

Can noun modifiers be stranded or extracted in Mandarin?

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Abstract. This paper addresses the question of whether noun modifiers can be stranded or extracted in Mandarin. I argue that there is no positive evidence that noun modifiers can be stranded in Mandarin, and that noun modifiers cannot be extracted in Mandarin. Specifically, I show that the so-called “split NP” constructions, which are often taken to involve stranding of a noun modifier, should be subsumed under a phenomenon I refer to as “split partitivity”. I further show that “split partitivity” does not involve left-branch extraction of a noun modifier, but involves extraction from Spec, DP, the “escape hatch” for extraction.

Keywords. noun modifier; stranding; left-branch extraction; escape hatch; Mandarin

1. Introduction. This paper addresses the question of whether noun modifiers can be stranded or extracted in Mandarin.

Regarding whether noun modifiers can be stranded in Mandarin, positive answers have been given in the literature. For example, Pan & Hu (2000) take the so-called “split NP” construction in (1-a) to be derived from (1-b).

- (1) a. “*Split NP*” in *topic-comment construction*
 Haizi, wo renshi Lisi de (na-liang-ge) e_{haizi}.
 child I know Lisi DE that-two-CL
 ‘Children, I know (those two) (children) of Lisi’s.’
 b. Wo renshi Lisi de (na-liang-ge) haizi.
 I know Lisi DE that-two-CL child
 ‘I know (those two) children of Lisi’s.’

In (1-a), the NP “children” is a topic linked to a DE-marked noun modifier “Lisi DE” in the comment clause. Sentences (1-a) and (1-b) are synonymous: in (1-b), “Lisi DE” modifies the NP “children”; hence, in (1-a), “Lisi DE” can be analyzed as a stranded modifier of the topicalized NP “children”. In other words, if (1-a) is indeed derived from (1-b), then the split NP phenomenon provides positive evidence that noun modifiers can be stranded in Mandarin.

In order to answer the question of whether noun modifiers can be extracted in Mandarin, I will investigate a phenomenon that I refer to as *split partitivity* (henceforth SP). As shown in the SP construction in (2-a), “among (those ten) children”, a post-positional phrase headed by “among” (henceforth “among”-PP) or “(those ten) children”, a definite DP that denotes the “whole” in a part-whole relation (henceforth “whole”-DP) is separated from a partitive phrase (that denotes a subset of (those ten) children) (cf. Chen 2020).

- (2) a. *SP in topic-comment construction*
 (Zai) (na-shi-ge) haizi (zhong), wo renshi Lisi de (na-liang-ge) (haizi).
 at that-ten-CL child among I know Lisi DE that-two-CL child
 ‘(Among) (those ten) children, I know (those two) (children) of Lisi’s.’

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- b. Wo renshi [(zai) (na-shi-ge) haizi zhong de] Lisi de (na-liang-ge) (haizi).
 I know at that-ten-CL child among DE Lisi DE that-two-CL child
 ‘I know (those two) (children) of Lisi’s among (those ten) children.’

Sentences (2-a) and (2-b) are synonymous. In the partitive phrase in (2-b), “(those ten) children”, the “whole”-DP is in the “among”-PP, a DE-marked modifier of the partitive phrase (that denotes a subset of (those ten) children); “Lisi DE”, too, modifies the partitive phrase. Similarly, in (2-a), with more phonologically overt material, it is evident that “Lisi DE” modifies a partitive phrase (that denotes a subset of (those ten) children). The partitive phrases in (2-b) and (3) together show that the “among”-PP, as a noun modifier, can precede or follow other noun modifiers: in (2-b), the “among”-PP precedes “Lisi DE”; in (3), the “among”-PP follows “Lisi DE”.

- (3) [Lisi de] [(zai) wo renshi de haizi zhong de] na-liang-ge (haizi).
 Lisi DE at I know DE child among DE that-two-CL child
 ‘those two (children) of Lisi’s among the children I know.’

