A unified biclausal approach to right dislocation in Chinese*

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Abstract

This paper revisits the clausal structure of right dislocation (RD) in Chinese. In RD, elements are displaced to the right of the sentence, either leaving a gap (gapped right dislocation, GRD) or a correlate (dislocation copying, DC). Despite remarkable structural similarities, GRD is often analyzed as having a monoclausal structure and DC as having a biclausal structure. Drawing on novel evidence from Cantonese and Mandarin, this paper argues that a non-uniform treatment is unwarranted and both GRD and DC are biclausal. It is proposed that GRD and DC share a unified syntax involving two underlying clauses, where the second one involves movement and deletion. The difference between GRD and DC is in the use of empty categories, which are abundant in Chinese but whose role has been largely unaddressed in previous studies of RD. I show that properties of empty categories in the first clause not only capture different variants of GRD, but also correctly rule out a range of illicit cases. The findings allow for a simpler yet empirically more adequate grammar of RD in Chinese, and moreover support a uniform view on RD across languages.

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Contents

1 Introduction

Right dislocation (henceforth RD) refers to the phenomenon where some elements are displaced or "copied" to the right of a sentence, commonly found in colloquial speech. In Chinese (including Cantonese and Mandarin), when sentence-final particles (SFPs) are present, the displaced/copied elements must follow the SFPs (Cheung 2009a, 2015). These constructions are sometimes referred to as "afterthoughts" (Chao 1968) or "incremental sentences" (Luke 2004). The general schema is illustrated in (1), using pre-theoretical terms "main chunks" and "RD chunks" for the two parts.[1]

(1) $\overbrace{[\ \ldots\ (\mathrm{XP}_i)\ \ldots\ \mathrm{SFP}\ ]}^{\textit{main chunk}}\ \overbrace{\mathrm{XP}_i}^{\textit{RD chunk}}$

Two examples of displacement and copying of subjects are exemplified in (2) and (3), respectively. I refer to cases like (2) as gapped right dislocation (GRD) and (3) as dislocation copying (DC).[2]

(2) Gapped right dislocation (GRD)

a. [_ heoi-zo Meigwok laa3] **Aaming**. [C(antonese)]

b. [_ qu-le Meiguo le] **Xiaoming**. [M(andarin)]
go-PFV US SFP Ming
'Ming went to the US.'

(3) Dislocation copying (DC)[3]

a. [**Aaming** heoi-zo Meigwok laa3] **Aaming**! [C]

b. [**Xiaoming** qu-le Meiguo le] **Xiaoming**! [M]
Ming go-PFV US SFP Ming
'Ming went to the US!'

1. W. H. Wei and Li (2018) distinguish RD from afterthoughts, as the latter may receive stress as well as allow an SFP at the end, as in (i) below. Afterthoughts also differ from RD in lacking island sensitivity (Ott and de Vries 2016). This paper takes the obligatory sentence-medial position of SFPs as the defining property of RD in Chinese, and sets side the afterthought cases.

(i) [Wo mai-le ding maozi], nizi-de (ne). (afterthought) [M]
1SG buy-PFV CL hat woolen SFP
Lit.: 'I bought a hat, woolen.' (adapted from W. H. Wei and Li 2018:274)

2. Cantonese examples are transcribed in *Jyutping* (the Linguistic Society of Hong Kong Cantonese Romanization Scheme, 1993), and tones (1-6) are represented when necessary. Abbreviations that are not in the Leipzig Glossing Rules: CL=classifier; EXP=experiential aspect; SFP=sentence-final particle. The data in this paper were collected from the literature, Internet, and daily conversation, with the rest constructed by the author. The judgment of Cantonese examples was confirmed with four other native speakers from Hong Kong (some with seven), and that of Mandarin examples was confirmed with five other native speakers, most of whom were from Mainland China.

3. In colloquial speech, DC is usually accompanied with an "intensifying effect" of the illocutionary force (Meng 1982; Chen 2016), often with a stress in the main chunk. See fn. 10 for the functions of DC.

In GRD, the main chunk has a gap that is interpreted using the description in the RD chunk. In DC, there is a correlate of the RD chunk in the main chunk, which may be identical in form or distinct, such as a resumptive pronoun (Cheung 2015).

On a typological note, many languages disallow GRD with an argumental gap like (2), such as Dutch and German (Ott and de Vries 2016). These languages also disallow null arguments, as opposed to languages like Japanese and Korean where both null arguments and GRD are allowed (Tanaka 2001; Park and Kim 2009). Chinese falls into the latter group. This correlation will play a major role in this paper.

