

Reviewer's assessment of Saizhu Hu's dissertation *Lost and added in translation*

This dissertation examines semantically corresponding nominal phrases in Mandarin Chinese (henceforth: Chinese) and English and aims to find out how, if at all, numeral classifiers are represented in the English equivalents of the Chinese phrases. The Candidate has a very solid theoretical background. The dissertation fills a gap in earlier research, and thus makes original contributions to the field. The work has clear, sound research aims and hypotheses, which are addressed in a detailed and scientifically rigorous manner, and with good methodology. The presentation of the results is clear and logically built. The discussion focuses on how meaning is lost and gained in translation, and thus makes a contribution to applied linguistics. At the same time, the thesis is informed by formal linguistic studies, and its results confirm and disconfirm some earlier hypotheses about classifiers, thus it also makes a clear contribution to formal linguistics.

The work has a monograph format with eight chapters. It is written in good academic English and is virtually free of typos. It conforms to all the formal layout criteria that is expected from a PhD thesis. Helpful introductions and summaries are provided throughout to guide the reader.

In light of the above, it is my pleasure to recommend that the Candidate proceed to the final stages towards earning a PhD title.

My detailed comments on the chapters can be found below. Some of these are not critical comments but provide food for thought or further research, or inquire about the Candidate's view on issues which are connected to the topic but strictly speaking lie beyond the scope of this work.

Chapter 1 provides an overview of the structure of the thesis and identifies the research gap the work aims to fill. It also presents the research questions and the hypotheses. There were two hypotheses such that I did not fully understand what motivated them.

a) p3: "general classifiers are used more frequently without adjectives. However, specific classifiers are more likely to occur with adjectives." At this point in the thesis I did not understand how or why classifier type was predicted to be correlated with the presence of adjectives. Presenting this hypothesis would have required a bit more background.

b) p. 4: "the numeral *yī* 'one' is more likely to be translated into articles expressing definiteness rather than the numeral *one* only expressing specificity." I wasn't sure why it was expected that *yī* would be translated with articles expressing *definiteness* – unless the Candidate meant specifically the *indefinite* article, which would indeed be motivated and also corresponds to the findings.

Chapter 2 gives a very thorough and well-informed background to noun categorization devices. It explains what the object of study is, and how classifiers differ from grammatical gender. The chapter reviews both the classic overview works (such as Aikhenvald and Bisang) as well as recent and very recent, in-the-pipelines papers on particular languages where relevant (e.g. Sandman and Di Garbo). I have only very minor comments to this chapter.

On p. 37 the Candidate writes that „Borer (2005: 95) further points out that in such languages as Armenian (Indo-European), plural markers and numeral classifiers do not cooccur, since

plural markers occur as suffixes and numeral classifiers are independent pre-nominal morphemes.”: The use of „since” is not warranted here. According to Borer’s arguments, classifiers and the plural do not cooccur because they occupy the same slot in the hierarchical syntactic structure. The prenominal vs suffixal nature of these elements is immaterial. In fact, they do not occupy the same position in the linear sequence of the NP, and so without reference to the underlying structure, they would be predicted to be compatible with each other.

The Candidate states many times that numeral classifiers are obligatory (e.g. p. 38: “Numeral classifiers are obligatory in classifier languages”). It would be good to make it clear that this applies to Chinese but not to classifier languages across the board. This is especially so because on p. 24 the thesis itself refers to the optional use of numeral classifiers in Hungarian, and there is also reference to optionality on p. 39 (“less grammaticalized and thus more optional in terms of their presence”) and p. 41 (their “optional nature”). The survey of Gil (2013), referred to on p. 24, has found that 44% of languages that have classifiers use them optionally. Additionally, the adjective “obligatory” could perhaps also be hedged in connection with Chinese itself. See the discussion of omission in listing items on p. 62 of the thesis (Chap 3, ex. 40) and on p. 96 (Chap. 4) as well as in Table 35 (Chap. 7).

The intermediate system of Ngan’gityemerri would perhaps benefitted from a few examples showcasing how the noun categorization devices really fall between gender and classifiers; based on the discussion, it’s a bit hard to understand this.

Chapter 3 offers a very informative and detailed background to the use of numeral classifiers specifically in Mandarin Chinese. It shows that the Candidate has explored, understood and managed to synthesize the vast literature on classifiers both in the Chinese and the Western tradition in an exemplary manner. Again, I have only small comments or questions here.

Ex. 39b is interesting: it has neither a numeral/quantifier nor a demonstrative, so it seems to me that this is not a “canonical use” of the classifier in Chinese. The Candidate did not comment much on this example, other than pointing out the correlation between the adjective and “de”. This use of the classifier is likely syntactically rather different from the use of classifiers in garden variety Num-Cl-N structures. Could it be a reduced relative clause? Still, the absence of the numeral/quantifier or a demonstrative is puzzling.

