Jussive agreement with non-agreeing resumptive pronouns in Mandarin Chinese

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1 Introduction

While imperative/jussive clauses are known to have interaction with (null) subjects, verbal morphology, modals, negation, and speaker-addressee relations (Potsdam 1996; Portner 2007; Zanuttini 2008; Zanuttini, Pak, and Portner 2012; Pak, Portner, and Zanuttini 2022; Kaufmann 2012; Alcázar and Saltarelli 2014; Liao and Wang 2022, *i.a.*), whether **objects** interact with jussive clauses is, however, less understood.

(1)   The interaction of jussives with:

   a.   Subjects (e.g. exceptional null subjects in non-pro-drop languages)
   b.   Verbal morphology (e.g. infinitival/special imperative morphology)
   c.   Modals (e.g. performativity)
   d.   Negation (e.g. prohibitives)
   e.   Speaker-addressee relation and embeddability (e.g. speech-style particles)
   f.   ☞ **Objects?**

This study reports such a case of interaction with **objects**, which is observable in a particular movement context. The core data comes from non-agreeing resumptive pronouns (NRPs) in Mandarin Chinese (first reported by Xu 1999), exemplified in (2a). An NRP is strongly preferred when an *object* is topicalized in an imperative (vs. 2b).

(2) a. Zhexie shu_i, ni shao-le ??(**ta_i**)!   (3PL antecedent vs. 3SG NRP)
       these books you burn-PFV 3SG
       Lit.: 'These books, you burn it!' (i.e. These books, burn them!)

    b. Ni shao-le zhexie shu (***ta_i**)!
       you burn-PFV these books 3SG
       'You burn these books!'

Mandarin Chinese does not have *overt* syntactic marking of the imperative/jussive clause type (except prohibitive negation, Yuan 1993; also Liao and Wang 2022 for Taiwan Southern Min). As we will show, the licensing environment of NRPs exactly aligns with **jussive (imperative, promissive, exhortative) clauses**. This striking sensitivity of NRPs to jussives suggests that jussive is a syntactically active notion even in a language without inflectional morphology.

(3) <u>Overview of the talk</u>

    a.   We show that the NRP exhibits a multifaceted empirical profile that involves:
           (i) licensing by jussive clauses,
           (ii) patient roles of objects, and
           (iii) movement-derived properties.

    b.   We argue that the intricate pattern can be accounted for by an *Agree* relation between the **NRP** and **jussive** head, coupled with interface conditions on partial Copy Deletion:

$$[_{CP} \text{ C-jussive } [_{TopP} \text{ DP}_{[TOP]} \text{ } [\text{ Top } [_{TP} \text{ ... } [_{VP} \text{ V } <\text{DP}> = \textbf{NRP}_{[TOP][JUSSIVE]} \text{ }]]]]]$$

    c.   We conclude that NRPs can be viewed as syntactic markers of jussive clauses in Mandarin Chinese, which offers support for jussive being a ***syntactic*** clause type with interaction with *objects*.

    d.   We also briefly discuss the interaction of jussive with objects in other languages.

2   Jussives as the licensing condition of NRPs

We show that NRPs always occur in a jussive clause, and other clause types (or the lack of directive force associated with jussives) cannot license NRPs. That is, the occurrence of NRPs is dependent on jussives.

(5)   The licensing condition of NRPs

    a.   [$_{CP}$ C-jussive ... [$_{TP}$ ... [$_{VP}$ V **NRP**]]]

    b. *[$_{CP}$ C-other ... [$_{TP}$ ... [$_{VP}$ V **NRP**]]]

Jussives as the licensing condition of NRPs

Licensing conditions		Non-agreeing RPs	Agreeing RPs
Matrix clause type	**Jussive**	✔	✔/✗
	Declarative	✗	✔
	Interrogative	✗	✔
Modal	**Performative**	✔	✔
	Descriptive	✗	✔
Negation	**Prohibitive**	✔	✔
	Non-prohibitive	✗	✔
Embedding predicates	**'advise/order'-type**	✔	✔
	'believe'-type (doxastic)	✗	✔

2.1 Matrix clause types

First, NRPs in Mandarin are licensed only in **jussive** clauses. In root clauses, NRPs are licensed in *imperatives*, as we have already seen (reproduced below). In (6), the obligation is placed on the *addressee*. Here, an agreeing resumptive pronoun (ARP) is also acceptable for some speakers.

