

Title	Stable Grammatical Marking and Denominalization : A Special Attention to Central Alaskan Yup'ik
Author(s)	Tamura, Yukishige
Citation	言語文化共同研究プロジェクト. 2016, 2015, p. 11-20
Version Type	VoR
URL	https://doi.org/10.18910/57333
rights	
Note	

# The University of Osaka Institutional Knowledge Archive : OUKA

https://ir.library.osaka-u.ac.jp/

The University of Osaka

# Stable Grammatical Marking and Denominalization: A Special Attention to Central Alaskan Yup'ik

# Yuki-Shige Tamura

#### 1. Introduction

It is well known that many languages develop independent-clause markings from original verbs that are regarded as having been nominalized. For instance, the current Japanese finite, or conclusive, form of predicates is thought to have come form the adnominal form in classical Japanese (e.g. Aoki (2012)). And it has been pointed out that in Tibeto-Burman languages, nominalized clauses gave rise to independent clauses that now show the indicative mood (e.g. Matisoff (1972); DeLancy (2012)). Furthermore, Eskimo languages also seem to follow the same type of grammaticalization path as shown in the following quote from Bergsland (1997):

(1) "The Eskimo participles, marked by partly different suffixes in the different languages and dialects, have a close affinity to the indicative. Forms that are participal in one dialect (e.g. West Greenlandic) may be indicative in another (e.g. Alaskan Inupiaq), and within the same dialect participles may be used as independent predicates, possibly with some special force (e.g. exclamation) or as a simple past (see, for example Jacobson 1995:382f, 1988:57)."

This cross-linguistic tendency provides us with a simple but substantive question: why do languages show a path of grammaticalization in which verbs (i.e. predicates) change into nouns with nominalization (nominals), and why do the nominalized verbs return back to "verbal" predicates? As to why this "denominalization" occurs, a definitive theory or principle has yet to be put forth in the literature (Tamura (2014); (2015)). One major reason may be that we have not accumulated enough relevant data for the cross-linguistic generalization; we seem to need further investigation into the form-meaning correlations (i.e. iconic motivations (Haiman (1983)) observed in this grammatical process in which deverbal, nominalized forms are reinterpreted again as a (part of the) predicate.

Based on essential grammatical descriptions on Central Alaskan Yup'ik (an Eskimo-Aleut) by Jacobson (1982; 1995), this research note observes that pronominal marking could serve as a major formal cue to shifting construal from that of nominals to that of predicates. In particular, employing the typological notion of head/independent marking proposed by Nichols (1986), we shall suggest that in terms of pronominal grammatical marking, Central Alaskan Yup'ik (hereafter CAY) shows a "release" from the pressure of stable grammatical pattern in the process of the development of nominalized verbs to predicates. As shown in the next section, CAY displays a grammatical preference for the double-marking strategy. However, we will maintain that the language employs a head-marking strategy in certain limited contexts of subordination (cf. Jacobson (1982)), and the deviation from the standard marking pattern corresponds to a shift in construal of the nominalized

verbs from their nominal construal to predicative construal. Thus, the formal property of pronominal marking can provide an iconic motivation for the denominalization. This research note follows the original insight and descriptions on CAY subordination proposed by Jacobson (1982), and our focus here is directed to the issue of how these grammatical characteristics are captured more in general from a perspective of cognitive-functional linguistics (e.g. Nichols (1986) and Langacker (2008)).

# 2. Morphological Marking Patterns and Stable Grammatical Marking

Nichols (1986) cross-linguistically examines the way grammatical relationships, i.e. asymmetrical dependency relationships observed in various constitutents, are marked morphologically, and she suggests that "languages display a tendency to use one type consistently throughout their grammar" (Nichols (1986:56)). The aim of this section is to review the typology of morphological marking proposed by Nichols (1986), and to assure that CAY utilizes the double marking strategy as its dominant means of expressing grammatical relationships, though the system employed may be considered cross-linguistically rare.

