A Note on Mandarin Possessives, Demonstratives, and Definiteness

Barbara H. Partee

1. A translation puzzle.

This paper¹ begins from some difficulties in trying to capture in English a range of contrasting examples of possessive phrases in Mandarin.² From there we will be led to a re-examination of the interpretation of certain English definite expressions and more generally to the interpretation of definiteness.

Yang (2004) observes that in Mandarin, an initial possessor phrase (PossessorP) may be followed by a bare noun as in (1), or by a possessee phrase that can be headed by a numeral and classifier, [Numeral + CL + N], as in (2) or by a demonstrative, [Dem + (Numeral) + CL + N] as in (3). (In all the examples in this section, we begin with Yang's own initial glosses and translations³. The interpretation of the examples will be probed after they have been presented.)

(1) Bare Noun

Zhangsan de [maoxianyi] Zhangsan DE_{Poss} sweater 'Zhangsan's sweater(s)'

(2) Possessor DE + [Numeral + CL + N]

Zhangsan de [san jian maoxianyi] Zhangsan DE_{Poss} three CL sweater 'Zhangsan's three sweaters'

(3) Possessor DE + [Dem + (Numeral) + CL + N]

- a. Zhangsan de [na jian maoxianyi] Zhangsan DE*Poss* that CL sweater 'lit. Zhangsan's that sweater'
- b. Zhangsan de [na san jian maoxianyi]

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² I am indebted to Henrietta Yang for bringing to my attention these Mandarin examples, all of which are taken from a December 2004 draft of her University of Texas dissertation (in progress), and for extended discussion of their interpretation. The cited draft is not her final version; she already plans some revisions of some of the points under discussion here. I am grateful for her willingness to let me discuss this version.

³ Yang herself expresses uncertainty about her translations; she is not a native speaker of English, and has said (p.c.) that she is unsure about the differences among some of the candidate translations. Thus the initial translations given for all of these examples should be regarded as quite tentative.

Zhangsan DE*Poss* that three CL sweater 'lit. Zhangsan's those three sweaters'

In examples (4-7), she demonstrates the possibility of the PossessorP attaching 'low', immediately before the noun⁴.

(4) [CL + [Possessor DE] + N]

you [jian [Zhangsan de] maoxianyi] zai jiaoshi li have CL Zhangsan DE*Poss* sweater at classroom in 'There is one of Zhangsan's sweaters in the classroom.'

(5) [Numeral + CL + [Possessor DE] + N]

you [san jian [Zhangsan de] maoxianyi] zai zhuo shang have three CL Zhangsan DE_{Poss} sweater at table top 'There are three sweaters of Zhangsan's on the table.'

(6) [Dem + CL + [Possessor DE] + N]

[na jian [Zhangsan de] maoxianyi] hen piaoliang that CL Zhangsan DE_{Poss} sweater very pretty 'That sweater of Zhangsan's is very pretty.'

(7) [Dem + Numeral + CL + [Possessor DE] + N]

[na san jian [Zhangsan de] maoxianyi shi meiguo zhi de that three CL Zhangsan DE_{Poss} sweater BE America make DE 'Those three sweaters of Zhangsan's are made in the US.'

She notes that when a PossessorP intervenes between a CL and a noun as in (4-7), the reading that emerges is one she calls partitive, following (Huang 1982, Tang 1990). The following minimal pair of examples are from Huang with Yang's slight modification of the gloss (1982, pp.63-64):

- (8) a. [Zhangsan de] san ben shu Zhangsan DE_{Poss} three CL book 'Zhangsan's three books.'
 - b. san ben [Zhangsan de] shu three CL Zhangsan DE*Poss* book 'three of Zhangsan's books.'

(8b) implies that Zhangsan has more than three books⁵; (8a) does not. Yang notes that Huang pointed out that (8a) behaves like a referential or specific nominal phrase and that (8b) behaves like an indefinite noun phrase⁶, supporting this observation by the

⁴ As Yang notes, adjectives and relative clauses can occur in the same positions as the possessors in both the 'high-attachment' examples (Error! Reference source not found.-Error! Reference source not found.) and the 'low-attachment' examples (Error! Reference source not found.-Error! Reference source not found.).

⁵ This was Yang's statement in her draft; but on reflection she has said (p.c.) that this statement is probably too strong, and that the interpretation could also be closer to the English 'three books of Zhangsan's', which is neutral with respect to whether Z. has more than three books.