(6)   Imperatives license NRPs

Zhexie shu$_i$, ni shao-le {**ta$_i$**/%tamen$_i$}!   (obligation on addressee)

these   books   2SG   burn-PFV   3SG/3PL

Lit: 'These books, you burn it/them!'

NRPs are also licensed in other jussive clauses, like *promissives* in (7), where the obligation is placed on the *speaker* (with 'I' as the subject), and *exhortatives* in (8), where the obligation is placed on both the *speaker* and the *addressee* (with 'we' as the subject).

(7) Promissives license NRPs

    Zhexie shu$_i$,   wo   shao-le   {**ta$_i$**/%tamen$_i$}!   (obligation on speaker)

    these   books   1sg   burn-pfv   3sg/3pl

    Lit: 'These books, I burn it/them!'

(8) Exhortatives license NRPs

    Zhexie shu$_i$,   women shao-le   {**ta$_i$**/%tamen$_i$}!   (obligation on speaker+addressee)

    these   books   1pl   burn-pfv   3sg/3pl

    Lit: 'These books, we burn it/them!' (i.e., Let's burn these books!)

Crucially, the obligation cannot be placed on a non-discourse participant (i.e. 'he/she/they'):

(9) *Zhexie shu$_i$, tamen shao-le **ta$_i$**! (*obligation on non-participant)
    these books 3PL burn-PFV 3SG
    Lit: 'These books, they burn it/them!'

Moreover, other clause types, like declaratives or interrogatives in (10), also do not license NRPs.

(10) a. Zhexie shu$_i$, wo yijing shao-le {*ta$_i$/tamen$_i$}.   (declarative)
these books I already burn-PFV 3SG/3PL
'I already burnt these books.'

b. Zhexie shu$_i$, ni yijing shao-le {*ta$_i$/tamen$_i$} ma?   (interrogative)
these books you already burn-PFV 3SG/3PL SFP
'Have you burnt these books?'

2.2 Performative modals

NRPs are also licensed under **performative uses** of modals. It is well-known that **deontic modals** can be used *descriptively* or *performatively*, the latter resulting in a jussive clause with directive force (Kamp 1973; Portner 2007; Kaufmann 2012, *i.a.*).

(11) a. You **should** go to confession, but you're not going to.   (descriptive, Portner 2007, ex.31a)
      b. You **should** sit down right now.   (performative, Portner 2007, ex.28)

On its descriptive use, the sentence *reports* a pre-existing obligation/permission, to which the speaker may or may not be committed to. On its performative use, the speaker *issues* a command/permission with commitment to it.

With NRPs, the modalized sentence in (12a) can *only* be performative, rendering continuation like 'but I think you do not need to' in (12b) and responses like 'True!/False!' in (12c) infelicitous.

(12) The obligatory *performative* use of deontic modals with NRPs

    a.   A: Zhexie shu_i, ni yao/yinggai shao-le **ta_i**!

        these books you must/should burn-PFV 3SG

       Lit: 'These books, you must/should burn it.'

    b.   A: … # but I think you don't need to burn them.

    c.   B: # True!/ # False!

This contrasts with epistemic and dynamic modals. While they do not license a performative/directive use (Portner 2007), they also do not license NRPs as in (17)-(18).

(17)   Epistemic modals

Zhexie shu$_i$,   ni/wo/yuehan {keneng/   yiding}   shao-le   {*ta$_i$/tamen$_i$} (le)
these   books   you/I/John   probably/ definitely burn-PFV   3SG/3PL   SFP
'You/I/John {probably/definitely} burnt these books.'