Nichols (1986) indicates that the marking strategies on grammatical relations can be grouped into two major types: (i) dependent-marking patterns and (ii) head-marking patterns. The former is exemplified in (2) and the latter in (3) below, respectively:

# (2) Chechen:

(Nichols 1986:61)

#### (3) Tzutujil:

x-<sup>M</sup>ø-<sup>M</sup>kee-<sup>H</sup>tij tzyaq ch'ooyaa<sup>7</sup>. ASP-3sg.-3pl.-ate clothes rats

'Rats ate the clothes.' (Nichols 1986:61)

Let us pay attention here to the way the argument-verb relationship (a grammatical relation) is coded, in which relationship verbs are regarded as head, and arguments as dependent (the difference is shown by superscripts H and W in the examples above). In Chechen in (2), the information on the grammatical relationship is marked on the nouns, employing case markers such as ergative, dative and nominative; the verb tu:xira bears no overt coding itself about the information of its dependent arguments. On the other hand, in Tzutujil in (3), the grammatical information on arguments is realized on the verb as shown in  $-\phi$ - and -kee-; the nouns, however, show no morphological marking on their relationship to the head of the constituent.

While these two marking patterns are cross-linguistically dominant, Nichols (1986) also touches on two other types of marking strategy, though they are typologically much less familiar: (iii) no morphological marking employed either on heads or dependents, and (iv) double-marking

patterns in which a grammatical relation is marked on both the head and dependent. Example (4) below is an example of double-marking patterns.

(4) Turkish:

ev-<sup>M</sup>in <sup>H</sup>kapɨ-<sup>M</sup>sɨ house-GEN door-3s

'the door of the house.'

(Nichols 1986:65)

In example (4), in which the grammatical constituent of the possessor-possessed relationship is expressed, the grammatical information is morphologically marked both on the dependent noun with -in and on the head noun with -si.

As quoted in the first paragraph of this section, Nichols suggests that languages tend to favor one type of coding strategy throughout their grammar. For instance, Japanese grammar shows a strong preference for the dependent marking patterns as shown in (5) below:

# (5) Japanese:

a. Argument-Predicate Relation:

Boku-<sup>M</sup>ga tomodati-<sup>M</sup>ni hana-<sup>M</sup>o <sup>H</sup>ageta

I-SUB friend-DAT flowers-OBJ gave

'I gave flowers to my friend.'

(Nichols (1986:61) cited from Kuno (1972) with minor modification)

b. Possessor-possessed Relation:

Toro-<sup>M</sup>no <sup>H</sup>hon

Taro-GEN book 'Taro's book'

c. Relativization:

Kore-wa [watakusi-ga <sup>M</sup>ø kaita] <sup>H</sup>hon desu this-TOP I-SUB wrote book is

'This is a book I have written.'

(Nichols (1986:61) cited from Kuno (1972) with minor modification)

d. Verb-Verb Compounding:

Mhasiri-Hdasu

run.ADV-start.CONCLUSIVE

'start to run'

In all the four types of grammatical relation shown in (5), the head of each constituent bears no marking on the relevant grammatical information at all. Thus, following Nichols (1986), Japanese is considered to be a language in which the dependent-marking pattern is dominant. In other words, the dependent style of morphological marking is employed as the most "stable" strategy to indicate grammatical relations observed in formal constituents.

Now, let us consider what type of coding strategy is stable in CAY. As shown in (6) below, CAY shows a strong preference for the double-marking pattern like an example from Turkish in (4) above (I would like to acknowledge Jacobson (1984; 1995) as the primary source of my knowledge

on CAY).

- (6) Central Alaskan Yup'ik<sup>1</sup>:
  - a. Argument-Predicate Relation:

Angute-<sup>M1</sup>m angqaq-<sup>M2</sup>ø <sup>H</sup>kitngig-a-<sup>M1M2</sup>a. man-3s.ERG ball-3s.ABS kick-TRAN.-3s3s

'The man kicked the ball.' (Caan Toopetlook and Oscar Alexie, p.c.)

- b. Possessor-possessed Relation:
  - (i) atkuk-ø 'parka' parka-3s.ABS
  - (ii) elitnauriste-<sup>M</sup>m 

    Hatku-<sup>MH</sup>a 

    teacher-3s.ERG 

    parka-3s3s.ABS 

    parka-3s3p.ABS

    'the teacher's parka' 

    'the teacher's parkas'
  - (iii) elitnauriste-<sup>M</sup>t 

    Hatku-<sup>MH</sup>at 

    teacher-3pl.ERG 

    parka-3pl3s.ABS 

    parka-3pl3pl.ABS

    'the teachers' parka' 

    'the teachers' parkas'

(Caan Toopetlook and Oscar Alexie, p.c.)