Understanding the nature of SP is key to answering the question of whether noun modifiers can be extracted in Mandarin. If the “among”-PP or “whole”-DP in the SP construction in (2-a) is a base-generated topic, which is independently attested in Mandarin, then the SP phenomenon does not provide positive evidence that noun modifiers can be stranded in Mandarin. However, if (2-a) is derived from (2-b) via left-branch extraction of a noun modifier (since the “among”-PP is a noun modifier in (2-b) and (3)), then SP does provide positive evidence that noun modifiers can be extracted in Mandarin.

In this paper I will make five claims: First, in section 2, I will claim that the so-called “split NP” phenomenon can be subsumed under SP, while the stranding analysis of “split NP” cannot account for the broader SP phenomenon. Hence, “split NP” does not provide positive evidence that noun modifiers can be stranded in Mandarin, but should be analyzed as one form that SP can take. To support this claim, I will show that in apparent “split NP” constructions, the seemingly stranded noun modifier cannot always be analyzed as a modifier of the putative extracted NP, but can always be analyzed as a modifier of a partitive phrase.

My second claim, which I will defend in section 3, is that a base-generation analysis of SP is inadequate, and that SP may involve extraction from a partitive phrase. Specifically, I will show that SP is sensitive to island-constraints, subject to strong crossover/principle C reconstruction effects and shows principle A reconstruction effects. I will also show that SP is available in the passive BEI- and causative BA-constructions where a base-generation analysis is ruled out.

I will probe the nature of SP further in section 4. My third claim, which I will defend in section 4.1, is that left-branch extraction of noun modifiers is generally banned in Mandarin, and that SP is no exception to the general ban on left-branch extraction of noun modifiers in Mandarin. Specifically, I will show that the “among”-PP is not extractable when merged in an adjunct position, and I will assume, following Bošković (2005), that the ban on left-branch extraction of noun modifiers that are adjuncts follows from the existence and phasehood of DP: assuming that Mandarin has DP and DP is a phase, extraction from DP must proceed through Spec, DP; but noun modifiers that are adjoined to D’ cannot move to Spec, DP, due to anti-locality constraints, hence they cannot be extracted.

Building on the assumption that Mandarin is a DP-language, I will further claim, in section 4.2, that SP involves extraction from Spec, DP, the “escape hatch” for extraction. Specifically,

SP is licit when the “among”-PP or “whole”-DP is base-generated in and extracted from Spec, DP of the partitive phrase. To support this claim, I will show that SP is blocked when Spec, DP is occupied; this is expected if the “among”-PP or “whole”-DP is (base-generated in and) extracted from Spec, DP of the partitive phrase.

Lastly, in section 4.3, I will account for the distribution of SP. I will claim that when the “whole”-DP is base-generated in Spec, DP of the partitive phrase, it must be extracted because it cannot be licensed by D⁰, but it can be licensed in a case or topic position in a SP construction; hence, SP is expected to be generally available in constructions where A- or A'-movement is involved (cf. Chen 2020).

I conclude that there is no positive evidence that noun modifiers can be stranded in Mandarin, and that noun modifiers cannot be extracted in Mandarin in section 5.

2. “Split NP” as split partitivity. In this section, I make the case the so-called “split NP” phenomenon can be subsumed under SP, while the stranding analysis of “split NP” cannot account for the broader SP phenomenon.

Recall that in the so-called “split NP” construction in (4), “Lisi DE” can be analyzed as a stranded modifier of the topicalized NP “children”.

- (4) Haizi, wo renshi Lisi de (na-liang-ge) e_{haizi}.
 child I know Lisi DE that-two-CL
 ‘Children, I know (those two) (children) of Lisi’s.’

But the “split NP” phenomenon can be subsumed under SP. Note that (4) is a form that the SP construction in (5) can take. With more phonologically overt material, it is evident that in (5) “Lisi DE” modifies a partitive phrase (that denotes a subset of (those ten) children). Thus, in (4), the seemingly stranded noun modifier “Lisi DE” can also be analyzed as a modifier of a partitive phrase (that denotes a subset of children).

- (5) (Zai) (na-shi-ge) haizi (zhong), wo renshi Lisi de (na-liang-ge) (haizi).
 at that-ten-CL child among I know Lisi DE that-two-CL child
 ‘(Among) (those ten) children, I know (those two) (children) of Lisi’s.’