(18)   Dynamic modals

Zhexie shu$_i$,   ni/wo/yuehan {gan/   neng} jiu   zheyang shao-le   {*ta$_i$/tamen$_i$}
these   books   you/I/John   dare/ can   then like.this burn-PFV   3SG/3PL
'You/I/John {dare to/can} burn these books just like that.'

2.3 Negation

Another piece of evidence comes from negation. Mandarin has three forms of negation: *bu* 'not', *mei(you)* 'didn't', and *bie* 'don't'. ***Bie*** 'don't' is a **prohibitive negation** that only occurs in jussive clauses (strictly speaking, only imperatives and exhortatives) (see also Liao and Wang 2022 for Taiwan Southern Min). The other two forms, *bu* (neutral negation) and *meiyou* (perfective negation), do not occur in jussive clauses.

(19)   a.   Ni   **bie**   shao-le   zhexie shu!
          2SG PROH burn-PFV these   books
          '(You) don't burn these books!'

      b. *Ni   **bu/meiyou**   shao(-le)   zhexie shu!
          2SG not/not.PFV   burn-PFV these   books
          Int.:'(You) don't burn these books!'

Importantly, with the presence of NRPs, only the prohibitive negation *bie* 'don't' is allowed. *Bu* and *meiyou* are banned. (20b) is unacceptable regardless of the intended meaning (either as command or assertion).

(20) a. Zhexie huaping$_i$, nei **bie** za-le **ta$_i$**!
      these vase 2SG PROH break-PFV 3SG
      Lit.: 'These vases, (you) don't break it!'

  b. *Zhexie huaping$_i$, nei **bu/meiyou** za(-le) **ta$_i$**.
      these vase 2SG NOT/NOT.PFV break-PFV 3SG
      Lit.: 'These vases, (you) don't/didn't break it.'

Note that prohibitive negation can only occur in jussives where an obligation is placed *on the addressee* (i.e., imperatives and exhortatives). The prohibitive negation is not allowed in promissives, where the obligation is only placed *on the speaker*. This is different from NRPs - which, as we have already seen, occur in **all three** types of jussive clauses.

(22) a. **Women bie** shao-le zhexie shu (ba)! (exhortative)
        1PL PROH burn-PFV these books SFP
        'Let's not burn these books.'

    b. ***Wo bie** shao-le zhexie shu (ba)! (promissive)
        1SG PROH burn-PFV these books SFP
        Int.: 'I won't burn these books. (you have my word)'

2.4   Embedding predicates

NRPs can only be embedded under **advise predicates** like 'advise/order', as illustrated in (23a). These predicates are argued to take embedded imperatives (as evidenced by, for example, the clause type markers in Korean, Portner 2007; see also Crnič and Trinh 2009; Kaufmann and Poschmann 2013).

(23)   Embedded jussives taken by 'advise/order' predicates license NRPs

    a.   Zhexie   shu$_i$,   Xiaoming   mingling   ni/wo/yuehan   [shao-le   {**ta$_i$**/tamen$_i$}]
            these   books   Xiaoming   order   you/I/John   burn-PFV   3SG/3PL
            'Xiaoming ordered you/me/John to burn these books.'

    b.   Zhexie   shu$_i$,   Xiaoming   jianyi   ni/wo/yuehan   [shao-le   {**ta$_i$**/tamen$_i$}]
            these   books   Xiaoming   advise   you/I/John   burn-PFV   3SG/3PL
            'Xiaoming advised you/me/John to burn these books.'

Importantly, doxastic predicates like 'believe' in (23b) do not license an embedded NRP. Hence, NRPs can only be licensed in *embedded jussives* but *not* embedded declaratives.

(27)   (Zhexie shu$_i$)   Xiaoming   xiangxin   [(zhexie   shu$_i$)   wo   shao-le   {***ta$_i$**/tamen$_i$}]

      these   books   Xiaoming   believe   these   books   I   burn-PFV   3SG/3PL

      "Xiaoming believed that I burnt these books."