- c. Directional/locational Relation:
  - (i) Mcaqu-HmiM (ii) Mcaqu.g-HniM bag-3s.LOC bag.dual-dual.LOC 'in a/the bag' 'in two bags/the two bags'
  - (iii)  $^{M}$ caqu $^{-H}$ ni $^{M}$  ((?) caqu $^{-M}$ t (bag.pl)-nun > caqu-nun) bag-3pl.LOC

'in bags/the bags'

(iv) arna-<sup>H</sup>m<sup>M</sup> 
woman-3s.ERG 
bag-3s3s-LOC.POSS

'in the woman's bag' (Caan Toopetlook and Oscar Alexie, p.c.)

As shown in the three grammatical relations in (6), the relevant grammatical information is marked on both the head and the dependent in each example. It may be true that following Nichols (1986), typologically speaking, languages that extensively rely on the double-marking pattern are rare, but a set of the grammatical facts shown in (6) leads us to judge CAY as one such less-familiar language: the language employs the double-marking pattern as its stable style of grammatical-relation coding.

Before moving onto the topic of CAY nominalization and denominalization, let us briefly review a couple of grammatical characteristics that would be important for our discussion below in section 3. First, as exemplified in (6a) and (6bii), CAY shows a parallel structure between the possessive construction and transitive construction: (i) the possessor of the possessive construction and the A-core argument (Dixon (2010:116)) in the transitive construction are both marked by the ergative case (e.g. -m above), which is traditionally called "relative case" in the Eskimo literature.

And (ii) essentially the same pronominal suffixes are attached to the possessed noun and the transitive verb; for instance, both in the transitive verb *kitngig-a-a* in (6a), and in the possessed noun *akut-a* in (6bii), the last pronominal suffix of *-a* is assumed to indicate that the grammatical relationship marked so involves that of the third-person-singular person to third-person-singular person.

Second, in addition to the grammatical number observed in the contrast between (6ci) and (6cii), the semantic case marking such as aplative, allative or locative also shows a sensitivity to whether its theme is possessed or not: as shown in the contrast between (i) *caqu-mi* 'in the bag' in (6ci), and (ii) *caqu-a-ni* 'in his bag' in (6civ), the possessor-possessed relationship should be explicitly marked in the word (i.e. -a- here) as exemplified in the latter example. In addition, the locative-case allomorphe, -ni rather than the unmarked locative form, -mi, should be employed to convey that relationship, the form of which is shared with the dual and plural locative case-marking as indicated in (6cii) and (6ciii).

# 3. A Release from Stable Grammatical Marking and Denominalization

Keeping in mind that the double marking strategy is dominant in CAY grammar, let us now consider how closely the double marking pattern correlates with CAY's deverbal nominalization, and its "denominalization" leading to the construal as predicates. We shall observe here, following Jacobson's (1982) descriptions on CAY subordination, that what is "locally" observed is a release from the stable double-marking strategy, i.e. losing the property of dependent marking while keeping that of head marking, and we suggest that it is this unstable grammatical marking that functions as the indicator of the reinterpretation of nominalized verbs as a predicate.

Let us start our discussion on nominalization and denominalization with a pair of examples in (7) below, the contrast of which indicates that the nominalized verbs behave in the same way as common nouns, showing a double marking pattern:

(7) a. Pissu-lleq-ø assik-aqa.

hunt-NMNL-3s.ABS like-TRAN.IND.1s3s

'I like hunting.'

(N.B. the transitive marker -a- is phonologically fused with the pronominal suffix)

b. angute-m pissu-llr-a-ø assik-aqa.

man-ERG hunt-NMNL-3s3s-ABS like-TRAN.IND.1s3s

'I like the man's hunting.'

(N.B. the last velar consonant of pissur- and the schwa vowel of -lleq are not

phonologically realized here.) (Caan Toopetlook p.c.)

As shown in (7a), the verb, pissur- 'hunt' is nominalized with a nominalizing suffix for actions, -lleq, and the main verb, assik-aqa, shows the transitive pronominal marking (1s3s), which suggests that pissu-lleq- $\phi$  is regarded as the O core argument of the transitive construction. Furthermore, it is verified whether pissu-lleq- $\phi$  is "fully" nominalized or not by example (7b): the

word can appear in the possessive construction. As exemplified in (6b) above, the dependent noun (i.e. the possessor here) is marked by the ergative case (angute-m), and, being suffixed by the pronominal marker -a, the head noun conveys the person-number information on both the possessor and the possessee ( $pissu-llr-a-\phi$ ). Speaking from a Cognitive Grammar perspective (Langacker (2008)), these two grammatical properties (i) of functioning as a grammatical argument of the main verb, and (ii) of functioning as the head noun of the possessive construction evince a semantic reification of pissur- 'hunt' as a "thing."