Furthermore, there are apparent “split NP” constructions that must be analyzed as SP constructions. Consider (6): according to the stranding analysis, (6-a) is derived from (6-b). But (6-a) and (6-b) are not synonyms: in (6-a), “Lisi DE” cannot be analyzed as a modifier of the topic DP “those ten children”, and must be analyzed as a modifier of a partitive phrase (that denotes a subset of those ten children).

- (6) a. Na-shi-ge haizi, wo zui xihuan Lisi de e_{haizi}.
 that-ten-CL child I most like Lisi DE
 ‘Those ten children, I like (children) of Lisi’s the most.’
 b. Wo zui xihuan Lisi de na-shi-ge haizi.
 I most like Lisi DE that-ten-CL child
 ‘I like those ten children of Lisi’s the most.’

The stranding analysis of “split NP” also cannot account for (7-a), where it appears that “Dickens DE” is stranded by the NP modified by “Lisi DE” in the topic position. But as shown (7-b), “Dickens DE” cannot modify an NP already modified by “Lisi DE”. Thus, it must be the case that in (7-a) “Dickens DE” does not modify the topic NP, but is a modifier of a partitive phrase

(that denotes a subset of the topic NP).

- (7) a. Lisi de shu, wo zui xihuan Digengsi de e_{shu}.
Lisi DE book I most like Dickens DE
'Books of Lisi's, I like (books) by Dickens the most.'
- b. *[Digengsi de] [Lisi de] shu
Dickens DE Lisi DE book
INT: 'books of Lisi's by Dickens'
- c. [Lisi de] [Digengsi de] shu
Lisi DE Dickens DE book
'books of Lisi's by Dickens'

Because the stranding analysis of "split NP" cannot account for the broader SP phenomenon, I claim that "split NP" does not provide positive evidence that noun modifiers can be stranded in Mandarin, but should be analyzed as one form that SP can take.

3. The inadequacy of a base-generation analysis of split partitivity. In this section, I consider a base-generation analysis of SP. I claim that it is inadequate, and that SP may involve extraction from a partitive phrase.

It is commonly accepted that topics in Mandarin may be base-generated or derived. In a nutshell, derived topics in Mandarin are sensitive to island-constraints, subject to strong crossover/principle C reconstruction effects and show principle A reconstruction effects, while base-generated topics do not have these properties. Specifically, Huang, Li & Li (2009) present the following contrast between "gapped" topic-comment constructions where the topic is linked to a gap in the comment clause and "gap-less" topic-comment constructions where the topic is linked to a pronoun (or an epithet) in the comment clause. First, when the gap or the pronoun (or the epithet) in the comment clause is embedded in a complex NP, as in (8), the "gapped" topic-comment construction in (8-a) is ill-formed, suggesting that the topic is derived and hence is sensitive to island-constraints, while the "gap-less" topic-comment construction in (8-b) is well-formed, suggesting that the topic is base-generated and hence is insensitive to island-constraints.

- (8) a. *Lisi₁, wo zhidao yi-ben [[₋₁ xihuan de] shu].
Lisi I know one-CL like DE book
INT: 'Lisi, I know a book that (he) likes.'
- b. Lisi₁, wo zhidao yi-ben [[{ta₁, zhe-ge haizi} xihuan de] shu].
Lisi I know one-CL he this-CL child like DE book
'Lisi, I know a book that he/this child likes.'

Secondly, when a pronoun that corefers with the topic is positioned between the topic and the gap or the pronoun (or the epithet) in the comment clause, as in (9), the "gapped" topic-comment construction in (9-a) is ill-formed, suggesting that the topic is derived and hence is subject to strong crossover/principle C reconstruction effects, while the "gap-less" topic-comment construction in (9-b) is well-formed, suggesting that the topic is base-generated and hence is not subject to strong crossover/principle C reconstruction effects.

- (9) a. Lisi₁, ta_{2/*1} renwei wo xihuan ₋₁.
Lisi he think I like
'Lisi₁, he_{2/*1} thinks I like (him₁).'

- b. Lisi₁, ta₁ renwei wo xihuan {ta₁, ta₁ zhe-ge haizi}.
 Lisi he think I like he he this-CL child
 ‘Lisi₁, he₁ thinks I like him₁/this child.’