Taking stock, NRPs are licensed by jussives, including imperatives, promissives, and exhortatives, suggesting that they establish some syntactic dependency with the jussive projection.

(28)   [$_{CP}$ C-jussive ... [$_{TP}$ ... [$_{VP}$ V **NRP**]]]]]

3   The patient object restriction on NRPs

The distribution of NRPs is not only restricted by clause types, but also by grammatical functions and theta roles. Specifically, only ***direct objects*** that bear a ***patient role*** may be an NRP.

3.1   Grammatical functions

Subjects, indirect objects, preposition objects, all resist the NRP use.

An **indirect object**, unlike direct objects, also cannot be an NRP.

(30)   An indirect object cannot be an NRP

    a. Ni yinggai song-gei [zhexie gongsi]   yibi qian!
        2SG should give-to these   companies one money
        'You should give these companies an amount of money!'

    b. *Zhexie gongsi$_i$,   nei yinggai song-gei **ta$_i$** yibi qian!
        these   companies 2SG should give-to 3SG one money
        Lit.: 'These companies, you should give it an amount of money!'

3.2 Thematic roles

Apart from grammatical functions, the thematic role of the objects also matters. Only a **patient/theme (object)** may be an NRP. In (32a), the object is a **causee** rather than a patient. Crucially, only the agreeing RP *tamen* 'they', but not the NRP, is allowed in imperative (32b).

(32) a. Ni qu qi-lei zhexie ma!
you go ride-tired these horse
"You go ride these horses until they get tired!"
(i.e. go cause these horses to be tired by riding them!)

b. Zhexie ma$_i$, ni qu qi-lei {*ta$_i$/tamen$_i$}!
these horse you go ride-tired 3SG/3PL
"You go ride these horses until they get tired!"

In short, together with the jussive licensing, the NRP always refers to the **patient object** upon which the addressee or the speaker (or the matrix subject, as in embedded jussives) is obligated to impose actions. This can be understood as an interaction of **addressee/speaker** with **argument structure** in **jussive** clauses.

4 The movement properties of NRPs

We argue that NRPs are not base-generated pronouns or object expletives. Rather, they are derived by movement, and, as we will propose, they are the (partial) realization of the lower copy/trace.

(34) The resumption dependency with NRPs is movement

... [$_{TopP}$ DP$_{[TOP]}$ [Top [$_{TP}$ ... [$_{VP}$ V **NRP=*ta***]]]]]

The movement properties of NRPs

	Movement properties	Non-agreeing RPs	Agreeing RPs
Locality	Long distance	✔	✔
	Island sensitivity	✔	✘
Connectivity	Idiom preservation	✔	✘
	Reconstruction for binding	✔	✘

While the resumption dependency can be long-distance, no island boundaries may intervene between the antecedent and the NRP, as illustrated by the complex DP island in (36a). Note that if the topicalization does not cross an island boundary as in (36b), the NRP can still be used.

(36) The resumption dependency with NRPs cannot cross a complex DP island

    a. Zhexie shu$_i$, wo tingshuo-le [$_{DP}$ [$_{CP}$ Lisi mingling ni shao-le {*ta$_i$/tamen$_i$}]
       these books I hear-PFV   Lisi order you burn-PFV 3SG/3PL

       de xiaoxi].
       DE news

       '(As for) these books, I heard the news that Lisi ordered you to burn {*it/them}.'

    b. Wo tingshuo-le [$_{DP}$ [$_{CP}$ **zhexie shu$_i$** Lisi mingling ni shao-le **ta$_i$**] de xiaoxi].
       I hear-PFV   these books Lisi order you burn-PFV 3SG   DE news

       Lit.: 'I heard the news that (as for) these books Lisi ordered you to burn it.'

5   Proposal: jussive agreement

To account for the empirical patterns above, we propose that the NRP establishes two separate dependencies: (i) *agreement* with the **jussive C head**, (ii) *movement* dependency with the antecedent (i.e. topicalization):

(42) $[_{CP}$ C-jussive $[_{TopP}$ DP$_{[TOP]}$ [Top $[_{TP}$ ... $[_{VP}$ V <DP>=**NRP**$_{[TOP][JUSSIVE]}$]]]]]

We propose that the **non-agreeing form** of the NRP is derived by **partial Copy Deletion**. The proposal involves three key ingredients.

