On the Origin of *mu*-Nominals in Manchu¹

JOSÉ ANDRÉS ALONSO DE LA FUENTE

Institute of Linguistics and Translation Studies, Jagiellonian University

This brief contribution discusses the various origins of the Manchu *mu*-nominals. Non-borrowed words with the final segment *mu* can be of two types: lexemic (i.e., the *mu*-element is an indivisible part of the base) or morphemic (i.e., the *mu*-element is an unproductive nominal suffix). It is concluded that morphemic *mu*-nominals are actually irregular outcomes of words containing the well-known, though equally unproductive suffix *-ma₃*. Therefore, there is no need to posit the existence of a suffix *-mu* in Manchu.

《論滿語中 *-mu* 類名詞的起源》

JOSÉ ANDRÉS ALONSO DE LA FUENTE 馮昂寧

克拉科夫市雅蓋隆大學語言學與翻譯研究學院

摘要

本篇短論文旨在列述滿語-*mu*類名詞的不同來源。以「-*mu*」結尾的非外來語詞彙可歸為兩種類別：詞位型（即，「-*mu*」在其中是詞根裏不可分離的一部份）、語素型（即，「-*mu*」在其中充當一箇在清代滿語中已失去能產性的名詞後綴）。本篇論文的結論如下：所有語素型-*mu*類名詞的「-*mu*」詞尾，皆實為「-*ma₃*」後綴（該後綴在清代滿語中雖同樣已失去能產性，但更為滿語學界所熟知）的不規則音變結果。因此，不需要提出滿語裏另外存在後綴「--*mu*」。

1. Introduction

This brief contribution discusses the various origins of the Manchu *mu*-nominals. Non-borrowed words ending with the segment *mu* can be of two types: lexemic (i.e., the *mu*-element is an indivisible part of the base) or morphemic (i.e., the *mu*-element is an

1. I would like to express my acknowledgement to Juha Janhunen, Stefan Georg, Alexander Vovin, and Alexandre Ryzhkov-Shukumine (formerly Eero Talvitie) for a vivid discussion of this topic and Mårten Söderblom Saarela for excellent editorial advice. I must here mention the anonymous reviewer. The usual disclaimers apply.

unproductive nominal suffix). In the end it will be shown that morphemic *mu*-nominals are actually irregular outcomes of words containing the well-known, though equally unproductive suffix *-ma₃*. Consequently, the argument can be made that there is no such a thing as a suffix *-mu* in Manchu.

A rational analysis of all Manchu words traditionally classified as “nouns” or “adjectives” whose last two phonological segments (“sounds”) are /mu/ will be provided. Depending on the author consulted, this sequence /mu/ might be analyzed as either (1) a derivative suffix *-mu*, albeit unproductive, or (2) just the phonological sequence /mu/ with no autonomous morphological properties attached to it. Authors who subscribe to the first kind of analysis belong to the Russian school, beginning in the nineteenth century with Ivan I. Zakharov (1816–1885). The remaining authors, i.e., those whose opinion is to classify *mu* as a simple phonological sequence, do not make any explicit mention of nouns or adjectives ending in the sequence /mu/ (because surely they do not find any reason to do so), therefore they will not be discussed in this paper. For the sake of brevity, in this paper I will refer to all words ending with the sequence *mu* using the umbrella term “*mu*-nominals.”

Before addressing the issue at hand, a couple of words on the impact of Zakharov’s Manchu studies are in order. Ivan Ilich Zakharov (1816–1885) made a sincere attempt at producing a dictionary and grammatical treatise that would improve over the native tradition of lexical and grammatical description of the Manchu language.² Although there is little doubt that Zakharov’s 1879 grammar is far superior to the treatise produced by A. M. Orlov in 1873,³ in the end its success was rather limited, and the shortcomings of Zakharov’s descriptive methodology have been recognized in Russia for years.⁴ The most notorious among them is his reluctance to deal with syntax in any reasonable depth. In addition, certain aspects of his description of Manchu phonology and morphology have similarly been subjected to criticism. In the domain of morphology, Zakharov sometimes goes too far in regard to the analysis of certain expressions. He segments words in smaller units and posits formatives for which there is little internal evidence. In spite of these flaws, Zakharov’s analysis has recently become very popular through the work of L. Gorelova,⁵ which heavily relies on Zakharov’s grammar. The positing of a suffix *-mu* is an instance of this counterproductive tendency of Zakharov—and, by extension, of recent work indebted to his grammar—to overthink the analysis of certain words.

2. Takashi Takekoshi, “Grammatical Descriptions in Manchu Grammar Books from the Qing Dynasty,” *Histoire Epistémologie Langage* 41.1 (2019): 39–55.

3. Vera A. Gorcevskaia, *Ocherk istorii izucheniia tunguso-man’chzhurskix iazykov* (Leningrad: Gosudarstvennoe uchebno-pedagogicheskoe izdatel’stvo ministerstva prosveshcheniia RSFSR, 1959), 23–24.

4. See, for example, Boris K. Pashkov, *Man’chzhurskii iazyk* (Moskva: Izdatel’stvo vostochnoi literatury, 1964), 10.

5. Liliya M. Gorelova, *Manchu Grammar* (Leiden: Brill, 2002).

1.1 Where Does the Blueness of the Blue Wrestler Come From?

The case of Manchu *lamun* vs. *lama* can be used as an illustrative example of the two analytical possibilities mentioned in the previous paragraph. In the very well-known Manchu folktale *Nišan samani bithe*, we are told that one of the secondary characters, Sergudai Fiyanggo, at some point had to face two beings, the Blue Wrestler and the Lion Wrestler. In one version of the folktale, they are called *lamun buku* and *arsulan buku*.⁶ However, in another version, the former is referred to as *lama buku*.⁷ The nominals *lamun* and *lama*, here functioning as modifiers (adjectives) of *buku* “wrestler,” are obviously related to *lamu* “indigo.”⁸ The former contains the floating *-n*, whereas in the latter the original shape of the word is hidden under the effects of progressive vowel assimilation.