⁶ Jo-wang Lin (p.c.) notes that the same interpretive difference holds when it is a relative clause or an adjective that occupies these two different positions, rather than a possessor. For detailed discussion of the interpretive difference in the case of relative clauses, and arguments against considering it a matter (Footnote continued on the next page)

fact that (8a) can occur at the sentential subject position and may not appear in the existential construction, as shown in (9), from Huang (p. 64), and that (8b) behaves in the opposite way, as shown in (10), also from Huang (p. 64).

- (9) a. [Zhangsan de san ben shu] zai zher Zhangsan DE*Poss* three CL book at here 'Zhangsan's three books are here.'
 - b. *you [Zhangsan de san ben shu] zai zher EXIST Zhangsan DE*Poss* three CL book at here
- (10) a. *[san ben [Zhangsan de] shu] zai zher three CL Zhangsan DE_{Poss} book at here
 - b. you [san ben [Zhangsan de] shu] zai zher EXIST three CL Zhangsan DE*Poss* book at here 'There are three books here belonging to Zhangsan.'

These examples with their glosses and translations as given by Yang raise some puzzles of interpretation. Let us begin with the last-mentioned examples, (8-10), where the discussion of definiteness and indefiniteness is most explicit. As illustrated in (9-10), the standard test for indefiniteness is the possibility of occurring in the existential *you*-construction and impossibility of occurring as sentential subject in a *you*-less sentence; and the standard test for definiteness (possibly 'specificity' or 'referentiality') is the opposite pair of properties. According to these tests, the example (8a) with initial possessor is definite or specific, the example (8b) with low-attached possessor preceded by Numeral + CL is indefinite (non-specific).

In English, a noun phrase with a definite prenominal possessor is also always definite (leaving predicate noun phrases out of discussion). But on probing further, it turns out that the interpretation of the Mandarin definite or specific NPs in the examples above is not identical to their similar-looking and near-translation English definites. Let's return to example (2), which has the same structure as example (8a). In the case of the English phrase (11) given as its translation, there is a presupposition that Zhangsan has exactly three sweaters.

(11) Zhangsan's three sweaters

of a restrictive vs. a non-restrictive use of the relative clause, see Lin (2003). Lin believes that the interpretation of the relative clause itself does not change in the two positions; Yang similarly argues that the possessor phrase is basically an <e,t> predicate in both cases.

What about Mandarin? It turns out that (2) does not carry that presupposition. But then if we should not translate (2) as (11), how should it be translated? Should it be translated as 'three sweaters of Zhangsan's', which is neutral as to how many sweaters Zhangsan has in all? No, because unlike (2), 'three sweaters of Zhangsan's' is unambiguously indefinite, and can occur in existential sentences with locative codas, as in the good English translation given in example (5). We already saw from the examples in (9) that (8a) and (2) cannot occur in such existential sentences.

This is the first translation puzzle: we have a definite NP in Mandarin and a definite NP in English with what appear to be the same parts in the same arrangement, but they turn out not to be semantically identical; probing their difference should be useful for probing the ingredients of definiteness. We take up this issue in Section 2, where we put these concerns into the broader perspective of the question of whether the implicit definiteness often invoked in the interpretation of possessive noun phrases like "Zhangsan's three sweaters" in languages with and without definite articles is a single universal notion, or whether different languages may have grammaticized (or may use without grammaticizing) somewhat different notions of definiteness.

The second translation puzzle concerns the contrast between different word orders in phrases containing both a demonstrative and a possessive. In these cases it is not obvious that English has two different phrases to use in translating two different Mandarin possibilities; it is not even clear what the semantic difference is, if any,

However, I can find some examples without such an implication. Here is one.

(ii) Wo zai chuang-di xia zhaodao-le meimei de san shuang wazi I under bed under find-Asp sister Rel three pair sock 'I found three pairs of socks of my sister under the bed.

Interestingly, if we add another sentence-final particle *le* to the end of the sentence, the presupposition seems to reappear. (iii) implies that all the contextually relevant three (and only three) socks have been found.

(iii) Wo zai chuang-di xia zhaodao-le meimei de san shuang wazi **le**I under bed under find-Asp sister Rel three pair sock Particle
'I have found the three pairs of socks of my sister under the bed.'

(The *le* that is attached to the verb is usually understood as a perfective marker, whereas the sentence-final *le* is somewhat similar to the present perfect in English.) So the problem of the presupposition seems to be more complicated than what we thought. The tense/aspect also plays a role here."

I record these interesting comments here but am not in a position to respond to them; I will continue to follow the judgments provided to me by Yang (p.c.).