In exx. 38c,d the Candidate illustrates an argument from the literature. My comment here is therefore directed *not* at the Candidate but the original work. Ex. 38c is informative only to the extent that CLF: SHIFT can be used with the Chinese word for “train” to begin with, and this was not illustrated. I wonder if ex. 38d would be better rendered as “one and a bit more flight”: after all, without “more”, the phrase means “one flight”, not “one plane”.

Ex. 40 is described as involving a classifier omitted in listing items. By “listing”, we usually mean a list that appears after a colon, e.g. “This recipe needs the following ingredients: [...]”. This example rather seems to show the omission of classifiers in asyndetic coordination.

Regarding the diachrony of classifiers, I was wondering what the assumed structure was in exx. 55c,d. In this summary of earlier literature on the topic, two nouns are shown, and if this is taken literally, then these strings must involve two NPs (due to endocentricity, a phrase cannot have two heads), perhaps in an appositive relationship. An alternative would be that N2 is really already a classifier here. I’m wondering if the Candidate has any thoughts on this. Earlier literature claimed that in ex. 56 we have predicative noun phrases. The Candidate does not

challenge this claim, but the translations do not support the predicative claim, unfortunately. Ex. 56a is translated with a single noun phrase, and the “N1 Num N2” string also receives a single NP translation in ex. 56b. I’m wondering if the predicative claim found in earlier literature is false/unsupportable or just the translations are off here. (I hasten to add that diachrony is not central to the thesis in any way, and I’m just wondering what the Candidate thinks about claims made in the earlier literature.)

Chapter 4 describes the methodology of the thesis. The discussion is careful and detailed. The Candidate also explicitly addresses the limitations of the corpus, which I appreciated very much. The corpus queries in Corpora 1 and 2 focused on NPs with the numeral “one”. The motivation for this is clear: here we expect to see translation with an article into English, while with the other numerals we don’t (necessarily). I wonder, though, if a smaller control group would have been warranted where the numeral would have been other than “one”. The reason is that “one” is cross-linguistically often exceptional. In Basque, Laotian, Moroccan Arabic and Sinhala, it occurs in positions that are not open to other numerals. In Akatek it is the only numeral that does not require classificatory suffixes, and Hebrew this is the only numeral that shows robust gender agreement. In many languages, “one” is exceptional. Thus if we want to study the translation possibilities of numeral classifiers, then we want to observe them next to “non-special”, ordinary numerals as well.

In this chapter, the Candidate suggests that “the distinction between countable vs. uncountable nouns can be made based on whether or not nominal referents can be separated in terms of physical and temporal bounds or internal features”. I disagree with this. As is well known, English minimal pairs like “shoe” ~ “footwear”, “leaves” ~ “foliage”, “coins” ~ “change” have the same nominal referents, yet they differ in linguistic countability. In addition, object mass nouns in English such as “furniture” perfectly conform to the definition, but they are not countable. Note also that canonical mass nouns also have count uses: “Two coffees/beers, please”. It seems to me, however, that the Candidate did not use this definition in sorting nouns into mass and count nouns, but used formal tests, such as replacement by the general classifier and omission. These formal tests are reliable, so the results are also reliable. There is one more test that may have been included (and which also helps to tell apart classifiers from measure words): numeral classifiers have the meaning “times one” (measure words don’t have this meaning), see Her & Hsieh (2010), Her (2012) and Her & Lai (2012).

Regarding nouns with the [\pm count] classification, I wonder if it would have been wise to mark instead or in addition if that particular *occurrence* of the noun was count or mass.

Corpora 1 and 2 did not give information about the direction of translation. I am wondering about the Candidate’s thoughts on what type of additional information could have been extracted/examined if this type of information had been available.

Chapter 5 examines the semantic contribution of Chinese classifiers. In this chapter I consider the discussion of event classifiers and the finding that “shape classifiers pre-modified with an adjective are more likely to cooccur with a wider range of nouns without necessarily being semantically consistent with the nouns” (p. 134) especially valuable. The finding that uncountable nouns can occur with classifiers which are not the kind classifier is also new and potentially very valuable, but it would have been good to illustrate this finding with data from the corpora, in order to inform further research on the topic. Previous literature has sometimes

claimed that sortal classifiers cannot be preceded by adjectives. This claim has been challenged, though, so there is ultimately no consensus on the topic. The Candidate's corpus data now unequivocally show that the Num-Adj-CI-N pattern is attested.