There is little doubt that *lamu* “indigo, blue” was initially a borrowing from Chinese, i.e., Early Mandarin 藍 *lam* > Modern Mandarin *lán* “blue,”⁹ which, like many other similar foreign terms, underwent a process of phonological adaptation whereby the dis-preferred final consonants were avoided by attaching an epenthetic vowel. This vowel originally was /i/, but in certain words it was changed to /u/ under the influence of the previous consonant /m/ (as in *giyamun* ‘station’ ← Early Mandarin 站 *tšam* [perhaps via Middle Mongolian *jam* ‘post(office), relay’]¹⁰ > Modern Mandarin *zhàn*) or a preceding

6. Maïia P. Volkova, *Nišan samani bithe (predanie o nishanskoi šamanke)* (Moskva: Izdatel'stvo Vostochnoi Literatury, 1961), 64 (Manchu text), 127 (Russian translation). The English translation of the same passage can be found in Margaret Nowak and Stephen Durrant, *The Tale of the Nišan Shamaness: A Manchu Folk Epic* (Seattle and London: University of Washington Press, 1977), 65–66.

7. Ji Yonghai 季永海 and Zhao Zhizhong 赵志忠, “Nišan saman” 尼山萨满, *Manyu yanjiu* 满语研究 2 (1988), 134.

8. Pentaglot [4004.1].

9. TMS 1.491a. The following conventions will be observed: Core Tungusic = all languages but Jurchenic (i.e., Jurchen, Manchu and Sibe) vs. Proto-Tungusic = Core Tungusic + Jurchenic. Pan-Tungusic refers to elements present in all Tungusic languages irrespective of their origin, be that either via borrowing or direct inheritance from the parent language. Unless otherwise stated, reconstructions are based on the materials gathered in Vera I. Cincius *Sravnitel'nyi slovar' tunguso-man'chzhurskix iazykov*, 2 vols. (Leningrad: Izdatel'stvo Nauka, 1975–77) and Gerhard Doerfer, *Etymologisches-ethnologisches Wörterbuch tungusischer Dialekte (vornehmlich der Mandschurei)* (Hildesheim, Zürich, and New York: Georg Olms, 2004), with the particularity that Doerfer's <h> is here replaced with “x.” This paper contains no new reconstructions, and those mentioned, especially in the domain of verb morphology, have been amply discussed by Johannes Benzing, *Die tungusischen Sprachen: Versuch einer vergleichenden Grammatik* (Wiesbaden: Harrassowitz, 1956) or Orest P. Sunik, *Glagol v tunguso-man'chzhurskix iazykax* (Leningrad: Izdatel'stvo akademii nauk SSSR, 1962). Jurchen data comes from Gisaburo Kiyose, *A Study of the Jurchen Language and Script* (Kyoto: Horitsubunka-sha, 1977), Jin Qicong 金启葆, *Nüzhen wen cidian* 女真文辞典 (Beijing: Wenwu chubanshe, 1984), and Daniel Kane, *The Sino-Jurchen Vocabulary of the Bureau of Interpreters* (Bloomington, Indiana: Indiana University [Uralic and Altaic Series], 1989). Early Mandarin forms come from Edwin G. Pulleyblank, *Lexicon of Reconstructed Pronunciation in Early Middle Chinese, Late Middle Chinese and Early Mandarin* (Vancouver: University of British Columbia Press, 1991). < “evolved from,” < “borrowed from,” < “derived from.” Morphemes subjected to harmonic vowel rules are followed by a subscript number indicating the number of variants, e.g., *-la₃* = *-la* ~ *-le* ~ *-lo*. Capital letter indicates “subject to vowel harmony,” without going into the details regarding the number and quality of the harmonic allomorphs. “+” follows nominal bases that rarely appear bare. Note that “ə” in Sibe is a reduced vowel, but in the remaining languages it is a full mid central vowel (Manchu orthography <e>). Russian symbols like <ü> or <ь> here appear as <ü> or <ÿ>, etc. I adopt the Indo-Europeanist convention of leaving technical definitions in European languages untranslated.

10. See, e.g., Alexander Vovin, “Once again on the Tabgač Language,” *Mongolian Studies* 29 (2007), 195.

vowel /u/ (as in *gurun* “state” ← Mongolic *gür “universal” or Early Mandarin 國 *kwək* > Modern Mandarin *guó* “country”).¹¹

Therefore, *lamu* does not contain a suffix of the shape *-mu*, but rather a final sequence made of (1) the bilabial nasal *-m*, followed by (2) the epenthetic vowel (which, we can hypothetically assume, was /i/, as this is the defective epenthetic vowel in Manchu and other Tungusic languages) that later assimilated to the previous consonant resulting in *-u*. The optionality of the floating *-n* can be observed in the variants *lamun* vs. *lamu* and *lama*. The latter form, which is preserved in the second version of the Manchu folktale, shows progressive vowel assimilation.

There are plenty of parallel examples even beyond the domain of *mu*-nominals that show that the processes occurring in the pair *lama* ~ *lamun* conformed to a rather common pattern, e.g., *como* ~ *co(o)man* “goblet, large cup for wine” (< *coma) ← Mong. *čomo* “id.”¹² where the first variant shows no floating *-n* and progressive vowel assimilation, or ++*jalimi*¹³ ~ *jalmin* “knotweed” (the latter with *Mittelsilbenschwund*, cf. Eastern Ewenki *jalikta* “hawthorn,” with the collective suffix *-kta*, etc.), *komo* ~ ++*komon* “a felt blanket placed under a camel’s saddle” ← Mong. *qom* “id.”¹⁴ ++*silemi* ~ *silemin* “tough, tenacious, durable, lasting, reluctant to work, sluggish.” or Jurchen ᡩᡠᡤᡤᡠᡳ ~ Manchu *šumin* “deep,” all of them showing presence or absence of the floating *-n*.

The examples enumerated in the previous paragraph illustrate the fact that a proper analysis of *mu*-nominals (or of any other kind of nominal formations in Manchu) would require the researcher to consider that (1) forms with final *-n* could in theory be interpreted as having floating *-n* and (2) forms without final *-n* where vowels are identical (*como*, *lama*, *komo*, etc.) could reflect secondary vocalism. Put differently, there is always room to speculate that words like *lama* and *lamun* do not reflect the original shape of the word, but are secondary formations. In the particular case of *lama* and *lamun*, we know it is certainly so because (1) the form *lamu* is documented independently and (2) we know the history of the word to some extent (mainly via comparative data).