Lastly, when the topic contains a reflexive bound by an argument that c-commands the gap or the pronoun (or the epithet) in the comment clause, as in (10), the “gapped” topic-comment construction in (10-a) is well-formed, suggesting that the topic is derived and hence shows principle A reconstruction effects, while the “gap-less” topic-comment construction in (10-b) is ill-formed, suggesting that the topic is base-generated and hence does not show principle A reconstruction effects.

- (10) a. [Ziji₁ de haizi]₂, Lisi₁ zui xihuan --₂.
 he-self DE child Lisi most like
 Lit. ‘Children of himself₁’s, Lisi₁ likes (them) the most.’
 b. *[Ziji₁ de haizi]₂, Lisi₁ zui xihuan {ta-men₂, ta-men₂ zhe-liang-ge haizi}.
 he-self DE child Lisi most like them them this-two-CL child
 INT: ‘Children of himself₁’s, Lisi₁ likes them/these two children the most.’

In what follows, I will show that SP is sensitive to island-constraints, subject to strong crossover/principle C reconstruction effects and show principle A reconstruction effects.

First, the SP construction in (11-a) is ill-formed, which follows if the “whole”-DP is extracted from the partitive phrase – because the partitive phrase is embedded in a complex NP, extraction from the partitive phrase is expected to be sensitive to island-constraints. Note that in (11-a) the head noun of the partitive phrase is null; I suggest that the null head noun is licensed by the “whole”-DP prior to extraction.

- (11) a. ??Na-shi-ge haizi₁, wo zhidao yi-ben [[[--₁ Lisi de (na-liang-ge) e_{haizi}]] xihuan de]
 that-ten-CL child I know one-CL Lisi DE that-two-CL like DE
 shu].
 book
 INT: ‘Those ten children, I know a book that (those two) (children) of Lisi’s like.’
 b. Wo zhidao yi-ben [[[na-shi-ge haizi zhong de Lisi de (na-liang-ge) (haizi)]]
 I know one-CL that-ten-CL child among DE Lisi DE that-two-CL child
 xihuan de] shu].
 like DE book
 ‘I know a book that (those two) (children) of Lisi’s among those ten children like.’

In (12), island sensitivity goes away when the head noun of the partitive phrase is overt; I suggest that the topic is base-generated in this case (and hence cannot license a null head noun).

- (12) Na-shi-ge haizi, wo zhidao yi-ben [[Lisi de (na-liang-ge) haizi xihuan de] shu].
 that-ten-CL child I know one-CL Lisi DE that-two-CL child like DE book
 INT: ‘Those ten children, I know a book that (those two) (children) of Lisi’s like.’

Secondly, in the SP construction in (13-a), the “whole”-DP in the topic position and the pronoun in the comment clause cannot corefer, which follows if the “whole”-DP is extracted from the partitive phrase – because the pronoun is crossed over if the “whole”-DP is extracted from the partitive phrase, coreferencing the “whole”-DP and the pronoun is expected to incur strong crossover/principle C reconstruction effects. Again, I suggest that the null head noun of the parti-

tive phrase is licensed by the “whole”-DP prior to extraction.

- (13) a. Na-shi-ge haizi₁, wo jieshao-gei-le ta-men_{2/??1} [₋₁ Lisi de (na-liang-ge)
that-ten-CL child I introduce-GEI-Perf them Lisi DE that-two-CL
e_{haizi}].

‘Those ten children₁, I introduced to them_{2/??1} (those two) (children) of Lisi’s (among those ten children₁).’

- b. Wo jieshao-gei-le ta-men_{2/*1} [[na-shi-ge haizi₁ zhong de] Lisi de
I introduce-GEI-Perf them that-ten-CL child among DE Lisi DE
(na-liang-ge) (haizi)].
that-two-CL child
‘I introduced to them_{2/*1} (those two) (children) of Lisi’s among those ten children₁.’

In (14), it is shown that strong crossover/principle C reconstruction effects go away when the head noun of the partitive phrase is overt. This follows if the topic is base-generated.

