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The Structure of Reduplication of Adjectives and Verbs in Mandarin and Shanghainese

1. Introduction

The main topic of this paper will be the analysis of reduplication of verbs and adjectives in Mandarin Chinese and Shanghainese. Reduplication is a morphological operation in which part of (or all of) a morpheme's base is duplicated and attached to the original base to create a new morpheme. This operation is a form of compounding and is very commonly seen in many languages. A simple example of this can be seen in Mandarin, where the word for “happy”, *gāoxìng*, can be reduplicated to form *gāoxìnggāoxìng*, which now means “have a little fun”.

Mandarin Chinese is the most widely spoken language in China, and one of the most spoken languages in the world. Mandarin is a language that makes heavy use of compounding to generate words, so many instances of reduplication can be found throughout the language, which makes it a great baseline for an investigation into reduplication (Lee-Kim and Sang-Im). Shanghainese is the largest dialect of Wu Chinese, a language that is mutually unintelligible with Mandarin Chinese, but historically shares a similar geographical origin (Zhengzhang et. al. 189). This connection makes Shanghainese an interesting comparison point for an investigation into the structure of reduplication across different dialects.

This topic is interesting in the broader scope of morphology due to the unique nature of Chinese morphology. While many languages such as English make frequent use of operations like affixing, Chinese is nearly entirely generated through compounding. By analyzing specific

instances of this compounding, like reduplication, and their presence across Chinese dialects, it may be possible to arrive at a better picture of the historical reasons for this unique development.

2. Updated Literature Review

Much of the existing research on reduplication in Mandarin focuses on a structural analysis of compounds constructed using reduplication. While this research shows that reduplication affects nearly all major lexical categories, the majority of the research is targeted at analyzing reduplication's relationship with verbs and adjectives (Wang).

The simplest form of reduplication in Mandarin can be seen with monosyllabic bases and can occur in both verbs and adjectives (Melloni and Basciano 329). This form of reduplication is described as AA reduplication, where A defines a base that is reduplicated. In verbs, this tends to be a form of diminishing reduplication, which means that the resulting meaning is of a lesser degree than the original. This can be seen in the reduplication of “zǒu” (“walk”), which results in “zǒuzǒu” (“walk a little”). In addition, this reduplication result is not atomic, as other morphemes are allowed to be inserted in between the original base and the reduplicant (Melloni and Basciano 331). Using the “zǒuzǒu” example from above, we can see that the morpheme “le” can be inserted to form “zǒulezǒu” (“walked a little”). On the other hand, reduplication of monosyllabic adjectives tends to take the form of increasing reduplication, which means that the resulting meaning is of a higher degree than the original. We can observe this in the reduplication of “dà” (“big”), which creates “dàdà” (“very big”). Unlike diminishing reduplication, increasing reduplication does seem to be an atomic operation in Mandarin, as results like “dàledà”* do not appear to be valid constructions. It should also be noted that there exist structural restrictions on which bases can undergo increasing reduplication, however, this is outside the scope of this investigation (Melloni and Basciano 334).

The most commonly studied phenomenon is disyllabic reduplication and the presence and usage of ABAB reduplication vs. AABB reduplication, where A and B represent syllables and AB is the reduplicated base (Feng 2). A surface level analysis reveals that ABAB reduplication typically occurs with verbs, while AABB reduplication typically occurs with adjectives. This simple phenomenon is then expanded to show that these patterns don't just allow for simple verb-to-verb and adjective-to-adjective generation, but that the ABAB pattern is capable of performing adjective-to-verb conversion and the AABB pattern can perform verb-to-adjective conversion (Melloni and Basciano 334). Finally, there seems to be a variant of ABAB reduplication that results in the form AAB, generated when the internal structure of the verb consists of one verb morpheme and one object morpheme, rather than two verb morphemes (Feng 3). For instance, the word “chīfàn” (“eat”) is composed of a verb morpheme “chī” (“eat”) and an object morpheme “fàn” (“meal”). This can then undergo reduplication to become “chīchīfàn” (“eat a little”). Each of these patterns will be investigated to see if they have counterparts in Shanghainese.