On p. 104, the Candidate claims that "Chinese general and specific classifiers occur in a complementary distribution when they are not modified by adjectives". I think this claim should be fine-tuned, as I did not see evidence for it in this form. By "complementary distribution", we normally mean the morphological and syntactic environments in which a particular item can appear. The corpus data did not demonstrate that there are frames/constructions that admit only general classifiers while others admit only specific classifiers. Had such data been found, it would have qualified as complementary distribution, but this is not the case. All the hits in Corpus 1 are in the frame "one CI N", so there is no complementary distribution here. However, general classifiers and specific classifiers have semantic contributions on opposite sides of a scale (from very general to very specific), and in this sense they can be said to be complementary, if not in distribution, but in semantic contribution. General and specific classifiers are in an almost complementary distribution in Corpus 2 when they *are* modified by adjectives. This is an interesting finding. I am wondering if the Candidate thinks that native speaker judgments would confirm that adjectives are strange with general classifiers, or this is an accident of the corpus.

Regarding previous studies that claim that uncountable nouns can only occur with measure words but not numeral classifiers, I wonder whether these studies considered kind classifiers at all, and if so, how they categorized them. In my own work, for instance, I do not collapse sortal classifiers and kind classifiers into the same group; I consider kind classifiers just as different from sortal classifiers as group classifiers and arrangement classifiers. One reason for this is that kind classifiers are found in all languages I am familiar with, but this is not so for sortal classifiers. In addition, kind classifiers, like measure words, can collocate with both mass and count nouns. Therefore, if previous studies did not consider kind classifiers as a subtype of sortal classifiers, then they could legitimately claim that uncountable nouns do not occur with numeral classifiers, to the extent that by numeral classifiers they meant sortal classifiers.

I am wondering about the modification possibilities of the general kind classifier *zhǒng*. In both English, a non-classifier language, and Hungarian, an optional classifier language, "kind, type" can be modified by adjectives such as "new, old". I wonder if this is possible in Chinese. That is, is the lack of adjectival modifiers with *zhǒng* a matter of accidental gap in the corpus or does this reflect something deeper about what is (not) possible for native speakers. Or would such adjectives occur between *zhǒng* and the noun?

Here and in later chapters, the quantitative method relies exclusively on calculating percentages. Modern corpus studies often complement their numerical findings with statistical methods, to find out if certain differences are statistically significant or not. It might very well be the case that *p* values and such would not have made significant contributions to the findings, but at the defense I'd like to hear the Candidate's reasons for not applying statistics (other than percentages) to the findings.

Chapter 6 looks at whether some morpheme corresponds to Chinese classifiers in the English equivalent NPs. The finding that classifiers do sometimes correspond to measure words in English, especially in the context of adjectives, is unexpected, and therefore valuable. I wonder in how many percentage of these cases the English word is actually uncountable, and therefore incompatible with numerals on its own (e.g. "technology" in exx. 81c,f). Such cases would require a measure word, independently of whether the phrase is translated from a classifier language. This is relevant because the same noun may be countable in one language and

uncountable in another (e.g. “advice” in English is uncountable, but its Hungarian counterpart is a garden variety count noun). Is the Candidate’s impression that most of the relevant cases are like this?

That in 5% of cases Chinese *yī* corresponds to a definite determiner is equally surprising, and invites further study into the contexts where it happens. I wonder to what extent these could be ascribed to artistic freedom in translation.

One thing that this chapter is missing, in my opinion, is discussion of whether Chinese *yī* can be considered to be ambiguous between a numeral and an indefinite article. There are many languages in which this is the case. In such cases the two uses can be differentiated based on stress (only the numeral use is stressed) and/or the position of the word in question (it occupies different surface-positions in the two uses). In his 1997 book *Cognitive foundations of grammar*, Heine describes the steps in which the numeral “one” is reanalyzed in some languages into an indefinite article. It would have been good to show where Chinese stands on this cline. As far as I can tell, the assumption of the Candidate was that *yī* is just a numeral, but it would have been good to demonstrate this explicitly, as much of the discussion relies on this assumption. This would be important to clarify also because in Chapter 7 we see examples such as ex. 109, where *yī* is included, but due to the repetition of the classifier, the overall meaning is plural. Now this is clearly incompatible with *yī* on its literal numeral reading, but it would be less special if *yī* also had a use as a number-neutral indefinite article. Note also that languages like Dutch or German have a so-called spurious indefinite article, which is homophonous with the indefinite article and the numeral “een”/ “ein”. It occurs with plural nouns, with non-count nouns, and in definite noun phrases. Thus *yī* in fact looks like a spurious indefinite article when it occurs next to reduplicated classifiers. I believe it would be worthwhile to spin off an independent study from these data of the thesis.

Regarding ex. 76, I wonder if these are measure words (or measure word uses of polysemous words) rather than sortal classifiers. They do not seem to pass the multiplication test mentioned above in connection with Chapter 4.