- (14) Na-shi-ge haizi₁, wo jieshao-gei-le ta-men₁ Lisi de (na-liang-ge) haizi.
that-ten-CL child I introduce-GEI-Perf them Lisi DE that-two-CL child
‘Those ten children₁, I introduced to them₁ (those two) children of Lisi’s (among those ten children₁).’

Lastly, in the SP construction in (15-a), the “whole”-DP in the topic position contains a reflexive that can be bound by “Lisi” in the comment clause, which again follows if the “whole”-DP is extracted from the partitive phrase – because “Lisi” c-commands the partitive phrase, the reflexive in the “whole”-DP can be bound by “Lisi” prior to extraction. Again, I suggest that the null head noun of the partitive phrase is licensed by the “whole”-DP prior to extraction.

- (15) a. [Ta-ziji₁ xie de shu]₂, wo song-gei-le Lisi₁ [₋₂ wo zui xihuan de
he-self write DE book I give-GEI-Perf Lisi I most like DE
(na-liang-ben) (shu)].
that-two-CL book
Lit. ‘Those ten books himself₁ wrote, I gave Lisi₁ (those two) (books) that I like the most.’
- b. Wo song-gei-le Lisi₁ [[ta-ziji₁ xie de shu zhong de] wo zui xihuan de
I give-GEI-Perf Lisi he-self write DE book among DE I most like DE
(na-liang-ben) (shu)].
that-two-CL book
Lit. ‘I gave Lisi₁ (those two) (books) that I like the most among those ten books himself₁ wrote.’

(16-a) contrasts with (12): In both sentences, the partitive phrase is embedded in a complex NP, hence the “whole”-DP cannot be extracted from the partitive phrase. Recall that (12) is well-formed because the “whole”-DP can be a base-generated topic. But (16-a) is ill-formed, suggesting the reflexive contained in the “whole”-DP cannot be bound by “Lisi” if the “whole”-DP must be a base-generated topic.

- (16) a. ??Na-shi-ge ta-ziji₁ de haizi, wo song-gei-le Lisi₁ yi-ben [[wo zui xihuan de that-ten-CL he-self DE child I give-GEI-Perf Lisi one-CL I most like DE (na-liang-ge) haizi xihuan de] shu].
that-two-CL child like DE book
INT: ‘Those ten children of himself₁, I gave Lisi₁ a book that (those two) (children) that I like the most like.’
- b. Wo song-gei-le Lisi₁ yi-ben [na-shi-ge ta-ziji₁ de haizi zhong de wo zui I give-GEI-Perf Lisi one-CL that-ten-CL he-self DE child among DE I most xihuan de (na-liang-ge) (haizi) xihuan de] shu].
like DE that-two-CL child like DE book
‘I gave Lisi₁ a book that (those two) (children) that I like the most among those ten children of himself₁ like.’

So far, I have only discussed SP in topic-comment constructions. In (17), it is shown that SP is also available in passive BEI- and causative BA-constructions, where the “whole”-DP is the subject of BEI and the post-BA argument, respectively, and the partitive phrase surfaces post-verbally.

- (17) a. *SP in passive BEI-construction*
Na-shi-ge haizi₁ bei (wo) xia-ku-le [--- danzi zui xiao de (na-liang-ge) that-ten-CL child BEI I scare-cry-Perf courage most small DE that-two-CL (haizi)].
child
Lit. ‘Those ten children were scared to tears (those two) most fearful (children) (by me).’
- b. *SP in causative BA-construction*
Wo ba na-shi-ge haizi₁ xia-ku-le [--- danzi zui xiao de (na-liang-ge) I BA that-ten-CL child scare-cry-Perf courage most small DE that-two-CL (haizi)].
child
Lit. ‘I had those ten children scared to tears (those two) most fearful (children).’

Importantly, the passive BEI- and causative BA-constructions cannot be “gap-less” otherwise: in (18-a) and (18-b), the gap cannot be filled with a pronoun (that corefers with the subject of BA or the post-BA argument) or an epithet, while this is not the case with topic-comment constructions.