When looking beyond the scope of word classes, we also see that these various forms of reduplication exhibit strong ties to semantic meaning. In general, the pattern of ABAB is always used as a form of diminishing reduplication, while the pattern of AABB is always used as a form of increasing reduplication, as opposed to how monosyllabic reduplication tended to generate words based on the word class of the base. These differences also extend to restrictions on the inputs and outputs of each reduplication process. While selection restrictions for diminishing reduplication seem to be missing concrete ties to morphology, selection restrictions for increasing reduplication are much more closely related to morphology. For example, the modifier “fēicháng” (“very”) and the adjective “gāoxìng” (“happy”) can be used to construct “fēicháng

gāoxìng” (“very happy”). However, once it undergoes increasing reduplication to become “gāogāoxìngxìng” (“very happy”), it is no longer allowed to be modified: “fēichánggāogāoxìngxìng”*.

3. Research Questions

- How is reduplication used in Mandarin Chinese?
- What instances of reduplication are found in the dialect of Shanghainese?
- In what ways are the structures of reduplication, especially those relating to adjectives and verbs, similar or different when comparing Mandarin and Shanghainese?

4. Method for Data Gathering

I collected the data I needed to make my arguments from both published sources and native speakers.

As seen in the literature review, the nature of reduplication in Mandarin is well-documented, which provides a strong foundation for how Mandarin reduplication is constructed (Feng 1). This also had the added benefit of providing useful examples of reduplication in the language, from which I can work from (Melloni and Basciano 331). Since Mandarin is intended to serve as the baseline for this investigation, I chose to rely on these well-documented examples to gather most of my Mandarin data. In order to verify that these samples were valid, I used both mine and my parents’ (who are native Mandarin speakers) knowledge of Mandarin to ensure that the examples were not only correct, but also an accurate representation of how Mandarin is actually spoken.

For Shanghainese, the existing literature is much more sparse, so I consulted my mother, who I chose because she is both a native Shanghainese speaker, and also a native Mandarin speaker. This allowed me to introduce the concept of reduplication to her by using examples in

Mandarin. Once we were confident that she understood the phenomenon, I asked her if she could think of any basic examples of reduplication in Shanghainese. These initial samples revealed a basic AAB and AA pattern of reduplication, a divergence from the AABB and ABAB patterns more common in Mandarin. To confirm this observation, I introduced my mother to these patterns, and asked her if any other patterns occurred in Shanghainese. From there, I was able to compare and contrast the Mandarin dataset with the Shanghainese dataset and learn about any similarities that existed.

5. Presentation and Description of Some Essential Data

Mandarin AA Reduplication:

走 _V		走 走 _V
zǒu	→	zǒu zǒu
“walk”		“walk a little”

Mandarin ABAB Reduplication:

打 扫 _V		打 扫 打 扫 _V
dǎ sǎo	→	dǎ sǎo dǎ sǎo
“to clean”		“to clean a little”
高 兴 _A		高 兴 高 兴 _V
gāo xìng	→	gāo xìng gāo xìng
“happy”		“have a little fun”

Mandarin AABB Reduplication:

高 兴 _A		高 高 兴 兴 _A
gāo xìng	→	gāo gāo xìng xìng
“happy”		“very happy”
指 点 _V		指 指 点 点 _A
zhǐ diǎn	→	zhǐ zhǐ diǎn diǎn
“suggest”		“critical, bossy”

Mandarin AAB Reduplication:

跳 舞 _V		跳 跳 舞 _V
tiào wǔ	→	tiào tiào wǔ
“dance”		“dance a little”

Shanghainese AA Reduplication:

mo _A	→	mo mo _A
“unclear, dark”		“very dark”

Shanghainese ABAB Reduplication:

zi zai _A	→	zi zai zi zai _V
“comfortable”		“feeling at home”
qing song _A	→	qing song qing song _V
“not stressed out”		“to have a break and relax”
di da _V	→	di da di da _V
“tick tock”		“making the sounds of a clock”

Shanghainese AABB Reduplication:

chi he _A	→	chi chi he he _A
“routine”		“relaxes and enjoys the moment”
qing song _A	→	qing qing song song _A
“not get stressed out”		“takes it easy”
di da _V	→	di di da da _A
“tick tock”		“(describes) the sounds of a clock”

Shanghainese AAB Reduplication:

se qing _A	→	se se qing _A
“clear, refreshing”		“very refreshing”

6. Interpretation/Analysis of the Data

With regards to reduplication of monosyllabic bases in the AA pattern, Shanghainese reduplication appears to be very similar to Mandarin. In the data that was gathered, we saw that the adjective “mo” (“dark”) could undergo reduplication to construct “momo” (“very dark”).