While Chinese RD has been discussed in relation to a number of theoretical issues (e.g., (de)focus, linearization, head-directionality of SFPs; see Cheung 2009a; T. T.-M. Lee 2017, 2021; Lai 2019), there are some fundamental questions that have not been settled. Two major ones are whether GRD and DC should receive a uniform treatment, and whether they underlyingly consist of one clause or two. Most previous studies in the generative framework only focus on one construction, with GRD proposed as having a monoclausal structure with movement (Cheung 2009a; T. T.-M. Lee 2017, *i.a.*) and DC having a biclausal structure with ellipsis/sluicing (Cheung 2015; Tang 2018, *i.a.*), despite the general consensus on unification in work conducted in traditional grammar and other frameworks (e.g., Shi 1992; Luke 2004). It was not until recently that generative attempts towards unification have been made, with a monoclausal structure (Lai 2019; T. T.-M. Lee 2021).[4]

This paper argues for a uniform *biclasual* approach to RD in Cantonese and Mandarin, with a special focus on the role of *empty categories* in GRD. In §2, I synthesize previous studies and demonstrate that GRD and DC share a number of similarities that warrant unification. I then offer a series of novel arguments for a biclasual structure of GRD and DC, and against previous monoclausal analyses in §3. Borrowing insights from Cheung (2015) and Ott and de Vries (2016), I propose in §4 that the two chunks are asymmetrically coordinated by a specifying conjunction **:** (colon). This captures a traditional idea that RD chunks are "extensions" of the main chunks (e.g., Shi 1992). The RD chunks have an underlying clausal structure involving movement and deletion, whereas the main chunks are clauses either with empty categories (GRD) or without (DC). A preview of the analysis is given in (4).

(4) $[_{:P}\ [_{\text{main}}\ \ldots\ \{e_i\ /\ \text{XP}_i\}\ \ldots\ \text{SFP}\ ]\ [_{:'}\ \textbf{:}\ [_{\text{RD}}\ \text{XP}_i\ [\ \ldots\ t_{\text{XP}}\ \ldots\ ]\ ]]]]$

(e = empty category, shaded = non-pronunciation)

In §5, I further explicate how empty categories in GRD predict the range of licit and illicit cases, and conclude in §6. Ultimately, the findings in this paper allow for a simpler grammar of RD by reducing the difference between GRD and DC to independently motivated empty categories, which are ubiquitous in Chinese (Huang 1982 *et seq.*).

4. Tang (2018) also suggests a unification, but he does not explicitly mention how GRD is handled.

2 Overview of right dislocation in Chinese

2.1 Core properties

Let us begin with an overview of the core grammatical properties shared by GRD and DC in Chinese, including (i) flexible constituency, (ii) movement, (iii) defocus, and (iv) root phenomenon status.

The first prominent property of GRD and DC is that they appear at first glance to not respect constituency, in both main chunks and RD chunks. This gives four possibilities:

(5) Four constituency possibilities in RD

I. [$_{main}$ constituent SFP] [$_{RD}$ constituent]
II. [$_{main}$ constituent SFP] [$_{RD}$ non-constituent]
III. [$_{main}$ non-constituent SFP] [$_{RD}$ constituent]
IV. [$_{main}$ non-constituent SFP] [$_{RD}$ non-constituent]

Type I is already illustrated in (2)/(3), with VP/TP in main chunks and subjects in RD chunks (*VP/TP-SFP-S*). Type II is exemplified in (6), where the RD chunks consist of a subject and a modal or an adverb. This is true for GRD and DC in both languages (Cheung 2009a, 2015; Chan 2016; Chen 2016).[5]

(6) Non-constituents in RD chunks in GRD and DC

a. [_ maai jat-bou dinnou aa3] **keoi wui**. *V-O-SFP-S-Mod* [C]
buy one-CL computer SFP 3SG will
'He will buy a computer.' (Cheung 2009a:200)

b. [**Nin dagai** bu-dao wushi ba] **nin dagai**? *S-Adv-V-O-SFP-S-Adv* [M]
2SG probably not-reach 50 SFP 2SG probably
'I guess you probably haven't reached age 50?' (Shi 1992:168)

Type III is uncovered by T. T.-M. Lee (2017) for Cantonese, and is also documented in earlier work on Mandarin RD (Lu 1980; Shi 1992). Two major cases fall under this type: GRD of verbs such as (7a), leaving a non-constituent with a subject and a (clausal) object in the main chunk;[6] and GRD of objects such as (7b), leaving a subject-verb string in the main chunk.[7]

5. Unless specified otherwise, examples utilize the following notation for expository purposes: [bracketing] for main chunks, underscores (_) for gaps, **boldface** for RD chunks and their correlates, and CAPS for stress. Commas are not added unless for a pause, which is often absent in RD.