⁷ Jo-wang Lin comments in an e-mail message (p.c.): "I am not so sure that the Chinese counterpart does not have the presupposition. At least, in many cases, it sounds to me that it has such an implication. This is especially clear when the modifier is a relative clause.

⁽i) a. Mama song gei ta de san jian maoxianyi bujian le Mother give to her Rel three Cl sweater missing Particle 'The three sweaters that mother gave to her are missing.'

b. Wo zhaodao-le mama song gei ta de san-jian maoxianyi le I find-Asp mother give to her Rel three-Cl sweater Particle 'I found the three sweaters that Mother gave to her.'

between the word order possessive-demonstrative-noun and the word order demonstrative-possessive-noun. Section 3 is devoted to this problem.

The third puzzle is a related one concerning partitivity. The indefinite example (8b) is translated as "three of Zhangsan's books" and called a partitive, but when the same example is used in the existential sentence (10), it is translated as "three books belonging to Zhangsan", and probably could also have been translated as "three books of Zhangsan's", parallel to the translation given for the isomorphic example (5). Similar questions can be raised about all of the examples in which the possessor is "attached low", i.e. is preceded by Numeral + CL or by Demonstrative + CL, as in all of (4-7). Which form of translation best captures the meaning of the Mandarin lowattached possessors, and what indeed is the difference among those English phrases? The issue here is a subtle one, and one that has been controversial for English; it appears to be at least partly a matter of whether a definite set of Zhangsan's books is in some sense 'given'. We will suggest that both the Mandarin indefinites in (4-5) and the demonstrative phrases with low-attached possessors in (6-7) are best translated with postposed "of Zhangsan's" and not as true partitives. This issue will not receive a section of its own, but will be discussed in connection with the examples in which it arises.

Section 4 is a brief conclusion, acknowledging the tentativeness of the conclusions reached and inviting further research on the issues that have been identified here.

2. Definites without uniqueness/maximality presupposition

The three examples of definite possessive phrases, with phrase-initial possessors, were introduced above as (1-3), repeated below as (12-14). The first problem described above came to light with example (2) (= 13), where the English phrase carries a presupposition that Z. has exactly 3 sweaters and the Mandarin one does not. Example (3) (=14) also presents a problem, but a different one, namely that we do not know from the "literal" translations what the phrases actually mean, and how they differ from the demonstrative phrases in (7) with low-attached possessors.

(12) Bare Noun

Zhangsan de [maoxianyi] Zhangsan DE_{Poss} sweater 'Zhangsan's sweater(s)'

(13) Possessor DE + [Numeral + CL + N]

Zhangsan de [san jian maoxianyi] Zhangsan DE_{Poss} three CL sweater 'Zhangsan's three sweaters'

(14) Possessor DE + [Dem + (Numeral) + CL + N]

- a. Zhangsan de [na jian maoxianyi] Zhangsan DE*Poss* that CL sweater 'lit. Zhangsan's that sweater'
- b. Zhangsan de [na san jian maoxianyi] Zhangsan DE*Poss* that three CL sweater 'lit. Zhangsan's those three sweaters'

As for (12), which should be the simplest case, any difference there may be between the Mandarin phrase and its English translation is not easily apparent and will require sophisticated methods of probing to ascertain. Is there a presupposition, in either the English or the Mandarin versions, that Zhangsan has just one sweater, or if plural, that the reference is to all of Zhangsan's sweaters? Such a presupposition is very slippery. It is not as salient as the presupposition of "threeness" in the English version of $(13)^8$, perhaps because no cardinal is explicitly included; compare the strong presupposition of uniqueness in "Zhangsan's one sweater". And even if there is such a presupposition in at least the English "Zhangsan's sweater", it is very easy to accommodate, for instance by assuming domain restriction to a relevant domain in which there is only one sweater of Zhangsan's, even if he may have more outside of that domain. The presupposition seems so non-salient, if it exists at all, in English that it is sometimes denied. The arguments concerning (2) (= 13) will lead us to predict that (12) in Mandarin lacks a uniqueness/exhaustivity presupposition, whereas the English version carries such a presupposition (except when the whole NP is predicative). But I do not know how to find reliable tests to try to confirm or disconfirm this prediction.

So let us initially focus on (13) (=2), where the contrast between Mandarin and English seems clearest. What does it mean to say that the Mandarin noun phrase is definite, but does not presuppose that Zhangsan has exactly three sweaters? Is there any English NP with similar properties? Yes, in fact there is a relevant use of demonstrative *that/those*, especially *those*, which is unstressed and never accompanied by any pointing gesture, and which is also not anaphoric, at least not anaphoric to any antecedent explicitly present in the preceding speech or text. The following examples are meant to be suggestive; they are particularly suited to contexts in which they are 'harking back' to some earlier discussion, but the entities referred to have not been mentioned in the immediately preceding context, nor are they being pointed to.