- (18) a. *Passive BEI-construction*
Lisi₁ bei (wo) xia-ku-le {---, *ta₁, *na-ge haizi}.
Lisi BEI I scare-cry-Perf he that-CL child
‘Lisi was scared to tears (*him/*that child) (by me).’
- b. *Causative BA-construction*
Wo ba Lisi₁ xia-ku-le {---, *ta₁, *na-ge haizi}.
I BA Lisi scare-cry-Perf he that-CL child
‘I had Lisi scared to tears (*him/*that child).’

c. *Topic-comment construction*

Lisi₁, wo xia-ku-le {--₁, ta₁, na-ge haizi}.
 Lisi I scare-cry-Perf he that-CL child
 ‘Lisi, I scared (him/that child) to tears.’

Because “gap-less” topic-comment constructions where the gap is filled by a pronoun (that corefers with the topic) or an epithet involve a base-generated topic, I take (18-a) and (18-b) to indicate that the subject of BEI and the post-BA argument are derived rather than base-generated. This further implies that in (17), the “whole”-DP is extracted from the partitive phrase. I will return to the distribution of SP in section 4.3, after I have proposed the current analysis of SP.

To summarize, I have shown that SP is sensitive to island-constraints, subject to strong crossover/principle C reconstruction effects and shows principle A reconstruction effects. I have also shown that SP is available in the passive BEI- and causative BA-constructions where a base-generation analysis is ruled out. Thus, I claim that a base-generation analysis of SP is inadequate, and that SP may involve extraction from a partitive phrase.

4. Split partitivity as extraction from Spec, DP.

4.1. THE GENERAL BAN ON LEFT-BRANCH EXTRACTION OF NOUN MODIFIERS. While I have shown that SP may involve extraction from a partitive phrase, whether SP involves left-branch extraction of a noun modifier remains to be investigated. In this subsection, I will make the case that left-branch extraction of noun modifiers is generally banned in Mandarin, and that SP is no exception to the general ban on left-branch extraction of noun modifiers in Mandarin.

Noun modifiers in Mandarin, which are marked by DE, are subject to two structural analyses. In line with Cheung & Li (2015), I assume that noun modifiers that precede the DEM-NCL-NP sequence are adjuncts,¹ hence cannot license ellipsis of the following DEM-NCL-NP sequence, as shown in (19-a), while noun modifiers that follow the DEM-NCL sequence and precede the NP are hosted in Spec, ModP with DE spelling out Mod⁰, hence can license ellipsis of the following NP which is in Comp, Mod⁰, as shown in (19-b) (see also Saito et al. 2008).

- (19) a. *Wo mai-le suliao de na-liang-ba yizi, er Lisi mai-le mutou de
 I buy-Perf plastic DE that-two-CL chair while Lisi buy-Perf wooden DE
 na-liang-ba yizi.
 that-two-CL chair
 INT: ‘I bought those two chairs that are plastic, while Lisi bought (those two chairs) that are wooden.’
- b. Wo mai-le (na-liang-ba) suliao de yizi, er Lisi mai-le (na-liang-ba)
 I buy-Perf that-two-CL plastic DE chair while Lisi buy-Perf that-two-CL
 mutou de yizi.
 wooden DE chair
 ‘I bought (those two) plastic chairs, while Lisi bought (those two) wooden (chairs).’

Left-branch extraction of noun modifiers is generally banned in Mandarin, as shown in (20) and (21).

¹ Specifically, I will assume that Mandarin has DP and that noun modifiers that precede the DEM-NCL-NP sequence are adjoined to D’.

- (20) a. *[Suliao (de)], wo mai-le (na-liang-ba) yizi.
 plastic DE I buy-Perf that-two-CL chair
 INT: ‘Plastic, I bought (those two) chairs.’
- b. Wo mai-le {suliao de} (na-liang-ba) {suliao de} yizi.
 I buy-Perf plastic DE that-two-CL plastic DE chair
 ‘I bought (those two) {plastic} chairs {that are plastic}.’
- (21) a. *[(Zai) zhuozi shang (de)], wo kan-le (na-liang-ben) shu.
 at table on DE I read-Perf that-two-CL book
 INT: ‘On the table, I read (those two) books.’
- b. Wo kan-le {(zai) zhuozi shang de} (na-liang-ben) {(zai) zhuozi shang de} shu.
 I read-Perf at table on DE that-two-CL at table on DE book
 ‘I read (those two) books on the table.’