6. Cases of verb DC are also attested (T. T.-M. Lee 2021). Since the main chunk in DC is often a complete clause, non-constituents in main chunks are only observable with "partial copying". An example of Type IV is given below.

(i) [Keoi _ **heoi** Meigwok aa3] **wui heoi**. *S-V-O-SFP-Mod-V* [C]
3SG go US SFP will go
'S/he will go to the US.'

7. Cheung (2015) and Lai (2019) mention an object restriction on DC, which says that objects cannot "copied". However, T. T.-M. Lee (2021) argues that this restriction should be recast as a linearization issue. Informally speaking, DC is not possible if the "copied" material is too close to the correlate. That is, ***X***-*Y-SFP-****X*** is possible but **X-****Y***-*SFP-****Y*** is not. For example, object DC is indeed acceptable when a duration phrase follows the object in the main chunk (*S-V-****O***-*DurP-SFP-*

(7) Non-constituents in main chunks in GRD

a. [Wo _ ziji qu yi-tang (a)] **zhunbei**. *S-O-(SFP)-V* [M]
1SG self go one-round SFP prepare
'I plan to go there once by myself.' (Lu 1980:58, SFP *a* added)

b. [Keoi jau-mou maai _ aa3] **gaa ce**? *S-V-SFP-O* [C]
3SG have-not.have buy SFP CL car
'Has s/he bought the car?' (T. T.-M. Lee 2017:60)

Finally, an example of Type IV is GRD of modals and verbs, with non-constituents in both chunks:

(8) Non-constituents in both chunks in GRD

[Zoengsaam _ go-bou dinnou lo1] **wui maai**. *S-O-SFP-Mod-V* [C]
Zoengsaam that-CL computer SFP will buy
'Zoengsaam will buy that computer.' (T. T.-M. Lee 2017:60)

Second, right-dislocated elements exhibit canonical properties of movement in GRD and DC. The possibility of RD is constrained by the surface structure of the main chunks. First, the gap/correlate can be embedded (T. T.-M. Lee 2017):[8,9]

(9) a. [ngo zi [$_{CP}$ ZS _ maai-zo bou soenggei] aa3] **hai dinnouzit**. (GRD) [C]
1SG know ZS buy-PFV CL camera SFP at computer.festival
'I know ZS bought a/the camera at the Computer Festival.' (T. T.-M. Lee 2017:64)

b. [Wo zhidao [$_{CP}$ **ni** gan-ma] ne] **ni**! (DC) [M]
1SG know 2SG do-what SFP 2SG
Lit.: 'I know what you have done, you!' (Meng 1982:175)

Nonetheless, the gap/correlate cannot be contained in an island, as schematized in (10):

(10) *[$_{main}$ ... **[island** ... { $\__i$/ XP_i} ... **]** ... SFP] [$_{RD}$ XP_i]

This constraint is general to all kinds of islands, including complex NP islands, adjunct islands, subject islands, coordinated structures, etc. (Cheung 2015; Chen 2016; Chiang 2017; T. T.-M. Lee 2017; Lai 2019). One example of GRD and one example of DC are given in (11).

O; T. T.-M. Lee 2021:122). Note that these cases are problematic for Cheung (2015) and Lai (2019), whose accounts predict object DC to be always impossible (by precluding deletion from targeting non-constituents). Interested readers may refer to T. T.-M. Lee (2021) for an explanation based on Cyclic Linearization.

8. Generally, SFPs may be divided into at least two types: embeddable and non-embeddable (inter vs. outer SFPs in Tang 1998). Both SFPs in (9) are non-embeddable and belong to the matrix clauses. For Cantonese *aa3* in (9a), see Sybesma and Li (2007), Tang (2015b), and Lau (2019); for Mandarin *ne* that indicates attitude in (9b) (to be distinguished from other instances of *ne* that indicate continuation/questions), see Paul (2014) and Pan (2019).

9. For Beijing Mandarin speakers, (9b) with a certain intonation means 'How the hell would I know what you have done?!'.

(11) The gap/correlate of RD chunks cannot be in an island

a. *[ZS [$_{CP}$ janwai _ maai-zo dinnou] soji mou cin sikfaan lo1] **jung jingam**.
ZS because buy-PFV computer so no money eat SFP with cash
Int.: 'Because ZS bought a computer with cash, he has no money for meal.'
(GRD, Adjunct island; T. T.-M. Lee 2017:65) [C]

b. *[Women tingshuo-le [$_{DP}$ [$_{CP}$ **ta** taopao] de xiaoxi] (a)] **ta**! (DC, CNPI) [M]
1PL hear-PFV 3SG escape DE news SFP 3SG
Int.: 'We hear the news that he escaped.' (Chen 2016:71, SFP *a* added)

Apart from island effects, reconstruction effects are also found in GRD (e.g., Cheung 2009a; T. T.-M. Lee 2017). In (12), it is ungrammatical to right-dislocate a CP complement containing an R-expression bound by the matrix subject. This is taken to indicate obligatory reconstruction of the CP to the gap position, which leads to a Binding Principle C violation.