Admittedly, not all cases are as complicated as *lamu*. In section 2 the data is presented and arranged according to an aprioristic etymological analysis whereby words can be divided in three groups: lexemic, morphemic, and unclear. In order to present

11. Juha Janhunen, “The Tungusic Languages: A History of Contacts,” in *Current Trends in Altaic Linguistics. A Festschrift for Professor Emeritus Seong Baeg-in on his 80th Birthday*, ed. Kim Juwon and Ko Dongho (Seoul: Altaic Society of Korean, 2013), 41. As for Mongolian *gürin* “country, state, nation,” it belongs to a very recent layer of Manchu loanwords. (William Rozycki, *Mongol Elements in Manchu* [Bloomington, Indiana: Indiana University, Research Institute for Inner Asian Studies, 1994], 93. Henceforth “MEM.”)

12. MEM 50. Note that ancient loanwords, such as this one, did not admit the vowel harmonic sequence /o-o/ and were adapted as /o-a/.

13. Hauer’s label “obsolete” is indicated by the symbol ++, e.g., ++*jalimi* ~ *jalmin*, meaning that *jalimi* is in theory older than *jalmin*, which in this case happens to be true. (Although it is not always so: note the lack of consistency when the only difference is the presence or absence of floating *-n*.)

14. MEM 142.

and analyze a homogeneous corpus, this contribution will focus only on the descriptive status and historical pathways of the final segment /mu/ in words for which no floating -*n* variant exists (see below for more details). In Section 3 the data is analyzed from a different perspective. It will argue that in Manchu there is no need to postulate the existence of a suffix -*mu*. There seems to be a far more economic explanation for virtually all the instances where the sequence /mu/ is documented: the vowel /u/ is secondary, being sometimes the result of the labialization of the epenthetic vowel /i/, or the direct product of Mongolian borrowing.

2. The Data

In what follows I will restrict myself to four lexicographic tools: for Literary Manchu, the *Pentaglot Dictionary* (*Wuti Qingwen jian* 五體清文鑒, an authoritative and imperially sponsored Qing-period multilingual dictionary finished in the 1780s that includes Manchu lexemes and their translations into Tibetan, Mongolian, Chagatai, and Chinese)¹⁵ and three very well-known compilations by Haneda, Hauer, and Norman.¹⁶ For Jurchen, only the studies by Kiyose, Jin, and Kane have been perused.¹⁷ The value of data from modern varieties like for example Sibe¹⁸ and Spoken Manchu¹⁹ is somewhat restricted because of vowel reduction (sometimes followed by apocope). The interested reader can find all the data discussed in the following sections in these references.

Neither portmanteau neologisms²⁰ nor words for which the alternation Ø vs. “floating -*n*” is not documented will be discussed, unless this variant is attested in another lect (for example in Jurchen †fumu ~ †fumo vs. Manchu *femen* “lip(s),” etc.).

Generally speaking, non-borrowed *mu*-nominals²¹ can be divided into two big sub-

15. Oliver Corff et al., *Auf kaiserlichen Befehl erstelltes Wörterbuch des Manjurischen in fünf Sprachen*, 2 vols. (Wiesbaden: Harrassowitz, 2013).

16. Haneda Tōru 羽田亨, *Man-Wa jiten* 滿和辭典 (Tōkyō: Kokusho kankōkai, 1972, 1st ed. 1937), Erich Hauer, *Handwörterbuch der Mandschusprache* (Wiesbaden: Harrassowitz, 2007, 1st ed. 1952–55), and Jerry Norman, *A Comprehensive Manchu-English Dictionary* (Cambridge, Mass.: Harvard University Asia Center, 2013).

17. Kiyose, *A Study of the Jurchen Language and Script*; Jin, *Niizhen wen cidian*; Kane, *The Sino-Jurchen Vocabulary of the Bureau of Interpreters*.

18. See, for example, Yamamoto Kengo 山本謙吾, *Manshū-go kōgo kiso goi shū* 満州語口語基礎語彙集 (Tōkyō: Tōkyō gaikokugo daigaku, 1969).

19. See, for example, Enhebatu 恩和巴图, *Manyu kouyu yanjiu* 满语口语研究 (Huhehaote: Neimenggu daxue chubanshe, 1995).

20. For example: *aisimu* (= *aisin* + *namu*) in the collocation *aisimu ilha* “Goldlaternenblume” (Chin. 金燈花 “honeysuckle,” lit. “golden lamp flower”), *bongsimu* (= *bongko* + *yangsimu*) in the collocation *bongsimu niyehe* “one of the names of the wild duck,” *irmu* (= *irgece* + *mušu*) “a name for the quail,” *kinamu* (= *kina* + *mu*) in the collocation *kinamu ilha* “henna (*Lawsonia inermis*, Chin. 指甲花),” *tuwerimu* (= *tuweri* + *kinamu*) in the collocation *tuwerimu ilha* “the name of a fragrant red flower with long thorny stems and a yellow center (Chin. 冬瑰花).”

21. Chinese loanwords: *limu* “Department Police-master and Jail Warden” ← Chin. 吏目 *lìmù*, *sumu* “Sappanholz des Baumes *Caesalpinia sappan*” ← Chin. 蘇木 *sūmù* “sappan wood,” Jurchen †taumu (~ †toumu, see Jin 1984: 249) “headman” ← Chin. 頭目 *tóumù* “head of a gang; chieftain,” Manchu *timu* “topic, theme” ← Chin. 題目 *tímù* “theme.”

groups: lexemic and morphemic. In the first group I include words in which base and the final sequence *mu* are apparently indivisible. To the morphemic group belong those words in which base and the final sequence *mu* can be unambiguously segmented, therefore it is theoretically possible to tentatively identify a suffix *-mu*.

A third group consists of unclear cases.

