	An English summary
Paper title	Morphology and phonology of written Manchu : In Classical Manchu *Jin Ping Mei*
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I. Structure and purpose

This paper reviews the main literature written in Manchu around the 17th century and explores their records on phonology and morphology. There exists an enormous amount of literature in Manchu, and most of the previous researches on the field focus on comparing different periods. However, due to the sharp decline of the use of Manchu after the 17th century, some discrepancies in writing appear between the documents. Treating such documents equally unables a researcher to specify whether certain changes in writing reason in diachronic development or synchronic alomorph formations, which furthermore results in inaccurate phonological conclusions.

The paper consists of four chapters that together count 377 pages. Its purpose is to demonstrate the synchronous phonological and morphological changes of the 17th century through the work of Classical Manchu *Jin Ping Mei*, a collection of fifty thousand short stories, a study objects that would enable a researcher to avoid possible differences among literature.

II. Chapter 1: Introduction

Chapter 1 lists available literature on several languages that contribute to the explanation of the development of written Manchu and its phonology. Classical Manchu *Jin Ping Mei* is a 17th century work, which points at the phonological knowledge of such languages as ancient Chinese, Korean, Japanese, and others. In recent language studies, Tungus language group is being payed a lot of attention, and the findings are expected to greatly contribute to the linguistic research on Manchu.

Manchu phonology is therefore approached from different angles and different languages, most recently also from the linguistics of Tungus language group.

III. Chapter 2: Word structure

Chapter 2 is concerned mainly with the structure of verbs. Manchu is an agglutinative language in which conjugation is defined with a verbal stem and its suffix.

Agglutinative languages are typologically further divided according to their affix order. In this chapter, the author focuses on the structure of verbs and their conjugation forms, such as imperative, predicative, conjunctive, and attributive, discusses their possible suffixes and following words, and presents morphological limitations through examples. Furthermore, the author describes positions of prolonged stem affix, spontaneous affix and affixes for passive and causality in relation to a verbal stem, concerning aspect mainly.

Diachronic perspective allows several verbal affixes in Manchu. In the present paper the author examines the approach to Chinese borrowings in which affix *-l* is accepted as a productive verbal affix. However, productivity of verbal affixes is questioned by the fact that synchronically, in the 17th century, neither phonological nor morphological predictions could be made on which affix to use for deriving verbs from other parts of speech. This strongly suggests that, from the synchronic perspective, all verbal affixes but *-l* should be interpreted as parts of a verbal stem, and thus in Manchu, such examples as *gisur*-{speak} show that all consonants except *n* constitute a verbal stem.

Furthermore, it was reported that in Manchu, nouns and adjectives are produced by adding a verbal stem *-n* to such examples like *eyen*{a flow}/*eye*-{to flow}, *sain*{good}/*saiš*-{accept}. This is, however, not the case with *cinggiya*/*cinggiyan*{narrow, shallow}, where *-n* is optional, or even with *aga*{rain}/*aga*-{to rain}, where it is not present. Therefore it can be concluded that, from the viewpoint of syllable structure as well as word structure, affix *-n* synchronically does not function as a nominal or adjectival affix.

IV. Chapter 3: Phoneme and syllable

Chapter 3 concerns the phoneme and the syllable. In Manchu, there are 6 letters for vowels: *a, e, i, o, ū*, and the following vowel sequences Vo: *io, eo, oo, ao*. Sequence oo is known for its two interpretations, either being read as a long vowel /o:/[ɔ:] or as a diphthong [au]. The present paper deals with the mentioned vowel sequence from the phonetic view by examining the Old Hangul transcription, Old Chinese transliteration, and San-jia-zi Manchu, as well as from the phonological view, where it pays attention to vowel harmony and word structure, and shows that *o* in a Vo sequence is realized either as [u], [w], [o], or [ɔ].

There is also evidence for metathesis, as in example *huwelen* ⟺ *heolen*{to neglect}, *tuwedenjembi* ⟺ *teodenjembi*{to forward}. The present paper introduces 4 types of metasthesis. Firstly, *huwe* in its old form *hu.we* forms two syllables. Secondly, huwe in its old form huwe could also be treated as one syllable. Thirdly, heo as an old form is a two-syllable *he.o*. And fourthly, heo in its old form heo is taken as one syllable. A review of the four possibilities shows that *o* in a letter sequence *eo* is realized either as /u/ or /w/, and consequently, huwe is interpreted as consisting of a single syllable. The above approach that includes syllable structure into the research on Manchu is thought to be innovative.

From the above, the sequence *oo* produces the following four forms; firstly, alomorphs such as *boofun*/*bofun*{a parcel}, secondly, sentence final particles in questions, like *gaihoo*{Did

you accept it?}, thirdly, Chinese borrowings transcribed in Manchu such as *loo*{a prison}, and fourthly, cases of diphthongs or a sequence of vowels like in *moo*{a tree}. Chapter 3 includes the discussion on these four forms and stresses the non-existence of the long vowel /o:/ as a realization of oo sequence.