From the English translations, we can see that this is specifically increasing reduplication. This phenomenon appears to perfectly mirror the AA reduplication of adjectives in Mandarin. Referencing the Mandarin example of “da” (“big”), we can see that in both languages, the base is both reduplicated according to the AA pattern, and the adjective base results in an increasing reduplication. In addition, neither language allows a morpheme to occur between the base and the reduplicant when the base is an adjective. However, during this data collection, no evidence of AA reduplication of verbs was found. In Mandarin, this process would typically have followed the same AA pattern, but would have caused diminishing reduplication. In this case, it is possible that this data point was simply missed during data collection, since there does not appear to be a reason for Shanghainese to not utilize this form of reduplication.

For the reduplication of disyllabic bases, we once again see a strong correspondence between the rules of reduplication in Mandarin and Shanghainese. Much like Mandarin, Shanghainese appears to utilize three major patterns of disyllabic reduplication: ABAB, AABB, and AAB.

In Mandarin ABAB reduplication, an adjective or verb base typically undergoes diminishing reduplication to become a verb ABAB. From the data point “di da” (“tick” (of a clock)), we can confirm that Shanghainese reduplication supports the same basic verb-to-verb conversion that Mandarin does, as the verb base reduplicates to form “di da di da” (“making the sounds of a clock”). We can see that the adjective-to-verb conversion is also supported in the data point “qing song” (“unstressed”), which becomes “qing song qing song” (“to take a break and relax”). However, in both samples, we see no evidence of the diminishing reduplication present in the Mandarin ABAB pattern. Shanghainese instead appears to create words with slightly different meanings to the bases, rather than simply decreasing the degree of the base.

AABB reduplication undergoes a similar change when moving from Mandarin to Shanghainese. We can see that Shanghainese allows “qing song” (“unstressed”) to be reduplicated into “qing qing song song” (“one who takes it easy”), enabling the same adjective-to-adjective conversion as in Mandarin. This minimal pair, along with that of “di da”, helps to confirm that the pattern of reduplication is once again solely responsible for converting bases to verbs in ABAB form, or adjectives in AABB form in Shanghainese. Much like diminishing reduplication of the ABAB pattern, the Shanghainese AABB pattern does not appear to retain the property of increasing reduplication that was present in Mandarin. Instead, we see that, much like in the ABAB pattern, the AABB pattern produces an adjective that has a similar meaning to the original base.

Finally, we note that the AAB pattern appears to diverge the most from the Mandarin equivalent. In Shanghainese, only evidence of adjectives using the AAB pattern was found, while in Mandarin, only verbs undergo AAB reduplication. In addition, it appears that this pattern in Shanghainese uses increasing reduplication, while in Mandarin, it uses diminishing reduplication. However, based on observations of how the AA pattern behaves, it seems likely that this difference is due to the difference in word classes of the bases that were reduplicated. Much like in AA reduplication, our samples show that adjective bases undergo increasing reduplication, while verb bases undergo diminishing reduplication. As a result, the main distinction between both AAB patterns appears to be the word class of the base.

7. Conclusions/Future Developments

In terms of the structure of reduplication in Shanghainese, we have seen that verbs and adjectives follow the same four basic patterns as they do in Mandarin: AA, ABAB, AABB, and AAB. However, when looking past the patterns themselves, we do see minor alterations in the

rules of reduplication. With respect to the base ABAB and AABB patterns, we see that, while the word class interactions remain the same between both dialects, the semantic implications of the reduplication have changed. Instead of undergoing increasing or diminishing reduplication, the reduplication instead slightly modifies the meaning of the word to fit the resulting word class. When it comes to the less common AA and AAB patterns, we see the opposite effect. Both patterns retain their increasing and diminishing reduplication properties, but impact different word classes than their Mandarin counterparts. Since these dialects share a common ancestor, it is likely that the origin of these differences is historical.

There are many possible next steps for this research. For one, there are many other dialects of Chinese that may be interesting to look at. If we continue to see these patterns of reduplication across multiple other dialects, it strengthens the conclusion that the structure has a unified historical origin, and may help in tracing its source. Within the realm of Shanghainese itself, it would certainly be helpful to continue to gather more data from various sources. This could help alleviate the concerns surrounding the possible word classes in the AA pattern, as well as confirming observations surrounding the other patterns. Finally, it would be worthwhile to look beyond the structures of the reduplication themselves. A comparison of possible valid inputs to the reduplication process could help further our understanding of how similar Mandarin and Shanghainese reduplication are. In addition, it may help explain why we see the changes that we do see amongst the various patterns.

8. The Updated Bibliographical References

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