2.1 Lexemic Cases

- (1) Jurchen *†amu* “back.” Related to the spatial noun in such forms like Manchu *amasi* “backward, toward the back,” *amala* “behind; after,” which may be compared to Jurchen *†amula* (∼ *†amulu*²²) “back, behind,” where *-la* is a fossilized old locative case, cf. Sibe *aməla*, Spoken Manchu *aamul* ∼ *aamɣl(u)* (the latter variant could be derived from **amu*), etc. All these formations go back to Proto-Tungusic **xama* + “behind, back.”²³
- (2) *amu* “the pancreas of a pig,” cf. Western Ewen *aami* “diaphragm,” Oroch *aami* “spleen.”²⁴
- (3) *damu* “only, but” (Sibe *damə*). Southern Ewenki *daamuktə* “maybe, perhaps,” Kili *damü* “only, just” ← Jurchenic.²⁵ It is very likely that this is the same as *dang* “only, just” (← Mong. *dang* “id.” ← Chin. 但 *dàn* “but; yet, still”²⁶) remodelled under the influence of *gemu*.
- (4) *ememu* “some” ← *emu* “one” plus *emu* “one,” a transparent calque of Mongolian *nigenigen*, cf. *nige/n* “one.”
- (5) *emu* “one” (Sibe *emə*, Spoken Manchu *uum*) < Proto-Tungusic **ömöö/n* ∼ **əməö/n* “id.”²⁷
- (6) *femen* “lip(s),” Jurchen *†fumu* ∼ *†fumo* (Sibe *femən*, Spoken Manchu *fuuma* ∼ *fuum*) < Proto-Tungusic **pəmön* “id.”²⁸ Regressive assimilation in Jurchen (and perhaps Spoken Manchu), but progressive in Manchu (and Sibe).
- (7) *hamu* “excrement, faeces” < Proto-Tungusic **amoo/n*.²⁹ It has been suggested that initial *h-* in Manchu is due to taboo.³⁰
- (8) *jamu* “the name of a sweet red fruit; pink, peach-colored; Daurian rose

22. Jin, *Nüzhen wen cidian*, 149.

23. TMS 1.35–36.

24. TMS 1.37a, Valentin A. Avrorin and Elena P. Lebedeva, *Orochskie teksty i slovar'* (Leningrad: Nauka, 1978), 163a.

25. TMS 1.195–196.

26. MEM 55, Haneda, *Man-Wa jiten*, 81a.

27. TMS 2.270–272.

28. TMS 2.365b.

29. TMS 1.40a.

30. See, for example, Michael Knüppel, *Sprachtabus in tungusischen Sprachen und Dialekten: Am Beispiel von S. M. Širokogorovs “Tungus Dictionary”* (Wiesbaden: Harrassowitz, 2012), 29–30.

(*Rosa davurica*),” cf. Northern Udihe *jamuktə* “rosehip,” with collective suffix *-ktə*³¹ ← Mong. *jamur* “fruit of sweet briar (eglantine).”³² Note that in theory Manchu and Northern Udihe could go back to Proto-Tungusic *jamo-g (with the original collective *-g later extended to *-kta), which resembles very much Mong. *jamug* ~ *jamag* “water weed, sludge.”

- (9) *lamu* “indigo” alongside *lamun* ~ *lama* “blue” < Proto-Tungusic *laamo “ocean, lake (Baikal).”³³ Lexical doublet of (10).
 (10) *namu* “ocean, sea” < Proto-Tungusic *laamo “ocean, lake (Baikal).”³⁴ Lexical doublet of (9).

2.2 Morphemic Cases

- (11) *amu* “sleep” (Spoken Manchu *aam*), from Proto-Tungusic *au- ~ *aw- “to sleep,”³⁵ cf. Manchu *amha-* “to sleep,” originally an old causative formation from *amV-ka- (= Uilta *apkan-*, or Ulcha & Nanay *akpan-* via metathesis). Manchu *amu* “sleep” is the etymological equivalent of Literary Ewenki *aamii* (alongside *aamə*), Arman & Oroch & Negidal *aami*, Ulcha *ami* “sleep,” etc. < *au-mi. Because of the opacity of Manchu, *amu*, speakers replaced it with the old causative *amha-* and used it for regular derivations, e.g., *amha-ca-* “to sleep together” or *amha-bu-* “to put to sleep” (the new causative), etc.
 (12) *cekemu* “Japanese satin, velveteen” (also in collocations like *hoto cekemu* “flowery Japanese satin” or *funiyehe den cekemu* “a kind of velvet with a thick surface”). Unclear etymology, cf. *ceke* “a short jacket made of wild animal pelts.” Southern Tungusic ← Jurchenic.³⁶ Interestingly enough, forms like *cəkə* “velvet” and *cəkəmə* “(made) of velvet,” both in Ulcha, Nanay and Oroch, unambiguously show that originally Manchu semantics were less specialized.
 (13) *enggemu* “saddle,” Jurchen †*anggemu* ~ †*engemer* (Sibe *eməŋə*, Spoken Manchu *uunumungu*). The borrowing from Mong. *emegel* “saddle” is to some degree obvious in Sibe and Spoken Manchu (and in some other Southern Tungusic languages), where the integrity of the Mong. form is better preserved. In Jurchen and Manchu, contamination with

31. TMS 1.247–248.

32. MEM 120.

33. TMS 1.490–491.

34. TMS 1.490–491.

35. TMS 1.1–3, Alexandre Ryzhkov-Shukumine, “Long Vowels in Proto-Tungusic,” *International Journal of Eurasian Linguistics* 2 (2020): 74.

36. TMS 1.419b.

engge-le- “to jut out, project, rise, lean forward”³⁷ may have triggered metathesis.

An alternative explanation, suggested to me by Janhunen (p.c.), would have Mong. *emege-* borrowed in Jurchenic, where it underwent first *Mittel-silbenschwund* and then regressive assimilation (i.e., **emege-* > **emge-* > *engge-*). In this scenario, the Sibe and Spoken Manchu forms are the ones with metathesis.

- (14) *galamu* “reel used in weaving.” This word is very likely connected to *gala* “hand; one of the sides of the encirclement in a battue; arm’s length (a measure)” < Proto-Tungusic **ḡaalə* “hand”³⁸ or *gala-* “to clear up.” The derivation lying behind Eastern Ewenki *ḡaaləm* “hand-ache” (and Literary Ewen *ḡaalümül-* “to feel hand-ache”), while potentially identical to Manchu *galamu* from the formal viewpoint, semantically does not make sense.
- (15) *gemu* “all, in every case; even,” Jurchen †*gemu(r)* “altogether” (Sibe *gumə*, Spoken Manchu *gum*). Uilta *gəm* “id.” ← Jurchenic.³⁹ Regressive assimilation in Sibe followed by vowel reduction (i.e., *gumə* < **gumu* < *gemu*).
- (16) *ildamu* “elegant, refined, quick-witted, bright” ⇐ *ilda-* “to be quick-witted, agile, bright.” Unclear etymology, although it may be related to Literary Ewenki *ilga* “clever, skillful,”⁴⁰ which would imply that Jurchenic innovated by virtue of the assimilation *ld* < **lg*.
- (17) *nemu* “mineral deposit, ore, mine.” Unclear etymology, perhaps related to *neme-* “to add, increase; to remove the husks from the grain” (← Mong. *neme-* “id.”⁴¹) or, alongside other Manchu expressions like *nemeri* “tender, young,” to Proto-Tungusic **ñəmō-mə* “soft, weak, loose.”⁴²
- (18) *oromu* ~ *oromo* “cream”⁴³ ⇐ *oro-* “to form a layer on the surface (said of gruel or other liquid), to rise to the surface (said of fat or cream in a liquid)” (Sibe *orəmə*, Spoken Manchu *oorma*). Mong. *örime* “scum on boiled milk” is usually mentioned as a possible source of contamination.⁴⁴ It is very unlikely that the Mong. word was borrowed in its entirety given the irregularity of the loanword phonology, cf. Manchu