The author also describes the neutral vowel in Manchu. A closer look at the letter sequence oCu, uCo, oCa, aCo, oCe reveals that a vowel *u* can coocur with a vowel *o* within a word. However, the coocurance is impossible within a word stem alone. In other words, vowels *u* and *o* coocur only over the border of two word morphemes. The same phenomenon can be observed for the vowel sequences *a* and *o*, *a* and *u*, as well as *u* and *o*. This suggests that realization of the *oo* sequence within a word stem can either be /ou/ or /ow/, where realization /au/ is elimited from all the possibilities.

Finally, as the syllable structure of Manchu is concerned, CVCV is hypothesized to be the canonical form, and based on this form places where vowel deletion is more likely to occur are introduced. Example *nomohon/nomhon*{faithful} shows that in case of (C)V.CV.CV(C) environment, vowel deletion is most likely to occur on the second syllable when the preceding consonant is a sonorant.

Consequently, the present paper argues that CVCV is the basic form in Manchu, which is also observed from the following examples. In the case of the word *yebcungge/yebecungge* {beautiful; lovely} it can only be speculated about the missing vowel. However, the view that vowel deletion occurred is expected to be valid. In addition that this view results from the Manchu phonological structure, it is also supported by the comparison to Tungus language group, which also proposes CVCV structure as the basic one. For example, *umhan*{an egg} in Manchu is written as *umukta* in Negidal. To look at it further, the assumption that the basic form in old times was /umuktan(~umukta)/ suggests the development * *umuktan* → * *umuhan* → *umhan*{an egg}. From the syncronic point of view it is possible to argue that, in writing, in the 17th century there existed a vowel after a syllable that ends in (a) consonant(s) *k*, *b*, *s*, *t*, *l*, *r*, *n*, *m*, or *ng*. This was also argued for some languages in the Tungus language group, namely, that according to phonological changes, (a) final consonant(s) *k*, *b*, *s*, *t*, *l*, *r*, *n*, *m*, or *ng* of a syllable was/were followed by a vowel letter. The fact makes the author conclude that the restriction of *n* being the only consonant possible in a final position of a word can be broadened into the restriction that *n* is the only possible consonant in a final position of any syllable.

V. Chapter 4: Vowel harmony

Vowel harmony is a well known phenomenon in Manchu, still, even when ignoring the fact that vowel harmony rules allow more and more irregularities, researchers have difficulties in finding a common opinion. Three controversal problems stand out, namely the number of basic vowel phonemes and their identity in Manchu, the system of vowel harmony, and finally, the scope of vowel harmony.

Within the word stem, vowels *a*, *o*, and *ū* can coocur with vowels *i* and *u*, while vowel *e* coocurs with vowels *i* and *u*. Even though vowels *i* and *u* can coocur with any vowel within a word stem, vowels in the affix – on the level of writing – can not be predicted. However, in

cases when word stem consists of vowels *i* and *u* only, its affix includes either the structure -Ca or –Ce, and such word can further accept only -Ca or -Ce affixes. In other words, if supposed that vowel letters *i* and *u* in the word stem are actually realized as either /ɪ, ʊ/ or /i, u/, then vowel harmony in Manchu produces no irregularities, and can be called a well-formed system.

Vowel harmony in Manchu that takes place on the affix depends on the phonological structure of the affix, more precisely, on whether the structure of an affix is -rA₃ or not. In the case of a -rA₃ affix, a vowel immediately preceding the affix represents the causative scope of the phonomenon, and synchronically, such harmony can be interpreted as assimilation. In the case of an affix different from -rA₃, the following process occurs:

1. causative scope of harmony : word stem   (including extended word stems)
   a. $\boxed{CVCVCV}$ - CV
2. vowel grouping according to vowel harmony
   a. +narrow (i, e, u)
   b. −narrow (a, o, ɪ, ʊ)
3. vowel harmony rules
   a. if causative scope of harmony is +narrow, affix becomes +narrow (-Ce/-Cu)
   b. if causative scope of harmony is −narrow, affix becomes −narrow (-Ca/-Cū)

The above view on the vowel harmony also explains cases when a word stem consists of neutral vowels only, as presented below. 'Narrow' is marked by a capital letter N.

1. *ji* -	hA₃	→	*ji* -	*he*	{left, came}
+N	αN		+N	+N	
2. *isi* -	hA₃	→	*isi* -	*ha*	{passed over}
−N, αN	αN		−N, −N	−N	

The present paper also offers 3 explanations for the breaking down of the vowel harmony system in Manchu. The first reason is a change of vowel system; number of vowels was reduced from seven to six. The second reason is that vowel feature 'narrow' is losing its contribution to vowel harmony. The last, third reason is that vowel harmony of basic vowels is changing onto a surface form of assimilation. Theoretical considerations of the present paper presume the existence of seven vowels in Manchu, however, confirm only six in the period of Classical Manchu *Jin Ping Mei*. Furthermore, they confirm the traces of influence that phonological feature 'narrow' had within a morpheme, and connect them to the irregularities that concern vowel harmony system.

Based on the synchronic point of view through all four chapters, the present paper also refers to the diachronic development of Manchu and thus represents a valuable source for further research not only on phonology and morphology of Manchu but also of Tungus and Altaic languages.