(43) a. The [ᴊᴜssɪᴠᴇ] feature on the NRP, which is only present on objects with a patient role

b. The lower copy but not the higher copy agrees with the jussive C head

c. Two interface conditions on chain resolution, that give rise to partial Copy Deletion

First, the [ᴊᴜssɪᴠᴇ] feature on the NRP captures its licensing condition: there must be a jussive C head to agree with the NRP. We further suggest that only objects with a patient role (i.e., "disposal" objects) bear this feature - which is, the *patient* that receives the action directly *from the addressee/speaker* (in root jussives) or the matrix subjects with the obligation (in embedded jussives).

Second, we assume that the higher copy of the topicalized object does *not* agree with the jussive C head. The leading idea is it only agrees with the topic head and does not carry an accessible [JUSSIVE] feature. This is in a sense similar to Criterial Freezing (Rizzi 2006; although it usually concerns further movement, as compared to agreement). For concreteness, we assume with Obata and Epstein (2011) that A'-movement only moves A' features. Thus, the higher copy only carries the A' [TOP] feature agreed with Top. The [JUSSIVE] feature only stays at the lower copy. In effects, it creates a configuration like below, where only the lower copy but not the higher copy of the object carries [JUSSIVE].

(44)   [$_{CP}$ C-jussive [$_{TopP}$ DP$_{[TOP]}$ [Top [$_{TP}$ ... [$_{VP}$ V <DP>$_{[TOP][JUSSIVE]}$]]]]]

Third, we further borrow the insight from Fanselow and Cavar ([2002](#)) that partial Copy Deletion (CD) may apply over full CD when the two copies agree with different heads, as given in ([45](#)). In the case of NRPs, the higher copy agrees with Top and the lower copy agrees with $C_{jussive}$, hence both copies need to be spelt out.

(45) <u>An interface condition (simplified)</u>
      In a chain <C_1, C_2>, spell out both C_1 and C_2 if they agree with different heads.

Instead of pronouncing the *whole* lower copy (*i.e.* no CD=doubling), an economy principle like (48) (simplified from Landau 2006; van Urk 2018; or MaxElide, Scott 2021) forces spelling out the lower copy in its *minimal* form: a default pronoun with only [D] and no phi-features, the **3sɢ** *ta*.

(48)   Economy: Delete as many parts of chain copies as possible.

A derivation is given below:

(49) <u>A schematic derivation of NRPs in a root jussive clause</u>

    a. $[_{CP}$ C-jussive $[_{TopP}$ [Top $[_{TP}$ ... $[_{VP}$ V DP$_{[TOP][JUSSIVE]}$]]]]]   (Narrow Syntax: Baseline)

    b. $[_{CP}$ C-jussive $[_{TopP}$ **DP$_{[TOP]}$** [**Top** $[_{TP}$ ... $[_{VP}$ V \<DP\>$_{[TOP][JUSSIVE]}$]]]]]   (NS: Topicalization)

    c. $[_{CP}$ **C-jussive** $[_{TopP}$ DP$_{[TOP]}$ [Top $[_{TP}$ ... $[_{VP}$ V **\<DP\>**$_{[TOP]\textbf{[JUSSIVE]}}$]]]]]   (NS: Jussive agreement)

    d. $[_{CP}$ C-jussive $[_{TopP}$ DP$_{[TOP]}$ [Top $[_{TP}$ ... $[_{VP}$ V \<$[_{DP}$ [D]=**ta** ~~NP~~]\>$_{[TOP][JUSSIVE]}$]]]]]   (PF: *Partial* CD)

       cf. ... *$[_{VP}$ V ~~\<DP\>~~$_{[TOP][JUSSIVE]}$]   (*Full* CD: violates (45) → **gap is *dis*allowed in (2a)**)

       cf. ... *$[_{VP}$ V \<DP\>$_{[TOP][JUSSIVE]}$]   (*No* CD: violates (48))