37. MEM 70.

38. TMS 1.656–657.

39. Larisa V. Ozolinia, *Oroksko-russkii slovar’* (Novosibirsk: Izdatel’stvo SO RAN, 2001), 74a.

40. Boris V. Boldyrev, *Ėvenkiisko-russkii slovar’*, 2 vols. (Novosibirsk: Izdatel’stvo SO RAN, 2000), 1.236b.

41. MEM 162.

42. TMS 1.652–653.

43. This form is only mentioned in Zakharov (*Polnyi man’chzhursko-russkii slovar’*, 133a), where it is claimed that *oromo* is older than *oromu*.

44. MEM 174.

eruwen “drill, auger” ← Mong. *örüm* “id.”⁴⁵ for an example of regular sound correspondences.

- (19) ⁺⁺*selemu* ~ *seleme* “a kind of dagger” ⇐ *sele* “iron,” from Proto-Tungusic **sələ* “id.”⁴⁶ The convoluted history of this cultural term is irrelevant for current purposes.⁴⁷

2.3 Unclear Cases

The following words I only list for the sake of completeness, but they will not be the object of examination due to their etymological obscurity.

- (20) *eremu* “yellow artemisia, sweet wormwood (*Artemisia annua*).” Perhaps portmanteau neologism⁴⁸ or some obscure connection to *ere-* “to hope; to peel birch bark off a tree.”
- (21) *Jakūmu* “einer der 66 Mandschustämme zu Beginn der Dynastie”
- (22) Jurchen *†mamu* “common.” Perhaps the same word that in Manchu is documented only in the collocation *mamun akū* “listless, dejected, depressed, without any enthusiasm left.”
- (23) *sudamu* “Hof um die Sonne.” There may be a tenuous semantic link with *sudala* “vein, artery, blood vessel” and *sudan* “the hair of the temples of a woman; curly hair.”
- (24) *suyamu* “a reed wrapped around the iron needle of a spinning wheel”
- (25) *yangsimu*, in the collocation *yangsimu niyehe* “sheldrake (*Tadorna tadorna*, a kind of duck),” also “river in the province of Shenyang or the borderland along this river (also called *Yangsimu jase* or *Janggūtai jase*).”⁴⁹ Perhaps portmanteau neologism.⁵⁰
- (26) Jurchen *†šumu* “sparrow hawk.” Unclear etymology.

3. Analysis: Plea for a Unifying Interpretation

Words in 2.1 show that lexemic *mu*-nominals can be (a) the regular historical continuation of Proto-Tungusic *m*-nominals with *ö* or *o* in the second syllable, or (b) the result of

45. MEM 72.

46. TMS 2.140–141.

47. See an excellent summary with bibliography in Volker Rybatzki, “Die tungusische Metallterminologie,” *Studia Etymologica Cracoviensia* 7 (2002), 113–16.

48. Pentaglot [4005.1].

49. Hauer, *Handwörterbuch der Mandschusprache*, 525a.

50. Pentaglot [4151.3].

vowel labialization when a non-labial vowel follows /m/,⁵¹ e.g., Jurchen ᠳᠠᠮᠤ, which can be easily traced back to *xama +.

Words in 2.2 do not lend themselves to such a straightforward analysis. Manchu *amu* and *selemu* show that *u* can be secondary via labialization. Interestingly enough, these words exhibit regular derivation by two different suffixes:

(1) We can make the assumption that Manchu *amu* comes from *a(m)-me. The singular imperfect converb *-mii was used to create verbal nouns already in the parent language, i.e., Literary Ewenki *aamii*, etc. < Core Tungusic *aa-mii < Proto-Tungusic *aa-mə-i, which means lit. “sleeping.” It is an undisputed fact that the Manchu imperfect converb *-me* is cognate with Core Tungusic *-mii via *-mə(ə) < *-mə-i (cf. Jurchen ᠳᠠᠮᠤᠮᠤᠮᠤ).

(2) In Manchu (Jurchenic), the unproductive suffix *-ma₃* can be attached to both nouns and verbs to create various nominal and verbal formations.⁵² This suffix goes back to Proto-Tungusic *-mA.⁵³ In origin it was a deverbal suffix which at some point was used to create adjectives and adverbs,⁵⁴ e.g., Ewenki *omḡomo* “forgetful” ⇐ *omḡo-* “to forget,” whence *altama* “golden” ⇐ *altan* “gold,” etc. To this group belong words like Manchu *wajima* “end(ing)” ⇐ *waji-* “to finish” and *okdomo* “one of two leather straps on the left side of a saddle that are put through the clasps of the saddle girth (belly-strap)” ⇐ *okdo-* “to meet halfway.” Judging from the existence of formations like *nika-ra-me* “(said) in Chinese” ⇐ *nika-ra-* “to speak Chinese” ⇐ *nikan* “Chinese” or *aniya-la-me* “for an entire year, a whole year” ⇐ *aniya* “year.” which are derived by means of the suffixes *-ra₃-* and *-la₃-*, and have identical parallels in other Tungusic languages, cf. Literary Ewenki *bagdama* “white” vs. *bagda-la-ma* “(turned) white” ⇐ *bagda* “white,”⁵⁵ one can suspect that the formative *-mə-i discussed above, which is behind the origin of the imperfect converb *-me* in Manchu, and this derivative suffix *-mA merged at some point, making them undistinguishable from a synchronic standpoint.⁵⁶