- (15) a. Those three books of yours are still in my office.
 - b. I really didn't like that one argument of his, and I told him so.

These uses might well be called discourse-anaphoric: they could be paraphrased in ways that would produce an exhaustive/unique description by adding a metalinguistic phrase such as "that I told you about", "that we were talking about earlier". The style is somewhat colloquial, and there is some presumption of familiarity – the speaker conveys confidence that the hearer will recognize the intended referent, although it

⁸ One indication of the difference in strength of presuppositionality in English between 'Z's sweater' and 'Z's three sweaters' can be observed from the fact that I who have three sons easily say things like "My son helped me with that" but never "My two sons helped me with that". The latter would strongly presuppose that I have exactly two sons, but the former does not so strongly presuppose that I have exactly one. It is enough that there be one relevant one, although I'm not really sure why.

⁹ Henrietta Yang (p.c.) has warned me that nominal phrases including the numeral *yi* 'one' are very tricky. If an explicit *yi* + Classifier is added to (**Error! Reference source not found.**) (=**Error! Reference source not found.**), the resulting phrase actually has a strong presupposition that Z. has more than one sweater, according to Yang. I have no idea why this should be the case, and don't know if anyone does. I will simply note the problem and stay away from this example.

hasn't been mentioned in the immediate context. Let me dub this use "familiar *that/those*". 10

We can see the absence of presupposition of exhaustivity by contrasting (15b) with (16) below; (16) does presuppose that he gave only one argument, but (15b) is compatible with his having given several arguments, although I don't think it requires it. (Perhaps (15b) is a marked structure, and using it rather than (16) creates a weak implicature to the effect that the conditions for using (16) do not apply.)

(16) I really didn't like his one argument, and I told him so.

This "familiar" use of the demonstrative *that/those* is different from the indefinite *this/these* studied by Prince (1981) in at least two ways: (i) NPs built with this use of *that/those* pattern as definites rather than indefinites, occurring in existential *there*-sentences only on 'list' readings and perhaps other kinds of tolerated uses of definites; and (ii) whereas NPs built with indefinite *this* are understood as 'speaker-known, hearer-unknown or hearer-irrelevant', those built with "familiar *that/those*", as the chosen name suggests, are understood as familiar to both hearer and speaker.

As far as I know, there has been relatively little study of this "familiar *that/those*". Lyons (1999 p.284), citing his earlier work (Lyons 1995), points to something similar when he says:

as Lyons (1995[c]) argues, generics of this kind [bare plurals] are not incompatible with Dets (as the description "bare" implies they should be), since they may contain a demonstrative, interpreted as non-restrictive and expressing emotional distance, and demonstratives only occur in the specifier in English:

(17) I'm all in favour of people cycling more, but **those mountain bikes** are a nuisance in the country.

I'm not sure whether this use of *those* expresses emotional distance; I am more inclined to suppose that it belongs together with what Robin Lakoff (Lakoff 1974) called "emotional deixis" used to express "emotional solidarity" between speaker and addressee, which also involves a presupposition of shared familiarity with the referent. That is presumably what we have in the annoying use of presumptuous fake familiarity in advertisements that invite you to buy their product for "that certain someone"; and NPR hosts sometimes use a milder form of it during their fund drives and exhort the hearer, "Don't put it off any longer -- make that phone call right now." These certainly do not express emotional distance, but something more like intimacy, which may be inappropriate. The pseudo-intimacy in the "annoying use" seems to come from approximate paraphrasability by something like "the person you and I

(i) means that the contextually relevant three books (that both you and I are familiar with) are in my office. It does not imply that you have only three books."

¹⁰ Jo-wang Lin comments in an e-mail message (p.c.): "The following sentence can be used in exactly the situation that you described.

⁽i) Ni-de san-ben shu hai zai wo-de bangongshi your three-Cl book still in my office 'The three books of yours are still in my office.'

It is interesting that this 'weak' (obligatorily unstressed) use of English demonstrative *those* does indeed seem closer to the Mandarin implicit definite (without article or demonstrative) than the English definite article.

know you're thinking of", or "the phone call you and I know you've been thinking of making". But of course it's not intrinsic to that use of the demonstrative to be annoying, since it can be perfectly appropriate in other contexts. My dentist can perfectly well greet me in his examining room with "Well, how's that tooth been doing?", and as far as my teeth go, my dentist probably has a more intimate relation with them than even I do. As Wolter (2004) notes, the presumably-shared emotional affect can be either positive or negative, but mutual familiarity is definitely presupposed. That is probably the source of the annoyance when it's used by an impersonal advertiser.