This double marking pattern observed in the set of the characteristics of the nominalized verb with the suffix, *-lleq*, however, is not sustained in the following example, in which only the head-marking pattern is utilized, that of dependent-marking being lost:

(8) Tange-llru-aqa angun-ø pissu-llr-a-ni.

see-PAST-TRAN.1s3s man-3s.ABS hunt-NMNL-3s3s-LOC.POSS (or (-3s))

'I saw the man was hunting.' (Caan Toopetlook p.c.)

Let us start by focusing on the formal properties expressed in (8). First, the main verb indicates the transitive relationship as shown in -aqa of tange-llru-aqa. However, its dependent O core argument is not formally marked anywhere against the spirit of double marking: as shown in pissu-llr-a-ni, the locative case -ni (i.e. semantic, adverbial, case marking) is employed here rather than the structural, absolutive case. Second, while pissu-llr-a-ni contains the possessor-possessed pronominal marking -a, no noun that bears the ergative case is shown. Thus, example (8) lacks the characteristics of double marking in either formal property that contributes to the indication of nominalized verbs being fully nominalized.

One may wonder if  $angun-\phi$  in (8) may function as the O core argument for the main verb, because it bears the absolute-case marking, but example (9) below clarifies that  $angun-\phi$  in (8) could not be simply regarded as the O core argument of the main verb:

(9) Tange-llru-aqa angun-ø pissu-lria-ø
see-PAST-TRAN.1s3s man-3s.ABS hunt-PART.INTRA-3s(or (-NMNL-3s.ABS))

'I saw the man who was hunting.' (Caan Toopetlook p.c.)

When the readings of relative-clause counterpart as shown in the English translation of (9) are required in CAY, i.e. in this case, when  $angun-\phi$  is emphasized as a focal participant of the main verb, the participial/adjectival verb mood is generally employed as in (9) (Jacobson (1995) and Caan Toopetlook p.c.). The use of the participial verb mood allows us to consider  $angun-\phi$  as the O core argument of the main verb (tange-llru-aqa): the absolutive noun is modified by the verb in the participial mood ( $pissu-lria-\phi$ ), while the property of double marking with the head verb is kept.

What is expressed in (8), on the other hand, is not such a relative-clause reading, but an event construal: example (8) depicts what event the subject saw rather than who he saw (Caan Toopetlook p.c.). This interpretation leads us to suppose that the nominalized verb is no longer construed as a "reified thing," but it now turns itself into a "relational conceptualization" that requires some event participant(s) (Langacker (2008)). In other words, *pissu-llr-a* should now be

considered as a (part of) predicate that has  $angun-\phi$  as its focal participant. Because S core arguments are marked with the absolutive case in CAY, it would be predictable for  $angun-\phi$  functioning as the solo focal participant for this event construal to show this case assignment. In sum, our suggestion is that the loss of the formal double-marking pattern dominantly utilized in CAY grammar provides an iconic motivation (Haiman (1983)) for this conceptual shift of construal. In other words, it is the unstable pronominal marking that serves the denominalization of nominalized verbs.

Another interesting fact about this "unstable" marking is that CAY moves towards the restoration of its stable double-marking strategy when the conceptual content gets more complicated, i.e. when the transitive construal is required in subordination. And this partial restoration to the double marking pattern further backs up our denominalization analysis above. Consider the following example:

(10) Tange-llru-aqa angute-m pissu-llr-a-ku tuntuvak-ø.
see-PAST-TRAN.1s3s man-3s.ERG hunt-NMNL-3s3s-3s moose-3s.ABS
(or hunt-CON.TRAN-3s)

'I saw the man hunted the moose.' (Caan Toopetlook p.c.)

In example (10), the speaker depicts what he saw as a transitive event: "the man hunted the moose." The changes of formal properties from (8) in intransitive construal are: (i) -ku is employed in place of -ni together with pissu-llr-a, and (ii) the agent is marked with the ergative case while the patient is marked with the absolutive case. Let us consider what these formal properties of (i) and (ii) imply in turn in terms of double marking pattern and denominalization.

The introduction of another pronominal suffix, -ku, makes it clearer that the pronominal suffix -a, the head marking part of double marking strategy, no longer fulfills its original function at all; the suffix, -a is considered to be fossilized as hinted by Jacobson (1982). As described by Jacobson (1982; 1995), the newly introduced suffix, -ku, is generally used together with the verbs in subordinate (i.e. adverbial) verb mood as in (11):

(11) Angute-m arnaq-ø qanrut-a-a [tegganer-mun nunuryug-ni-lu-ku tan'gurraq-ø.]
man-3s.ERG woman-3s.ABS tell-TRAN.3s3s elder-TERM scold.want-say-SUB-3s boy-3s.ABS
Lit. 'The man told the woman, saying the elder wanted to scold the boy.'