51. Vowel labialization occurs also after /k g p b ŋ/. It is an irregular sound change documented across Tungusic, but its occurrence is especially pervasive in Amurian Tungusic and Jurchenic. It can be observed in inherited vocabulary, e.g., Ewenki (only in Titov’s dictionary) *koomba*, Negidal *kombo*, Ulcha *kombo* ~ *kombu*, Uilta *kombo* “scoop, grab, ladle” < Core Tungusic *koomba “id.” (TMS 1.408b) or Literary Ewenki *tookii*, Solon *tooxi*, but Manchu *toho*, Ulcha *too* (< “Santan” 1801 ᠳᠤᠮᠤᠮᠤᠮᠤ) < Proto-Tungusic *tookii “id.” (TMS 2.191–192, Ikegami Jirō 池上次郎, “Santan kotoba shū” サンタンことば集, *Hoppō bunka kenkyū* 北方文化研究 2 [1967], 82), and in borrowings, e.g., Negidal *xangu* “carp,” Oroch & Ulcha *xango*, Kili *xatku* “carp” (TMS 1.462a) ← Pan-Ghilyak *kʰarji* “codling” or Eastern Ewenki *laamus* “(southern, warm or easterly) wind,” Literary Ewen *namūs* “snow” < Northern Tungusic *laamus < *laamis ← Pan-Ghilyak *lams* “easterly wind” (TMS 1.491a). For the deep connection of this word to the one meaning “ocean” mentioned above, see Juha Janhunen, “Liao: A Manchurian Hydronym and its Ethnohistorical Context,” *Studia Etymologica Cracoviensia* 13 (2008), 97–100.

52. For the same suffix, see Valentin A. Avrorin, *Grammatika man’chzhurskogo pis’mennogo iazyka* (Sankt-Peterburg: Nauka, 2000), 129. Avrorin only provides the harmonic variants *-ma* and *-me*. The exclusion of *-mo* may be due to the somewhat opaque semantic connection between *okdo-* and *okdomo* discussed above.

53. Boris V. Boldyrev, *Kategoriia kosvennoi prinadlezhnosti v tunguso-man’chzhurskix iazykax* (Moskva: Nauka, 1976), 76–78.

54. See, for example, Boris V. Boldyrev, *Morfologija evenkiiskogo iazyka* (Novosibirsk: Nauka, 2007), 361.

55. Avrorin, *Grammatika man’chzhurskogo pis’mennogo iazyka*, 129.

56. This explains why an anonymous reviewer suggests that *-me* in *nikarame* can only be the regular imperfective converb

The main implication of all this is that morphemic *mu*-nominals in Manchu in theory can have two different origins. We can reach this conclusion only because we have extra-Jurchenic material (e.g., Literary Ewenki *aamii*) and Manchu variants (e.g., *seleme*). What can we do when such an evidence is not readily available? Manchu *ildamu* is a transparent derivate of *ilda-*, but we do not have extra-Jurchenic material to look at, nor variants within the Jurchenic linguistic domain. Would it be possible to suggest that there is a Manchu suffix of the shape *-mu*, which semantically would be almost identical to **-mA*? If we did not have access to Jurchen or Core Tungusic materials, the correct etymology of Manchu *femen* would be as obscure as the etymology of Manchu *niyamala* /*ñamala*/ “moss found on trees and stones” without extra-Jurchenic data (< **ñamolī*, with paragogic vowel, from **ñamol* “swamp moss,” extensively documented in Core Tungusic, where the original base was enlarged with the attachment of the collective suffix **-sa*, e.g., Literary Ewenki *ñamulla*, Literary Ewen *ñamülřü*, Literary Nanay *ñamolta*, etc.).⁵⁷

I believe that it is far more satisfactory (and economical) to make the assumption that in certain marginal expressions the vowel of the derivational suffix **-mA* underwent labialization producing the attested *mu*-variants, i.e., *cekemu* < **cekeme* (this form would account for the words in Southern Tungusic), *enggemu* < **enggeme*, *galamu* < **galama*, *ildamu* < **ildama*, and *nemu* < **neme*. It is better to assume an intermediate formation based on well-attested internal mechanisms than to claim the existence of a suffix for which there is no independent evidence.

This interpretation gains strength if we take into account a group of words, borrowings included, which show that there is a strong tendency to labialize final, non-labial vowels. The final vowel affected by vowel labialization can originally be (1) the (pan-Tungusic) paragogic vowel *-i* attached to avoid certain consonants (esp. *-m*, *-r*, *-l*) in final position,⁵⁸ or (2) any other vowel, e.g., *cengme* ~ *cengmu* “coarse Tibetan wool” ← Mong. *cengme* ~ *cengbe* “woolen cloth,”⁵⁹ *erdemu* ← Mong. *erdem*, *kalimu* “whale” < **kalimi* ← Ghilyak *qalm* “id.”⁶⁰ (with middle *-i-* perhaps due to contamination with

-me. This simplistic view does not account for the uncanny formal and functional resemblance that words like Manchu *nikarame* or *aniyalame* clearly show in comparison with similar formations in other Tungusic languages like for example Ewenki *bagdalama* “(turned) white.” No one would argue that *-ma* in Ewenki *bagdalama* is a converb. The same holds true for *-me* in Manchu *nikarame* even though it formally looks exactly the same as the converb *-me*. Whether **-mā-i* and **-mA* are connected is something that cannot be rejected out of hand, but it is irrelevant for present purposes.

57. TMS 1.632–633.

58. Words with final /m/ are all clearly of Mongolic or any other foreign origin: *bidarum* “coral” ← Mong. ← Sanskrit *vidruma* “id.” (Hauer, *Handwörterbuch der Mandschusprache*, 49a), *Jerim* “mongolischer Stammesverband der Inneren Mongolei, umfassend die Stämme Korcin, Jalait, turbet and Gorlos, zusammen 10 Banner” (Hauer, *Handwörterbuch der Mandschusprache*, 279b), *sairim* “a river in Xinjiang” (398a), *tulum* “a cowhide or sheepskin filled with air that is used to support the body across a river” ← Mong. *tulum* “whole skin used as a vessel for liquids; leather bag.” (481b). The latter word and *tulume* “a belt made of lacquered rattan and filled with air to aid a person crossing a river” are a lexical doublet (MEM 212).

59. MEM 46.

60. MEM 130, Gerhard Doerfer, “Terms for Aquatic Animals in the Wu T’i Ch’ing Wên Chien,” in *Proceedings of the Inter-*

kali- “to soar, glide”), *kemu(n)* < **kemi* ← Mong. *kem* “measure, size,” cf. Manchu *kem-ne-* “to measure, weigh,”⁶¹ *keremu* “rampart, battlement, citadel” < **keremi* ← Mong. *kerem*,⁶² etc.