I don't know how these various non-demonstrative, not-immediately-anaphoric uses of that/those relate to one another or how many senses/uses need to be distinguished; the 'familiar that/those' in (15) seems, for instance, to lack the emotive force of Lakoff's 'emotional deixis', and I do not know whether her class should be broadened or whether these are two separate senses/uses. But what they all seem to have in common are definiteness, presupposed familiarity, and non-exhaustiveness. And these are the properties that seem to characterize the "definiteness feature" of the Mandarin example (2) (= 13). There is probably no exact translation of those examples into English. The hypothesis I would suggest is that what is alike about Mandarin (2) (= 13) and English "Zhangsan's three sweaters" is that the possessor has raised into a D position¹¹ and by virtue of the semantics of that position is interpreted as definite; whereas Mandarin and English differ in which semantic properties are crucial for basic definiteness. In English, the definite article usually signals both uniqueness/exhaustivity and familiarity (see Abbott in press), and it seems that perhaps the various uses of the demonstratives all share a cancellation of the uniqueness/exhaustivity presupposition. But the Mandarin definite that arises in the interpretation of the Mandarin NP-initial possessor does not share all the properties of the English definite article: it signals familiarity but does not carry a presupposition of uniqueness/exhaustivity.

This hypothesis is compatible with the proposals made by Kim (2001, 2004) specifically for Mandarin and for Korean, using the term "specific" rather than "definite": Kim proposes that specific noun phrases in these languages are DPs, while non-specific ones are NPs. The choice of the term "specific", used by both Kim (2001, 2004) and Huang (1982), may result from their recognition that the semantics

¹¹ Both Jo-wang Lin (p.c.) and Henrietta Yang (p.c.) have raised problems for the suggestion that the Mandarin possessor moves into a D position when it occurs noun-phrase-initially. Lin reminds me that relative clauses behave the same way, causing a definite interpretation when initial and an indefinite interpretation (if there is nothing else to trigger a definite one) when occurring following the Num + CL sequence. And it is not plausible that a relative clause would move into a D position. Yang reminds me that an initial possessor triggers a definite interpretation only when the possessor itself is definite; and it would be implausible to give definite and indefinite possessors very different syntactic treatments.

While I consider the issue of the (in)definiteness of possessive phrases containing indefinite or quantified possessors to be actually quite a complex one (see for instance the discussion in Vikner and Jensen (2002)), and believe that there is the equivalent of a definite article embedded inside the interpretation of such possessive phrases, I concede that an explanation in terms of raising the possessor into the D position is implausible for Mandarin, most importantly because of the fact that other <e,t>-type modifiers (relative clauses, adjectives) show the same behavior as possessors. I still believe that definiteness is in some sense projected just when there is a 'high-attached' possessor, relative clause, or adjective, but I must retreat to an agnostic position about how this is accomplished, and in particular about how it relates to the syntax.

of these phrases is not identical to the semantics of prototypical English definite phrases, since the Chinese and Korean counterparts lack the uniqueness/exhaustivity presupposition¹².

Lyons (1999) argues instead that the syntactic DP configuration is entirely absent from Mandarin and Korean. He believes that the notions of definiteness and indefiniteness are present in Mandarin and are seen in the definiteness effects in Huang's examples (9-10); he reserves the term 'specific' for *in*definites whose referent is presumed known to the speaker. Lyons (1999) is partly similar to Kim's analysis in that he proposes to consider the D position to be projected only for definite NPs, for English and for all languages that have grammaticized definiteness; he takes D correspond to a grammaticization of the property "Definite" rather than a projection of the "word class" Determiner. Noun phrases without a DP projection may be just NPs, or may have a higher functional projection such as KP "case phrase". But Lyons considers Mandarin and Korean to be languages without grammaticized definiteness and without DP. He argues that the definiteness effects that are found in such languages, including those noted above in connection with examples (9-10), represent a semantico-pragmatic notion of definiteness as identifiability¹³ (close to what we have been calling familiarity), correlated with topichood, and that such nongrammaticized definiteness typically fails to involve any presupposition of uniqueness/exhaustivity (which he calls "inclusiveness"). (Russian on his account is similar, lacking a DP for full noun phrases, but differs in having a DP for pronouns.)