Importantly, SP is no exception to the general ban on left-branch extraction of noun modifiers in Mandarin. Consider (22): In (22-a), the “among”-PP precedes the DE-marked possessor in the partitive phrase; the DE-marked possessor cannot co-refer with the pronoun or bind the reflexive in the “among”-PP. In (22-b), the “among”-PP follows the DE-marked possessor in the partitive phrase; the DE-marked possessor can co-refer with the pronoun or bind the reflexive in the “among”-PP.

- (22) a. Wo xihuan [(zai) ta_{2/??1}/*ta-ziji₁ renshi de haizi zhong de] [Lisi₁ de] na-liang-ge
 I like at he/he-self know DE child among DE Lisi DE that-two-CL
 (haizi).
 child
 ‘I like those two (children) of Lisi₁’s among those ten children he_{2/??1}/*himself₁ knows.’
- b. Wo xihuan [Lisi₁ de] [(zai) ta₁/ta-ziji₁ renshi de haizi zhong de] na-liang-ge
 I like Lisi DE at he/he-self know DE child among DE that-two-CL
 (haizi).
 child
 ‘I like those two (children) of Lisi₁’s among those ten children he₁/*himself₁ knows.’

(23) involves SP; the DE-marked possessor cannot co-refer with the pronoun or bind the reflexive in the “whole”-DP or “among”-PP in the topic position. This means that (23) cannot be derived from (22-b), where the “among”-PP is merged in an adjunct position; in other words, the “among”-PP is not extractable when it is merged in an adjunct position.

- (23) [(Zai) ta_{2/??1}/*Ta-ziji₁ renshi de haizi (zhong)], wo xihuan [Lisi₁ de] na-liang-ge
 at he/he-self know DE child among I like Lisi DE those-two-CL
 (haizi).
 child
 ‘(Among) those ten children he_{2/??1}/*himself₁ knows, I like those two (children) of Lisi₁’s.’

Bošković (2005) suggests two approaches to the ban on left-branch extraction of noun modifiers, which I suggest can apply to the two cases in Mandarin. Specifically, I assume, following Bošković (2005), that the ban on left-branch extraction of noun modifiers that are adjuncts follows from the existence and phasehood of DP: assuming that Mandarin has DP and DP is a

phase,² extraction from DP must proceed through Spec, DP; but noun modifiers that are adjoined to D' (and hence precede the DEM-NCL-NP sequence) cannot move to Spec, DP, due to anti-locality constraints, hence they cannot be extracted. Also in line with Bošković (2005), I suggest that noun modifiers that are hosted in Spec, ModP cannot be extracted to the exclusion of the following NP.

4.2. THE CURRENT ANALYSIS OF SPLIT PARTITIVITY. Building on the assumption that Mandarin is a DP-language, I claim that SP involves extraction from Spec, DP, the “escape hatch” for extraction. Specifically, SP is licit when the “among”-PP or “whole”-DP is base-generated in and extracted from Spec, DP of the partitive phrase.

I take (24) to indicate that SP is blocked when Spec, DP of the partitive phrase is occupied by a DE-less possessor.

- (24) (Zai) na-shi-ge haizi (zhong), wo renshi Lisi *(de) (na-liang-ge) e_{haizi}.
 at that-ten-CL child among I know Lisi DE that-two-CL
 ‘(Among) those ten children, I know (those two) (children) of Lisi’s.’

The DE-less possessor “Lisi” is arguably hosted in Spec, DP (and case-licensed by D⁰), because it must precede noun modifiers and the DEM-NCL sequence, as shown in (25).

- (25) Wo renshi {Lisi (de)} [zai na-shi-ge haizi zhong de] {Lisi *(de)} (liang-ge) (haizi).
 I know Lisi DE at that-ten-CL child among DE Lisi DE two-CL child
 ‘I know (those two) (children) of Lisi’s among those ten children.’

The blocking effect in (24) is expected, because when Spec, DP of the partitive phrase is occupied by a DE-less possessor, the “among”-PP can only be merged as an adjunct and hence cannot be extracted.