(The example from Jacobson (1995:325), and the morphological information and literal translation are mine.)

As shown in the subordinate clause in the square brackets, the subordinate-mood verb, nunuryug-ni-lu- employs the pronominal suffix -ku for its absolutive case argument  $tan'gurraq-\phi$ , indicating that its absolutive (i.e. the O core) argument is 3rd person singular. Note that this pronominal suffix is not portmanteaus like -a (3s3s) above. If we suppose that the same suffix is employed in (10) to show the newly introduced participant  $tuntuvak-\phi$ , then the part of pissu-llr-a should be regarded as forming a single verbal stem that could be further suffixed by some inflection; for instance, -ku, in this case. It seems very unreasonable to suppose that a form that has

a portmanteaus pronominal suffix indicating the person-number information of the two participants further agglutinates another pronominal suffix showing the information of one of the two participants again (see Matthew (1993:213) and Dixon (2010:16) for general non-recursive characteristics of morphological affixation).

The use of the set of absolutive case and ergative case for *pissu-llr-a* in (10), furthermore, backs up our analysis of *pissu-llr-a* being denominalized. Recall here that the CAY grammar employs a parallel structure between the possessor-possessive relationship and the transitive relationship, showing a set of absolutive and ergative case-marking for their dependent arguments. In *angute-m pissu-llr-a-ku tuntuvak-\phi* in (10), the same case marking as in the transitive construction in (6a) above is observed. When it comes to why CAY utilizes the same case marking for both the relationships, one simple observation is that the CAY grammar is sensitive to whether or not a grammatical relationship the speaker employs realizes some asymmetrical relationship between the two participants: the possessor and possessee for the possessive construction, and the subject and object for the transitive construction. Given this assumption, the fact that *pissu-llr-a-ku* accompanies the set of absolutive and ergative case indicates that *pissu-llr-a* gives up its reference as a "rerified thing" as that in (7b), and, as argued in (8) above, it serves a relational function, the property of which is more clearly identified in the transitive construal that require the double marking pattern between *pissu-llr-a-ku* and *tuntuvak-\phi*.

For our analysis so far, the following two notes should be provided. First, further survey is required on the issue of why the terminalis case is employed for the agent marking in the subordinative (i.e. adverbial) verb mood as in (11), while the ergative case in the "complement" subordination as in (10). Second, the locative case -ni is regarded as 3rd-person-singular intransitive marker in CAY prescriptive grammar (Jacobson (1995)) as shown in the parentheses of (8). However, without the analysis based on the notion of grammatical marking as in this research note, we could not provide any reasonable account of the issue of why the possessive pronominal marker -a should be realized before -ni.

Before closing this research note, let us consider how the denominalization observed in CAY is characterized in terms of grammaticalization in general. What we want to emphasize as an important characteristic of CAY grammaticalization is: in CAY, the subordinate clause markings, or subordinate verbal forms, develop in the process of denominalization rather than in that of nominalization. In other words, they are not on the way to "full-fledged" nominals, the properties of verbs being "gradually" lost. For instance, the Japanese complex postposition, *-nituite* 'about' developed out of the verb *-tuku* 'stick to' (Matsumoto (1997)). In this case, the complex postposition is created through the process of weakening its verbal properties as a predicate, and it is "decategorized" from the category of verbs (Matsumoto (1997); Haine and Kuteva (2007)). The same analysis may be applied to such newly-created English prepositions as *concerning* or *regarding*.

As shown above with the notion of double marking strategy, however, we suggest that CAY's

transition from verbs to nominals takes place in one go, and the predicative function of the nominalized forms is produced in the process of losing the nominal properties they have acquired with nominalization as described above. Jacobson (1984; 1995) suggests that the current verb mood markers of CAY have all been derived through nominalization; for instance -lu- in (11), -lria- in (9), and -a- in (6a). While we follow his observations, the account in which he uses the notion of "partial nominalization" might be misleading for non-specialists in Eskimo languages. The term of partial nominalization does not only give us the impression that CAY's nominalization observed in subordinate clauses is yet to be achieved, but it also blurs the directionality of the development of subordinate-clause markers.