Yang (2004) projects DP for both definite and indefinite Mandarin noun phrases, but with a variety of null D's that have different syntactic and semantic properties. The differences between definites (specifics) and indefinites that Kim tries to account for with presence vs. absence of DP projection, Yang tries to account for with a variety of null D's, and Lyons tries to account for with no DP in either but differences in information structure position and/or differences within other noun phrase projections triggered by the presence of overt demonstratives or number phrases or the like. But it is interesting that Lyons's analysis of English has much in common with Kim's account of Mandarin and Korean. The degrees of success of these differing syntactic accounts go far beyond the scope of this note. But on the semantic side, Lyons's proposal that non-grammaticized definiteness normally lacks the presupposition of uniqueness/exhaustiveness is a very appealing one. If Lyons is right, then it makes sense to refer to the Mandarin definites/specifics as definites, and their difference from the interpretation of English definites marked with the definite article *the* is not unexpected.

As an informal test of Lyons's hypothesis, I have checked with one Russian informant¹⁴ and carried out some Google searches, and have discovered (to my

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¹² And while Lyons (1999) argues that Mandarin Chinese lacks a grammaticized category of definiteness and has no DP for either definite or indefinite noun phrases, he does observe that definite articles in various languages may take on a range of possible interpretations, sometimes going so far as to include specificity, something normally associated with indefinites. I don't believe he would use this term for the definite interpretations of Chinese noun phrases, however.

¹³ "Identifiability" is also the term preferred by Farkas (2002), as the core of what definiteness generally requires cross-linguistically.

¹⁴ Thanks to Vladimir Borschev for discussion of the interpretation of Russian examples analogous to

¹⁴ Thanks to Vladimir Borschev for discussion of the interpretation of Russian examples analogous to the cited Mandarin examples.

surprise, since I speak Russian fairly well and have even some work on possessives in Russian jointly with Russian colleagues; see (Borschev and Partee 1999, In press, Partee and Borschev 2003)) that Russian analogs of the Mandarin definite NPs (2) and (8a) are interpreted as in Mandarin, without the exhaustivity presupposition, and not like the English (11), as I had always assumed. This finding gives added support to Lyons's hypothesis.

3. Combinations of demonstrative and possessive

For Mandarin NPs in (3a-b) (=14a-b), containing a possessor preceding a demonstrative, we have a basic puzzle of interpretation. One possibility is that they can be understood as synonymous with English NPs with a demonstrative determiner and a post-nominal possessive, as in (18a-b).

- (18) a. Zhangsan de [na jian maoxianyi] Zhangsan DE_{Poss} that CL sweater 'that sweater of Zhangsan's'
 - b. Zhangsan de [na san jian maoxianyi] Zhangsan DE*Poss* that three CL sweater 'those three sweaters of Zhangsan's'

But those translations were used for the Mandarin NPs with demonstrative determiner preceding a low-attached possessor, (6-7). What is the difference in meaning between Mandarin (3a-b) (=14a-b), where the possessor precedes the demonstrative, and Mandarin (6-7), where the demonstrative precedes the possessor? In the case of numeral and possessor, the two different orders gave meanings that differed in definiteness. But in the case of demonstrative and possessor, the NP is definite with either order, so the difference must reside elsewhere.

Let me take a minimal pair provided by Henrietta Yang (p.c.) and try out some hypotheses about them.

- (19) Zhangsan de [na san ben shu] Zhangsan DE_{Poss} that three CL book 'lit.: Zhangsan's that three books
- (20) na san ben [Zhangsan de] shu that three CL Zhangsan DE_{Poss} book 'lit.: that three books of Zhangsan's'

Hypothesis 1: In (19) Zhangsan is not part of the "restrictor" (first argument) to which the demonstrative applies, so the speaker is not talking about Zhangsan's books. Any other books of Zhangsan's are irrelevant, hence there is no presupposition or implicature about whether he has other books. This hypothesis is evidently correct (Yang, p.c.).

Hypothesis 2: Also in (19), perhaps the cardinal *san* 'three' is part of the restrictor, suggesting that there are other sets of three books in the relevant context, so that without the speaker's mentioning Zhangsan, or pointing, or providing some other contextual clues, the hearer might not know which three books are intended. This hypothesis, of which I was quite uncertain, also seems to be correct (Yang, p.c.).

Hypothesis 3: Perhaps the possessor in (19) serves in lieu of pointing or other contextual cues that normally accompany a demonstrative; perhaps the possessor is then in complementary distribution with pointing or other contextual cues. No, this hypothesis is incorrect, according to Yang (p.c.); (19) needs an accompanying deictic gesture (or some other cues) just as much as the demonstrative phrase that would result if the possessor were not there.