(50) Prediction of the locality effects on jussive agreement

    a.   *[$_{CP\text{-matrix}}$ **C-jussive** ... [V [$_{CP\text{-embedded}}$ **C-declarative** ... [V [**NRP$_{[JUSSIVE]}$**]]]]

    b.   [$_{CP\text{-matrix}}$ **C-declarative** ... [V [$_{CP\text{-embedded}}$ **C-jussive** ... [V [**NRP$_{[JUSSIVE]}$**]]]]

The prediction is borned out in (51). In (51), the immediate C c-commanding the NRP is declarative, and agreement with the matrix jussive head is blocked by the embedded CP phasal boundary. Note that while the antecedent may be outside of the CP phase, it lacks [JUSSIVE] and no agreement between C and the higher copy is possible. Only the agreeing RP *tamen* '3PL' can be used.

(51)   [$_{CP}$ **C$_{jus.}$** [(zhexie shu$_i$) nei yao shengcheng [$_{CP}$ **C$_{decl.}$** [(zhexie shu$_i$) ta shao-le

                 these   book 2SG must claim   these   book 3SG burn-PFV

    {*****ta$_i$**/tamen$_i$}]]]]]

    3SG/3PL

    '(These books), you must claim that (these books) s/he burnt {*it/them}.'

6 Concluding remarks

(52) <u>Take home messages</u>

    a.   The NRP in Mandarin can only be licensed in jussive clauses, and there is an ***Agree*** relation between the **NRP** and **jussive** head:

$$[_{CP} \text{ C-jussive } [_{TopP} \text{ DP}_{[TOP]} \text{ [Top } [_{TP} \dots [_{VP} \text{ V } \text{<DP>=}\textbf{NRP}_{[TOP][JUSSIVE]} \text{]]]]]}$$

    b.   Jussive is a ***syntactic*** clause type that has syntactic consequences on the form of resumptives - even in a language without other overt marking of jussives.

    c.   The NRP can only be **patient objects** - suggesting some special interaction between objects and jussive clauses!

(53) <u>Further questions to explore</u>

    a.   <u>Theoretical</u>: Why patient objects? Considering that they receive action which the *addressee* or the *speaker* (or the matrix subject, as in embedded jussives) is obligated to perform, what does the interaction with objects inform us about the nature of the interpretation of jussives?

    b.   <u>Analytic</u>: How to account for the variations among Sinitic languages (e.g. Cantonese)?

    c.   <u>Cross-linguistic</u>: Do objects in other languages have special behavior in jussives? ☞ **Yes!**

We would like to end the talk by pointing out that the link between objects and jussives is not restricted to just Mandarin Chinese. Den Dikken (1992, 1998) observe that *right-peripheral objects* are only allowed in imperatives but not declaratives (but see Koopman 2007):

(54)   Right-peripheral objects are licensed in imperatives in Dutch

    a.   Leg {a. die bal} neer {b. **die bal**}!   (Imperative)
         put   that ball down   that ball
         'Put the ball down!'

    b.   Jan legde {a. die bal} neer {b. ***die bal**}   (Declarative)
         Jan put   that ball down   that ball
         'Jan put the ball down.'

                                  (Den Dikken 1992, ex.1-5)

Crucially, the right-peripheral objects are only limited to **direct objects**, showing striking similarities with Mandarin.

(55) <u>Only direct objects can surface in the right-peripheral position in imperatives in Dutch</u>

    a. *Stuur dat boek op **die jongen**!   (Indirect objects)
           send that book up that boy

    b. ?Stuur die jongen op **dat boek**!   (direct objects)
           send that boy   up that book

                                                           (Den Dikken 1992, ex.23b-c)

Also null objects in English imperatives ... (and many other languages discussed in Bošković 2023):

(56) a.   Open carefully!

 b. *You open carefully!

 c.   You open it carefully!

Acknowledgment