xəd°* (RSTR-ABL) ~ *-xər’id°* (RSTR.ABL).

the world. At first glance, it seems to contradict the claim that the externalization-of-inflection process is irreversible, as formulated in Haspelmath (1993).

A probable diachronic source for the limitative *kān* is the derivational diminutive suffix. If so, it is clear why the initial position of *kān* is internal. The semantic shift to the limitative triggers a morphological restructuring. The morpheme gains the post-inflectional position since it is more typical of restrictives. An important motivation for the restructuring is the freedom in semantic scope, which is a specific feature of restrictives. The restrictive meaning is logically compatible with phrases of different sizes and different types, so the more morphosyntactic freedom the marker has the fewer inconsistencies between its semantic scope and linear position appear.

The first step in the process of affix reordering is the possibility to attach to different word classes. First, the morpheme starts to attach to uninflected words, in which it has a final position. Then, this position becomes available for inflected words (nouns) as well.

If the limitative goes back to the diminutive, then the hypothetical path can be reconstructed as follows. Initially, the diminutive suffix is nominal; then, it expands to some other parts of speech (already at the diminutive stage). This expansion is accompanied with minor semantic changes. Having expanded to numerals, the diminutive undergoes a reinterpretation to the restrictive ('little' + NUM > 'no more than' NUM > 'only' NUM). Then the marker acquires a new restrictive meaning with other word classes, including its initial morphological host, i.e. nouns. After that, in nouns the process of affix reordering is begun.

It is possible that the process of affix reordering, which still remains unexpected in the normal case, is forced in the case of Ulcha by the recent intensive contact with Russian and ongoing language shift. In this situation, the morphosyntactic system becomes more variable, unstable, and open to change. At the same time, speakers tend to choose more regular and simple options: in this

particular case, the final position of *kān* for all word classes is preferred to the different positions for different parts of speech.

An interesting point is the mutual position of *kān* and the plural affix. Attested combinations with plural nouns show that in this case the “internal” *kān* occupies not the slot of derivation, but the slot between two inflectional affixes (number and case). It differs from the standard pre-inflectional position of the diminutive and of other derivational markers. It can be considered as an intermediate stage in the process of restructuring, which in this case looks as follows:

(59) *kān*-INFL > INFL1-*kān*-INFL2 > INFL-*kān*

Note, however, that such combinations are rare, and usually the internal position of *kān* does not differ at the surface level from that of derivation.

13 Discussion

The scenario, proposed here for Ulcha, is similar to that described by M. Mithun (2000) for Iroquoian. The affix undergoes a semantic shift and then moves to a more external position, which corresponds better to this semantic type of markers. In the case described by Mithun, however, the shift from a derivational meaning to an inflectional one is attested, and in Ulcha we deal with yet another case. The restrictive meaning belongs neither to meanings that are usually expressed by derivation, nor to those expressed by inflection. Crosslinguistically, the most common way to express it are morphosyntactically more or less autonomous markers (including clitics), but not affixes. Therefore, the reordering process attested in Ulcha breaks the externalization-of-inflection scenario, but not a more general underlying semantic principle. This is the “relevance ordering principle”, formulated by J. Bybee (1985: 33) and explicitly referred to in Haspelmath (1993: 292). According to this principle, in a normal case, the order of morphemes iconically reflects their

semantic ordering: morphemes that are more relevant to the stem (i.e. semantically associated with it more closely) take positions closer to the stem. Both in cases observed in Haspelmath (1993) and in Mithun (2000), and also in the case under discussion, the main motivation for affix reordering is to overcome the inconsistency between the semantics of the morpheme and its morphosyntactic position. In Haspelmath's case, a meaning typical of derivation acquires a derivational position (before inflection) instead of the former post-inflectional one (60a). In Mithun's case, in contrast, a meaning typical of inflection acquires an inflectional position (after derivation) instead of the former derivational position (60b). At the end, in our case one more option is attested: a meaning typical of post-inflectional markers (restrictive) acquires a post-inflectional position instead of its former position before inflection (60c).²³

(60) a) after inflection > before inflection (derivational meanings)

b) before inflection > inflection (inflectional meanings)

c) before inflection > (between inflection) > after inflection (non-affixal meanings, including the restrictive)²⁴

In Ulcha, contrary to Haspelmath's predictions, the former derivational affix becomes a post-inflectional item. At the same time, this process takes place when the affix gets a new meaning, which is no longer typical of derivation and is not typical of inflection either.