Hypothesis 4: In (20), the demonstrative needs, as usual, an accompanying gesture or other contextual cue. That is correct (Yang, p.c.).

Hypothesis 5: In (20), the possessor is part of the "restrictor", so the speaker is talking about Zhangsan's books. This is correct, according to Yang (p.c.). But the three books are not necessarily a proper subset of Zhangsan's books, are they? The proposition that he has additional books may be a naturally invited inference, but is not really presupposed or entailed, is it? That's correct, according to Yang (p.c.). So the translation given in (20) is a better one than the more strictly partitive "those three of Zhangsan's books".

Yang (p.c.) asserts that if the speaker *knows* that Zhangsan has exactly three books, she would be more likely to use (19), and if she *knows* that Zhangsan has more than three books, she would use (20). If the speaker doesn't know, or if the question is totally irrelevant, either could be used. Just what the difference is in that case where either form can be appropriately used is not completely clear.

In the case where the speaker does know that Z. has more than three books, the partitive translation "three of Zhangsan's books" may be appropriate; but even in that case the less presuppositional translation "three books of Zhangsan" is presumably still appropriate, just as in English it's normal to speak of "some friends of mine" without any suggestion that that set of friends exhausts my friends. The postposed possessor construction in English often invites an inference of non-exhaustivity, i.e. that I have more friends or Zhangsan has more books, but it is an easily cancelable invited inference. The Mandarin construction with low-attached possessor seems to have the same property.

Hypothesis 6: With the order as in (20), san 'three' could be more closely associated semantically with the noun or with the demonstrative. In the latter case, the speaker is indicating which of Zhangsan's books she is picking out: "those three", i.e. some indicated three books out of a larger set of books of Zhangsan's. In the former case, the situation includes various piles (or other groupings) each containing three books of Zhangsan's, and the speaker is picking out one such pile. (Compare "THAT red book", picking one from among several red books, with "that RED book", picking out one from among several books, using "red" as an added cue to help indicate which one I'm pointing at.) This hypothesis was confirmed by Yang (p.c.).

This final observation, together with the failure of Hypothesis 3, suggests that phrases containing a demonstrative together with additional modifiers may have an internal focus structure which is constrained by word order. It appears that whether the demonstrative is leftmost or not does not change the status of the whole phrase as a demonstrative phrase; the differences in interpretation seem to involve differences in which parts of the phrase are part of the "restrictor", the set from which a selection is

being indicated, and which parts are "helping the demonstration", adding properties to help the hearer identify the intended demonstratum¹⁵.

These thoughts are inspired in part by the analysis that Wolter (2004, In progress) provides for demonstratives, assigning each demonstrative determiner two property-type arguments, one a restrictor and one providing a specification of the selected entity or set. In Wolter's analysis, the specifying property in the case of deictic or anaphoric demonstratives is the property of being identical to a salient entity; she discusses a third type, the "explicit demonstratives", in which the specifying property is provided by a postnominal phrase, as in (21) below.

(21) That hero who kills the dragon will inherit half the kingdom (Wolter 2004)

Is there a way for expressed predicates to be interpreted as "helping" to provide the 'specifying' argument, rather than fully providing it? If we can do that, then we can propose that in the Mandarin demonstratives, the real "specifying argument" is provided by a deictic gesture, as in the case of Wolter's deictic demonstratives. Then, appealing to the distinction between restriction and saturation proposed by Chung and Ladusaw (2003), we can say that any predicates to the left of the demonstrative, and optionally a predicate or predicates immediately to the right of it, may restrict that argument without saturating it.

The optionality in treating some of the predicates found within a demonstrative description as part of the "restrictor argument" or as serving to "restrict" the "specifying argument", and the very similarity of those roles, if this account is on the right track, could help to explain the fuzziness of intuitions concerning the semantic or pragmatic differences connected with different choices of word order. Analogous distinctions within English demonstrative descriptions may be expressed with stress and intonation, and a neutral intonation may leave room for more than one interpretation with respect to which parts of the NP express the restrictor argument and which parts are intended as helping with the specification of the intended demonstratum. This is illustrated in (22) below, in which the neutral-intonation variant (22a) has an interpretation which is underspecified relative to the more specific interpretations in (22b-e). I am not sure whether other pronunciations with stress on words that are not initial substrings of the phrase are possible except as contrastively stressed. The ones given are the ones that seem to me most basic, and I am conjecturing that there is a similar range of possible interpretations in Mandarin, constrained by word order, and with any pre-demonstrative modifier necessarily interpreted as helping to interpret the deictic gesture rather than being part of the restrictor.