Note that no blocking effect is observed when the head noun of the partitive phrase is overt. This is expected if the topic is base-generated.

- (26) (Zai) na-shi-ge haizi (zhong), wo renshi Lisi (de) (na-liang-ge) haizi.
 at that-ten-CL child among I know Lisi DE that-two-CL child
 ‘(Among) those ten children, I know (those two) (children) of Lisi’s.’

4.3. THE DISTRIBUTION OF SPLIT PARTITIVITY. What remains to be discussed is the distribution of SP. Recall that SP is available in the passive BEI- and causative BA-constructions, as well as in topic-comment constructions. I claim that when the “whole”-DP is base-generated in Spec, DP of the partitive phrase, it must be extracted because it cannot be licensed by D⁰, but it can be licensed in a case or topic position in a SP construction; hence, SP is expected to be generally available in constructions where A- or A'-movement is involved (cf. Chen 2020).

Specifically, I take the ill-formedness of (27-a) to indicate that when the “whole”-DP is merged in Spec, DP of the partitive phrase, it cannot be case-licensed by D⁰, hence it must be extracted. By contrast, (27-b) is well-formed, because the “whole”-DP is case-licensed by “among”.

² It is worth noting that for Bošković (2008, 2012), all article-less languages, including Mandarin, lack DP. In Chen (to appear), I show that there is no evidence specifically favoring a no-DP analysis of Mandarin, contra Bošković & Hsieh (2013, 2015).

- (27) a. *[na-shi-ge haizi (de)] Lisi de (na-liang-ge) (haizi)
 that-ten-CL child DE Lisi DE that-two-CL child
 INT : ‘(those two) (children) of Lisi’s among those ten children’
- b. [(zai) na-shi-ge haizi zhong de] Lisi de (na-liang-ge) (haizi)
 at that-ten-CL child among DE Lisi DE that-two-CL child
 ‘(those two) (children) of Lisi’s among those ten children’

SP is available in the passive BEI- and causative BA-constructions, as shown in (28), because the “whole”-DP is licensed in a case position.

- (28) a. *SP in passive BEI-construction*
 Na-shi-ge haizi₁ bei (wo) xia-ku-le [₋₁ danzi zui xiao de (na-liang-ge)
 that-ten-CL child BEI I scare-cry-Perf courage most small DE that-two-CL
 (haizi)].
 child
 Lit. ‘Those ten children were scared to tears (those two) most fearful (children) (by me).’
- b. *SP in causative BA-construction*
 Wo ba na-shi-ge haizi₁ xia-ku-le [₋₁ danzi zui xiao de (na-liang-ge)
 I BA that-ten-CL child scare-cry-Perf courage most small DE that-two-CL
 (haizi)].
 child
 Lit. ‘I had those ten children scared to tears (those two) most fearful (children).’

SP is also available in topic-comment constructions. Following Chen (2020), I assume that the “whole”-DP in (29) can be licensed in the topic position in the same way a base-generated topic is licensed in Mandarin.

- (29) (Na-shi-ge) haizi₁, wo renshi [₋₁ Lisi de (na-liang-ge) (haizi)].
 that-ten-CL child I know Lisi DE that-two-CL child
 ‘(Those ten) children, I know (those two) (children) of Lisi’s.’

5. Conclusion. This paper set out to address the question of whether noun modifiers can be stranded or extracted in Mandarin. At this point, two conclusions can be drawn: First, there is no positive evidence that noun modifiers be stranded in Mandarin. This is because the so-called “split NP” phenomenon can be subsumed under SP, while the stranding analysis of “split NP” cannot account for the broader SP phenomenon. Secondly, noun modifiers cannot be extracted in Mandarin. This is because left-branch extraction of noun modifiers is generally banned in Mandarin, and that SP is no exception to the general ban on left-branch extraction of noun modifiers in Mandarin.

The paper also features a detailed investigation of SP. I made three other claims about the nature of SP: First, a base-generation analysis of SP is inadequate; SP may involve extraction from a partitive phrase. Secondly, SP involves extraction from Spec, DP, the “escape hatch” for extraction. Lastly, SP is expected to be generally available in constructions where A- or A’-movement is involved.

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