Regarding exx. 79, 80b, the Candidate writes: “The examples show that the presence of numeral classifiers can influence the interpretation of *yī* ‘one’ to express definiteness and indefiniteness, other than the specific quantity.” (p. 141). I think it is hard to tell if it is the effect of the classifier, as numerals don’t normally occur without a classifier.

This chapter contains the phrase “in English translation” at numerous places. This would seem to suggest that the text was translated from Chinese to English, but we don’t know this. (In fact, the cleaning of the data was partly required because there were ungrammatical phrases in Chinese, and this may suggest that at least some of the texts were translated in the other direction.) The more neutral phrase “in the English equivalent” would be the best choice of words.

Chapter 7 examines the discourse functions of classifiers based on Corpus 3. The results support claims by One-Soon Her that classifiers can be omitted in certain genres in Chinese, and observation that has sadly mostly been ignored in later literature. The claim by Erbaugh that later mentions on nouns may replace a specific classifier by the general classifier *gè* is also supported by the findings.

Regarding Num+Cl-CL+N, I wonder if the two instances of Cl are always identical, or they can be different (though obviously semantically non-contradictory, e.g. *gé* and a specific classifier). I also wonder if anything can come in between the two classifiers. This is not openly addressed, and ascertaining this would probably require probing into native speaker intuitions (which is beyond the scope of the thesis). My questions here probe the issue of whether the double classifier structure is a case of reduplication described in Zheng & Kim (2022, DOI: [10.17250/khisli.39.1.202203.007](https://doi.org/10.17250/khisli.39.1.202203.007)). What the reduplication pattern has in common with the pattern described in the thesis is the ultimate meaning “many”, but Zheng & Kim’s examples do not involve a numeral preceding the reduplicated classifier. I also wonder if the numeral in double classifier constructions is always “one”, or it can be any numeral.

Ex. 108 is supposed to illustrate the deictic use of classifiers, but I’m not entirely convinced that this is what we have here. Both examples include a demonstrative, which is itself deictic, and therefore it is impossible to show, in my opinion, that the classifier also contributes a deictic interpretation. (Note that in articleless languages, the demonstrative is often recruited to contribute definiteness without much deictic contribution, as in ex. 108a.)

Regarding ex. 113, the claim is that it is the classifier that contributes the definite interpretation. I wonder how we can tell, as according to Cheng & Sybesma (2005), bare nouns may also receive a definite interpretation (though this is not forced). In other words: how do we know that the classifier does not combine with a nominal that already has a definite interpretation (as opposed to the classifier itself bringing in the definiteness). Relatedly, I’m not sure that in ex. 114 the definiteness is contributed by the classifier and not by “each”, and in ex. 115 I’m not sure we can show that it is the classifier that expresses definiteness, as a demonstrative is also present. The Candidate is also leaning towards ascribing definiteness to DEM on p. 179.


Overall, both the claim that classifiers express definiteness and the claim the classifiers express *indefiniteness* appear in the thesis (e.g. Chapter 8). It’s hard to imagine that one word could do both of these things. I wonder if we should rather say that classifiers do not contribute to (in)definiteness at all, instead, other elements contribute (in)definiteness to NP, and classifiers are compatible with both definite and indefinite NPs.

As for the Num+N pattern, the two examples in ex. 107 both involve *rén* (see also ex. 122). I am wondering if there are examples with other nouns. This is an interesting issue to address because according to Simpson (2005), the noun “person” is unclassified in many classifier languages. So my question here is whether the omission of the classifier is correlated to the identity of the head noun or not. The discussion under ex. 107 seems to imply that the relevant nouns all have human referents, this perhaps indicates that the answer is “yes”. As a side note, let me point out that there is ongoing work by Nick Huang in which it is claimed that in the Num+N pattern the “N” is, in fact, a classifier, so it is really Num+Cl. He supports this with the observation that the word after the numeral can be reduplicated, which characterizes classifiers but not nouns. This is an analysis that is worth keeping in mind, but probably it could be supported or disproven only with native speaker judgements and not the corpus study method, and is therefore outside of the scope of the thesis.

Chapter 8 concludes the thesis and outlines prospects for further study. In this chapter the word “referential” is used to characterize classifiers, but I think this word applies either to N or NP, not to numeral classifiers directly. Of course, numeral classifiers do contribute semantically to the computation of NP reference, but this is not the same as “being referential” in the technical use of the term.

In summary, the thesis has clear original contributions to the field, and it receives an overall positive evaluation from this reviewer. My recommendation is that the Candidate proceed to the public defense and be conferred the PhD degree.

Budapest, 03 November 2023

A handwritten signature in blue ink, appearing to read 'Dékány É', is positioned above the printed name.

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