Needless to say, instead of the paragogic vowel *-i* it could be argued that Mong. *-m* in these borrowings was adapted by means of the suffix *-ma₃*, whose vowel afterwards labialized, as occurred with putative words like *seleme* ~ *selemu*.

Also, there are exceptions to this rule, e.g., *kijimi* “trempang, sea slug” ← Mong. *kijim* “id.”⁶³ where the presence of other *i*-vowels may have blocked vowel labialization, and special cases like *omi* in the collocation *omi sangga* “a hole (*sangga*) used by rats and squirrels for storing food” which could result, via haplology, from **omimi* < **omime* < *omi-* “to drink, to take (medicine).”

It goes without saying that we can find words ending in *-mi* showing no trace whatsoever of *mu*-variants, e.g., *akūmi* “clothes made of fish skin,” *anami* “a grown Manchurian moose,” *asumi* “Falte des aufgeschürzten Kleides,” *bohomi* “a winnowing fan for gaoliang and sesame; the hulls of their seeds,” *dunggami* “of the same age,”⁶⁴ *mimi* “a kind of large fly, flesh fly,” *nami* “a garment made of cured deerskin” or *siremi* “grober Strick aus Hanffasern.” Unfortunately, these *mi*-nominals are in general of obscure origin (with the exception of *mimi*, which is obviously an onomatopoetic expression). In most cases we cannot confirm whether they are morphemic or lexemic and, even worse, we cannot tell whether they are borrowings reflecting *mi*-sequences in the source language(s), unlike for example in Chin. loanwords like *daimi* ~ *daimei* “tortoise shell” ← Chin. *dàiméi* 玳瑁 “id.,” *loomi* ~ *lomi* “abgelagerter Reis alter Ernte, der nicht mehr klebrig ist” ← Chin. *lǎomǐ* 老米, *z’angmi* “von Schantung und Honan in die Staatsspeicher gelieferte Hirse” ← Chin. *cāngmǐ* 倉米, etc.

In short, the main problem when ascertaining the origin of *mu*-nominals lies in the existence in Manchu of two common, always incompatible paths of change. On the one hand, we have, for example, the regularity of the evolution of **o* or **ö* into Manchu *u* in the second syllable. On the other hand, we have two (irregular) sound changes:

national Symposium on B. Pilsudski’s Phonographic Records and the Ainu Culture (Sapporo: Executive Committee of the International Symposium, 1985), 197–98.

61. MEM 137.

62. MEM 138. Lexical doublet of the much older pair *heren* “corral, stable” (MEM 105). The replacement of *-m* with *-n* makes the presence of the paragogic vowel unnecessary.

63. MEM 139.

64. It has been traditionally assumed that *dunggami* comes from Chinese *tóng* 同 “same,” but this explanation alone does not account for the final *mi*-segment. On a speculative note, *dunggami* could be seen as another example of *niyalma* compound, that is, *niyalma* “man” resulted from the contraction of two terms which were synonymous in the parent language (and they are today in at least some of the historical languages): **nyarya* “man” (no continuation as such in Manchu) and **bəyə* “man” (> Manchu *beje* “body”). By the same token, the assumption can be made that Manchu *dunggami* goes back to **dunggV möyu* or the like, where **dunggV* clearly is the adaptation of Chin. *tóng* 同 “same,” whereas **möyu* could be related to Literary Ewenki *muyu* and Literary Ewen *möyu* “of the same age” (TMS 1.551b). These two expressions are nearly synonymous, hence the resemblance to the *niyalma* type formation.

vowel assimilation and vowel labialization, which obviously blur the effects of regular sound changes. This paper opened with the mention of the opposition *lamu(n)* vs. *lama*. According to what has been discussed in the foregoing, the latter variant is secondary (irregular vowel assimilation), in sharp contrast to *selemu* vs. *seleme*, where the former is secondary due to the application of vowel labialization.

4. Conclusion

It was Zakharov⁶⁵ who explained that there is a group of nouns which “can be distinguished by the final morphemes” *-ma₃*, *-mi* and *-mu*. In exclusively synchronic and descriptive terms, Zakharov’s (and later authors’) observation seems accurate: there is little doubt that we can gather several dozen such words whose main features are being nominal and ending in the harmonic *-ma*, or *-mi* and *-mu*. The historical picture, as I hope to have shown, is very different.

It is safe to claim that in Manchu the autonomous suffixes *-mi* and *-mu* never existed. Put differently, there is no positive evidence backing up their existence. If anything, *mi*- and *mu*-nominals are historical remnants of various processes, including regular phonological history, borrowing, or irregular sound changes (vowel assimilation or vowel labialization), the latter of which distorted an otherwise simple picture.⁶⁶ Thus, morphemic *mu*-nominals should be seen as lexicalizations with fossilized derivational morphology.

I will end this contribution on a speculative note. Perhaps the underlying mechanism leading to the irregular sound changes described above is semantic specialization. That is, the meaning of certain nominals moved away from the original semantics so much that the relationship between base and derivate became opaque. It is then that irregular sound changes occurred, making it even harder to recover the proper etymological identities of all parties involved.

Bibliography

- Avrorin, Valentin A., and Elena P. Lebedeva. *Orochskie teksty i slovar’*. Leningrad: Nauka, 1978.
Avrorin, Valentin A. *Grammatika man’chzhurskogo pis’mennogo iazyka*. Sankt-Peterburg: Nauka, 2000.

65. Zaxarov, *Grammatika man’chzhurskago iazyka*, 70 (under point 5), replicated in Gorelova, *Manchu Grammar*, 115.

66. This conclusion seems to hold true for other suffixes too. For example, for the suffix **-mA* mentioned above, Benzing (*Die tungusischen Sprachen*, 121) offers the reconstruction **-ma* ~ **-mu*. In light of the previous discussion, the assumption can be made that the (non-harmonic) *mu*-variant is secondary.