#### 4. Conclusion

Basing our analysis on Jacobson's (1982; 1984; 1995) original insight and descriptions on CAY subordination, this research note suggests that pronominal marking could serve as a major formal cue to shifting construal from that of nominals to that of predicates. In particular, employing the typology of head/independent marking proposed by Nichols (1986), we first show that CAY displays the double marking pattern as its dominant grammatical marking, and then we maintain that when its stable marking pattern is broken, i.e. when the head-marking pattern is employed, the shift in construal from full nominals to predicates is triggered. In other words, we argue that the release from the pressure of its dominant double marking pattern provides an iconic motivation for the event construal of nominalized verbs.

# Notes

All the data on CAY except for (11) are courtesy of Caan Toopetlook and Oscar Alexie. I owe my deepest gratitude to Caan Toopetlook for our discussion on the data, and appreciate his great patience with me and my slow understanding of CAY. In addition, I would like to acknowledge the extensive works of Steven A. Jacobson on CAY as the primary source of my knowledge on CAY. I also have to extend my gratitude to Masayoshi Shibatani and Katsunobu Izutsu. Without their suggestions on nominalization based on their deep understanding of languages, this article would not exist in its current form. Finally, my thanks also go to Matthew Carmody for his stylistic improvements of this article. This research is supported by JSPS KAKENHI Grant Number 15K02479.

1. The orthography of CAY employed in this article follows Jacobson (1995).

#### References

Aoki, Hirofumi (2012) "Jyutsubu niokeru meishisestu no kozo to henka (The Structure and Change of Nominal Phrase in Predicate Position)," *The History and Change of Japanese Grammar*, 175-194, Kuroshio, Tokyo.

Bergsland, Kunt (1997) Aleut Grammar: Unangam Tunuganaan Achixaasix. A Descriptive

- Reference Grammar of the Alteutian, Pribilof, and Commander Islands Aleut Language, Alaska Native Language Center, Fairbanks.
- DeLancy, Scott (2011) "Finite structures from clausal nominalization in Tibeto-Burman," *Nominalization in Asian Languages: Diachronic and Typological Perspectives*, edited by Foong Ha Yap, Karen Grunow-Hårsta, and Janick Wrona, 343-359, John Benjamins, Amsterdam.
- Dixon, R. M. W. (2010) *Basic Linguistic Theory: Volume 2, Grammatical Topics*, Oxford University Press, Oxford.
- Haiman, John (1980) "The Iconicity in Grammar: Isomorphism and Motivation," *Language* 56:3, 515-540.
- Haine, Bernd and Tania Kuteva (2007) *The Genesis of Grammar: A Reconstruction*, Oxford University Press, Oxford.
- Jacobson, Steven A. (1982) "Types of Partial Nominalization in Central Yup'ik Eskimo," *Études/Inuit/Studies* 6:2, 51-59.
- Jacobson, Steven A. (1984) Yup'ik Eskimo Dictionary, Alaska Native Language Center, Fairbanks.
- Jacobson, Steven A. (1995) A Practical Grammar of the Central Alaskan Yup'ik Eskimo Language, Alaska Native Language Center, Fairbanks.
- Langacker, Ronald W. (2008) *Cognitive Grammar: A Basic Introduction*, Oxford University Press, Oxford.
- Matisoff, James (1972) "Lahu nominalization, relativization, and genitivization," *Syntax and Semantics* vol. 1, edited by John Kimball, 237-257, Seminar Press, New York.
- Matsumoto, Yo (1998) "Semantic Change in the Grammaticalization of Verbs into Postpositions in Japanese," *Studies in Japanese Grammaticalization: Cognitive and Discourse Perspectives*, ed. by Toshio Ohori, 25-60, Kuroshio, Tokyo.
- Mattews, P.H. (1991) Morphology, Cambridge University Press, Cambridge.
- Nichols, Johanna (1986) "Head-Marking and Dependent-Marking Grammar," *Language* 62:1, 56-119.
- Tamura, Yuki-Shige (2014) "Nominalization and Insubordination in Central Alaskan Yup'ik," a paper presented at International Workshop on Nominalization in the languages of the Americas, (Pontificia Universidad Católica del Perú, August, 28th to 30th).
- Tamura, Yuki-Shige (2015) "A functional account of the development of nominalized verbal forms to finite forms: A special focus on the similarity observed between Eskimo languages and Japanese," a paper presented at 11th Conference of the Association for Linguistic Typology, (University of New Mexico, August 1st to 3rd).