My main point is that Type (c) reordering does not differ substantially from the other two types of affix reordering. Above, I demonstrated that it has the same motivation, i.e. a semantic

²³ There are also other diachronic processes going in line with the same ordering principle and going beyond those associated with the opposition between inflection and derivation. For instance, in Plungian & Semionova (2016) a nonstandard mutual order of two inflectional affixes attested in Classical Armenian is considered in the same terms. The form Instr.Pl in Classical Armenian shows the affix order pattern "case suffix" + "number suffix", which is crosslinguistically rare and semantically problematic. The authors hypothesize how this pattern develops in Classical Armenian and how it is replaced by the standard pattern "number suffix" + "case suffix" at later stages.

²⁴ In (60), by the expression "before inflection" I mean "closer to stem than inflection" and vice versa. In a prefixing language the picture would be mirror-symmetric.

shift and, as a result, the need to restore the coherence between form and function, according to Bybee's relevance ordering principle. Now I will show that it also has the same mechanisms as the other two types of affix reordering, cf. (61). It is possible to analyze the process observed in Ulcha in terms of reanalysis and analogy, which were reported as responsible for previously attested affix reordering processes (see Section 1). In forms with no overtly expressed inflectional affixes (i.e. in the nominative form of nouns, as well as in uninflected words) the position of marker *kān* is reanalyzed as enclitical (post-inflectional). After that, *kān* gets the chance to take the post-inflectional position also in the forms with overtly-expressed inflection. The post-inflectional position of *kān* is supported by the analogy with other focus markers which are all enclitics.

(61) reanalysis: stem-*kān* 'stem-DERIVATION' > stem=*kān* 'stem=CLITIC'

analogy: -*kān* || no other derivational affixes with similar meanings > -*kān* || focus

enclitics, including other restrictives

This is not exactly what Hill (2007) and García-Castillero (2013) describe in terms of proportional analogy, since here we do not deal with paradigms; however, substantially the mechanisms regulating reordering are very similar in both cases. As for doubling, mentioned as one of important mechanisms of reordering in Haspelmath (1993), it seems to play no important role in our case.

A separate question is what to call this new reordering Type (c). Haspelmath calls Type (a) reordering "externalization of inflection", focusing on the fact that inflectional markers take a semantically appropriate external position as a result of the reordering process. Focusing on the position of inflection, one could call Type (c) reordering "internalization of inflection", but this term would be misleading, since, as I mentioned before, this type of reordering does not contradict Haspelmath's predictions on affix reordering, but rather supplements them. In a slightly different

way, the terms “externalization” and “internalization” are used e.g. by C. García-Castillero (2018). While describing affix reordering, García-Castillero focuses on the morpheme that triggers the reordering process. Hence, he calls a Type (b) process “externalization” (externalization of the perfectivizer *-ro-* in Old Irish, mentioned in Section 1). At the same time, the situation when the Old Irish morpheme *-(s)a^N-* (the “oblique relative conjunct particle”) undergoes grammaticalization and moves from the word-external position to the word-internal one is referred to as “internalization”. According to this logic, Type (a) reordering can be called “internalization of derivation” (rather than externalization of inflection), Type (b) reordering can be called “externalization of inflection”, and, finally, Type (c) reordering, to which the Ulcha case belongs, can be called “externalization of clitics”.

The marker *kān* was described above in the context of types of morphological restructuring attested in languages of the world. One more way to treat this marker is to consider it from the point of view of grammaticalization theory. The proposed diachronic path from the derivational morpheme to the enclitic or post-inflectional affix seems to be a rare case of “degrammaticalization” which contradicts a general tendency to become more bounded and formally reduced. Norde (2009: 133) distinguishes the following types of degrammaticalization: degammation (a shift from function word to full lexeme of a major word class), deinflectionalization (when an inflectional morpheme moves out of the paradigm), and debonding (a shift from affix or clitic to free morpheme). Degammation is not the case here. Neither is this deinflectionalization. According to the hypothesis proposed, the marker *kān* starts its evolution as a standard derivational affix (with the diminutive meaning). Its intermediate internal position between the plural and case suffixes is difficult to treat as a true inflectional position: in this rare case it is rather wedged in between two inflectional items, but does not occupy a separate stable

obligatory inflectional slot and does not form a paradigm. So, the movement from this position to the position of an enclitic is not deinflectionalization in the same sense as for true inflectional markers (e.g. case or personal affixes).

In Table 9, I test the Ulcha *kān* against a set of parameters of degrammaticalization, proposed in Norde (2009: 130-132) and symmetric to Lehmann's parameters of grammaticalization (1995: 143). Two hypothetical stages of evolution (from the derivational diminutive affix to the internal *kān* and from the internal *kān* to the external) are analyzed separately.