- Benzing, Johannes. *Die tungusischen Sprachen: Versuch einer vergleichenden Grammatik*. Wiesbaden: Harrassowitz, 1956.
- Boldyrev, Boris V. *Kategoriia kosvennoi prinadlezhnosti v tunguso-man'chzhurskix iazykax*. Moskva: Nauka, 1976.
- . *Èvenkiisko-russkii slovar'*. 2 vols. Novosibirsk: Izdatel'stvo SO RAN, 2000.
- . *Morfologiya èvenkiiskogo iazyka*. Novosibirsk: Nauka, 2007.
- Cincius, Vera I. *Sravnitel'naia fonetika tunguso-man'chzhurskix iazykov*. Leningrad: Gosudarstvennoe uchebno-pedagogicheskoe izdatel'stvo ministerstva prosveshcheniia RSFSR, 1949.
- Cincius, Vera I., ed. *Sravnitel'nyi slovar' tunguso-man'chzhurskix iazykov*, 2 vols. Leningrad: Izdatel'stvo Nauka, 1975–77.
- Corff, Oliver, et al. *Auf kaiserlichen Befehl erstelltes Wörterbuch des Manjurischen in fünf Sprachen*. 2 vols. Wiesbaden: Harrassowitz, 2013.
- Doerfer, Gerhard. *Mongolo-Tungusica*. Wiesbaden: Harrassowitz, 1985.
- . "Terms for Aquatic Animals in the Wu T'i Ch'ing Wên Chien." In *Proceedings of the International Symposium on B. Pilsudski's Phonographic Records and the Ainu Culture*, 190–202. Sapporo: Executive Committee of the International Symposium (Hokkaido University), 1985.
- . *Etymologisch-ethnologisches Wörterbuch tungusischer Dialekte (vornehmlich der Mandschurei)*. Unter Mitwirkung von Michael Knüppel. Hildesheim, Zürich, and New York: Georg Olms, 2004.
- Enhebatu 恩和巴图. *Manyu kouyu yanjiu* 满语口语研究. Huhehaote: Neimenggu daxue chubanshe, 1995.
- Gorcevskaja, Vera A. *Ocherk istorii izucheniia tunguso-man'chzhurskix iazykov*. Leningrad: Gosudarstvennoe uchebno-pedagogicheskoe izdatel'stvo ministerstva prosveshcheniia RSFSR, 1959.
- Gorelova, Liliya M. *Manchu Grammar*. Leiden: Brill, 2002.
- Haneda Tōru 羽田亨. *Man-Wa jiten* 滿和辭典. Tōkyō: Kokusho kankōkai, 1972. First published 1937.
- Hauer, Erich. *Handwörterbuch der Mandschusprache*. Wiesbaden: Harrassowitz, 2007. First published 1952–55.
- Ikegami Jirō 池上次郎. "Santan kotoba shū" サンタンことば集. *Hoppō bunka kenkyū* 北方文化研究 2 (1967): 27–87.
- Janhunen, Juha. "Liao: A Manchurian Hydronym and its Ethnohistorical Context." *Studia Etymologica Cracoviensia* 13 (2008): 89–102.
- . "The Tungusic Languages: A History of Contacts." In *Current Trends in Altaic Linguistics. A Festschrift for Professor Emeritus Seong Baeg-in on his 80th Birthday*, edited by Kim Juwon and Ko Dongho, 17–60. Seoul: Altaic Society of Korea, 2013.
- Ji Yonghai 季永海 and Zhao Zhizhong 赵志忠. "Nishan saman" 尼山萨满. *Manyu yanjiu* 满语研究 2 (1988): 117–44.
- Jin Qicong 金启琮. *Nüzhen wen cidian* 女真文辞典. Beijing: Wenwu chubanshe, 1984.
- Kane, Daniel. *The Sino-Jurchen Vocabulary of the Bureau of Interpreters*. Bloomington, Indiana: Indiana University (Uralic and Altaic Series), 1989.
- Kiyose, Gisaburo. *A Study of the Jurchen Language and Script*. Kyoto: Horitsubunka-sha, 1977.
- Knüppel, Michael. *Sprachtabus in tungusischen Sprachen und Dialekten: Am Beispiel von S. M. Širokogorovs "Tungus Dictionary"*. Wiesbaden: Harrassowitz, 2012.
- MEM = See Rozycki, 1994.
- Norman, Jerry. *A Comprehensive Manchu-English Dictionary*. Cambridge, Mass.: Harvard University Asia Center, 2013.

- Nowak, Margaret, and Stephen Durrant. *The Tale of the Nišan Shamaness: A Manchu Folk Epic*. Seattle and London: University of Washington Press, 1977.
- Ozolinja, Larisa V. *Oroksko-russkii slovar'*. Novosibirsk: Izdatel'stvo SO RAN, 2001.
- Paškov, Boris K. *Man'chzhurskii iazyk*. Moskva: Izdatel'stvo vostochnoi literatury, 1964.
- Pentaglot = See Corff et al., 2013.
- Pulleyblank, Edwin G. *Lexicon of Reconstructed Pronunciation in Early Middle Chinese, Late Middle Chinese and Early Mandarin*. Vancouver: University of British Columbia Press, 1991.
- Rozycki, William. *Mongol Elements in Manchu*. Bloomington, Indiana: Indiana University, Research Institute for Inner Asian Studies, 1994.
- Rybatzki, Volker. "Die tungusische Metallterminologie." *Studia Etymologica Cracoviensia* 7 (2002): 89–126.
- Ryzhkov-Shukumine, Alexandre. "Long Vowels in Proto-Tungusic." *International Journal of Eurasian Linguistics* 2 (2020): 70–93.
- Sunik, Orest P. *Glagol v tunguso-man'chzhurskix iazykax*. Leningrad: Izdatel'stvo akademii nauk SSSR, 1962.
- Takekoshi, Takashi. "Grammatical Descriptions in Manchu Grammar Books from the Qing Dynasty." *Histoire épistémologie langage* 41.1 (2019): 39–55.
- TMS = See Cincius, 1975–1977.
- Volkova, Maiia P. *Nishan samani bithe (predanie o nishanskoj shamanke)*. Moskva: Izdatel'stvo vostochnoi literatury, 1961.
- Vovin, Alexander. "Once again on the Tabgač Language." *Mongolian Studies* 29 (2007): 191–206.
- Yamamoto Kengo 山本謙吾. *Manshū-go kōgo kiso goi shū* 満州語口語基礎語彙集. Tōkyō: Tōkyō gaikokugo daigaku (Ajia Afurika gengo bunka kenkyūjo), 1969.
- Zakharov, Ivan I. *Polnyi man'chzhursko-russkii slovar'*. Sanktpeterburg": Tipografija imperatorskoj Akademii nauk", 1875.
- . *Grammatika man'chzhurskago iazyka*. Folkestone: Global Oriental and Sanktpeterburg": Tipografiia imperatorskoi akademii nauk", 2010. First published 1879.