- (22) a. I want that big red ball.
 - b. I want THAT big red ball. (big red ball is restrictor argument: picking out one among a set of big red balls.)
 - c. I want that BIG red ball. (*red ball* is restrictor argument: picking out one among a set of red balls, and I'm helping you interpret my deictic gesture by letting you know that the one I want is a big one.)

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¹⁵ Yang's application of Wolter's idea suggested Hypothesis 3, that a possessor preceding a demonstrative might serve in lieu of a pointing, a hypothesis that proved to be too strong.

- d. I want that BIG RED ball. (*ball* is restrictor argument: picking out one among a set of balls, and I'm helping you interpret my deictic gesture by letting you know that the one I want is a big red one.
- e. I want that BIG RED BALL. (no explicit restrictor argument: picking out one among a set of entities, and I'm helping you interpret my deictic gesture by letting you know that the entity I want is a big red ball.)

This suggested partial account of the Mandarin noun phrases containing both possessors and demonstratives seems to be consistent with Yang's proposal to treat possessors in Mandarin as basically of type <e,t>, with syntactic and semantic behavior quite parallel to that of adjectives and relative clauses. And adjectives and relative clauses, as noted earlier, can also precede a demonstrative determiner in Mandarin, presumably with the same function of restricting the argument whose value is provided principally by the deictic gesture. In informal terms, such an argument seems to have the function of providing an aid to the hearer in disambiguating the speaker's deictic gesture.

4. Implications for the ingredients of definiteness

It has often been observed that definite articles are very frequently diachronically derived from demonstratives (C. Lyons 1999, J. Lyons 1975). C. Lyons (1999) argues that the pragmatic concept of identifiability may play a part in all languages, but the grammatical category of definiteness, which he links with the syntactic projection of DP, does not. The comparisons drawn in this paper between some close but not identical constructions in Mandarin Chinese, which arguably lacks the grammatical D category, and English, which has it, have brought to light some interesting properties of demonstratives in the two languages and of unmarked notionally definite noun phrases in Mandarin. If David Kaplan (1978) is correct, then contra Kripke (Kripke 1977), the English definite article the sometimes has a use whose properties are closer to the properties of demonstratives than to the properties commonly ascribed to the classic definite determiner. And on the other hand, the weak, unstressable, familiarity-signalling use of English that/those discussed in Section 2 above seems to have much in common, if not with the English definite article, then with the understanding of definiteness in the article-less definite expressions in Mandarin Chinese, with pragmatic familiarity or identifiability as the central notion and no presupposition of uniqueness/exhaustiveness. Both the Kaplanian the and the 'weak' that/those involve familiarity and identifiability, and lack presuppositions of uniqueness/exhaustiveness. The same appears to be true of Mandarin definite NPs (modulo the caveats expressed in footnote 7), which presuppose familiarity but only weakly if at all implicate uniqueness/exhaustiveness. These observations thus add further evidence in support of the conclusion expressed by Farkas (2002), Lyons (1999), and others that identifiability is the concept most central to definiteness, and to the observation of Lyons that once definiteness is grammaticized, it does not always stay tied directly to the pragmatic/semantic properties that most centrally motivated it.

Our exploration in Section 3 of the Mandarin expressions containing demonstratives and possessors in different word orders, described by Yang (2004), while inconclusive, has led to the suggestion of an account building on two sources. One

ingredient is Wolter's analysis of demonstrative determiners (Wolter 2004) as taking two arguments, a restrictor argument (the set from which the demonstrative is selecting an element or elements) and a specificational argument, possibly filled by a deictic gesture or an anaphoric link to an antecedent, possibly filled by verbal material. The other ingredient is Chung and Ladusaw's theory of saturation and restriction. Our suggestion is that the role of a pre-demonstrative predicate in Mandarin, whether a possessor or a relative clause or adjective, is to restrict but not saturate the specificational argument of the demonstrative determiner, and that the same may be true of a stressed leftmost adjective in demonstrative phrases in English like those in (22) above.

It is to be hoped that more intensive work on a wider range of languages will be able to confirm or disconfirm the hypotheses tentatively advanced here, and to bring further related issues to light that will enrich our understanding of grammaticized and non-grammaticized definiteness, of the nature of demonstrative expressions, and of the degree of variation among languages in the structure and interpretation of definite and indefinite noun phrases.

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