Table 9. Parameters of degrammaticalization and the restrictive *kān*

parameter	stage 1: diminutive <i>kān</i> > restrictive internal <i>kān</i>	stage 2: internal <i>kān</i> > external <i>kān</i>	comment
integrity: resemantization	?	no	stage 1: a probable semantic shift from diminutive to restrictive; however, no development from a meaningless item to a meaningful one, no development from a more abstract meaning to a more concrete
integrity: recategorization	not relevant	not relevant	(relevant only for free words)
integrity: phonological strengthening	yes/no	yes/no	no new phonological substance; stage 1: no loss of the final <i>-n</i> , typical of the diminutive; stage 2: less consistent vowel harmony
paradigmaticity: deparadigmaticization	yes/no	yes/no	noun affix > attaches to other word classes (some of them are available already at stage 1); however, it is not the case of the loss of a true inflectional paradigm
paradigmatic variability: deobligatorification	not relevant	not relevant	is not obligatory at the initial stage
structural scope: scope expansion	yes	no	stage 1: in contrast to the diminutive, the internal <i>kān</i> can take scope over a larger constituent; stage 2: no new options in comparison to the internal <i>kān</i>
bondedness: severance (a decrease in bondedness)	no	yes/no	stage 2: movement from derivational suffix to enclitics, but not to free word
syntagmatic variability: flexibilization	yes/no	yes	cf. competing positions on the numeral vs. on the head noun with the same meaning (it appears when numerals are already available for <i>kān</i> , but within the noun it can occupy the internal position, not only the external)

Table 9 shows that the restrictive *kān* indeed reveals some features of degrammaticalization, though to a small extent. At the same time, the main semantic and structural attributes of

degrammaticalization appear already at the first stage (which is more hypothetical), namely, when the morpheme shifts from diminutive to restrictive. They do not go hand in hand with affix reordering, and they can be considered only as preconditions for this process, not as a part of it.

Moreover, these preconditions remained dormant for a long time: the hypothetical shift from diminutive to restrictive is an old process of a Proto-Tungusic level, while the expansion of external uses of *kān* is a very recent innovation. Presumably, there had been a long stable phase of internal nominal uses only or of internal uses along with rare external ones. The data of other Tungusic languages and Samoyedic languages, which are geographically close, provide more detail to the picture. The marker *kān* in Ulcha belongs to a large class of morphemes with nonstandard and/or variable positional features and similar semantics. It can be roughly defined as a class of focus markers in the sense of König (1991). They all follow the general principle of congruence between form and meaning in a specific way. While meanings typical of derivation tend to fill the slot of derivation, meanings typical of inflection tend to fill the slot of inflection, and meanings typical of free words tend to be expressed by free words; focus meanings tend to fill some kind of intermediate slot of “grammar periphery”. A specific feature of the restrictive and other focus meanings is that they are of a double nature. On one hand, they are abstract and regular enough to move in the direction of true morphological grammatical markers. On the other hand, they are too flexible in semantic scope to be easily morphologized. So, while for other meanings the stage of clitic is often just one step in the grammaticalization process from free word to affix, for this type of marker the position of clitic is rather a final stage with an ideal balance between form and function. Often, the process starts from a free word and stops at the stage of a clitic or post-inflectional affix. In this case we deal with under-grammaticalization. A symmetrical process, however, starting from the position of derivational affix, is also logically possible if in the language

there is a derivational marker with a meaning appropriate for the corresponding semantic shift. This process stops at the same stage of clitic and it does not go further, so this process could be called “under-degrammaticalization”. Both processes break as soon as the marker has reached the balance between form and function, (62).

- (62) under-grammaticalization: free word > clitic > ~~affix~~
 under-degrammaticalization: derivational affix > clitic > ~~free word~~

The second option is probably the case of Northern Tungusic and Northern Samoyedic “suffixal particles”. They can remain a derivation with some nonstandard properties, typical rather of more free items. They also may undergo a more notable decrease in boundedness, however, and this is the case for Ulcha.

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Abbreviations**MISSING ABBREVIATIONS:****AOR****ADVZ****DEF****OBJ****POSS**

1, 2, 3	1, 2, 3 person	ESS	essive
ACC	accusative	EXNEG	negative existential
ALL	allative	FUT	future
AND	andative	GEN	genitive
CAUS	causative	IMP	imperative
CLII	classII	INDEF	indefinite
COMPL	completive	INFL	inflection
CONNEG	connegative	INS	instrumental
CVB	converb	IPFV	imperfective
DAT	dative	ITER	iterative
DES	desiderative	LOC	locative
DIM	diminutive	M	masculine
DISTR	distributive	N	neuter
DS	different subject	NEG	negative
EMPH	emphatic	NOM	nominative
ERG	ergative	NUM	numeral

OBL	oblique	PURP	purposive
PERS	personal	Q	question
PL	plural	QUOT	quotative
PROG	progressive	R	Russian
PROL	prolative	REFL	reflexive
PRON	pronoun	REP	repetitive
PRS	present	RSTR	restrictive
PST	past	SG	singular
PTCL	particle	SIM	simultaneous

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