(12) Reconstruction for Binding Principle C in GRD

*[Keoi$_i$ m-seon _ lo1] [$_{CP}$ **ZS**$_i$ beng-zo]. [C]
3SG not-believe SFP ZS be.sick-PFV
Int.: 'ZS$_i$ doesn't believe that he$_i$ is sick.' (T. T.-M. Lee 2017:66)

Third, RD chunks in GRD and DC are always defocused. I follow Rooth (1992) and Krifka (2008) and conceive of "focus" as triggering a set of alternatives rather than as new information. Examples include contrastive and corrective foci, exclusive focus, cleft focus, 'even' focus, interrogative *wh*-phrases and congruent answers to them, among others. They are all prohibited in RD chunks (T. T.-M. Lee 2017, 2020, 2023; Cheung 2009a, 2015, *i.a.*). Three examples are illustrated below. In (13), an element bearing exclusive focus cannot be right-dislocated in GRD and DC. The same applies to 'even' focus, as in (14). In (15), we see that contrastive stress cannot be placed on any elements in DC.[10]

(13) Exclusive focus is banned in RD chunks in GRD and DC [C]

??[{ _/ **zinghai ngo**} maai-zo ni-bun syu zaa3] **zinghai ngo**.
only 1SG buy-PFV this-CL book SFP only 1SG
Int.: 'Only I bought this book.' (T. T.-M. Lee 2023, ex.18)

(14) 'Even' focus is banned in RD chunks in GRD and DC [M]

*[{ _/ **Lian shi**} ta ye chi a] **lian shi**!
even shit 3SG also eat SFP even shit
Int.: 'S/he even eats shit!'

10. DC is pragmatically different from GRD in having a "minor emphasis" (Cheung 2015:263). As pointed out by Cheung, this so-called emphasis function concerns the speaker's assumptions about whether the hearer may integrate the information expressed by DC into the common ground. This is different from the notion of focus adopted here (i.e., grammatically introducing alternatives). For other functions of DC, see Chan (2016) for Cantonese and Chen (2016) for Mandarin.

(15) Contrastive focus with stress is banned in RD chunks in DC [C]
[**Keoi wui** heoi jamngokwui gaa3] {***KEOI wui**/ ***keoi WUI**/ ***KEOI WUI**/ ^{OK}**keoi wui**}.
3SG will go concert SFP 3SG will 3SG will 3SG will 3SG will
'S/he will go to the concert.' (DC, adapted from Cheung 2015:261)

Note that the notion of defocus is different from givenness. When the sentence receives a broad focus (e.g., the whole proposition is the answer to a question), the materials in RD chunks may accommodate new information, as shown in (16). Here, "my mum" is not given in the previous discourse.

(16) a. Q: Why were you so mad yesterday?
b. A: [{ _ / ngo Aamaa} dalaan-zo ngo zik zip lo1] **ngo Aamaa**. (GRD/DC) [C]
1SG Mum break-PFV 1SG CL plate SFP 1SG Mum
c. A: [{ _ / wo Mama} dapo-le wo-de diezi a] **wo Mama**. (GRD/DC) [M]
1SG Mum break-PFV 1SG-DE plate SFP 1SG Mum
(b-c): '(My mum) broke my plate, my mum.'

The last feature of GRD and DC is that they cannot be embedded or subordinated, and thus are a type of root phenomena (T. T.-M. Lee 2017). A Cantonese GRD example is given in (17). Notice that the sentence does not improve even if we add an SFP *ge3* before the RD chunk, although *ge3* itself can be embedded (Tang 2000).

(17) GRD cannot be embedded [C]
*Ngo zi [$_{CP}$ [ZS _ heoi tai hei (ge3)] **soeng**] lo1.
1SG know ZS go watch movie SFP want SFP
'I know ZS wants to go to see a movie.' (T. T.-M. Lee 2017:62; *ge3* added)

The same can be said for DC. This is illustrated by the failure of adverbial subordination in (18), with a low SFP *le* that can be embedded elsewhere (Tang 1998; Paul 2014).[11]

(18) DC cannot be subordinated [M]
*[$_{CP}$ Ruguo [**Zhangsan** qu Meiguo le] **Zhangsan**], wo jiu qu zhao ta.
if Zhangsan go US SFP Zhangsan 1SG then go find 3SG
'If Zhangsan went to the US, I will go find him.'

Given the consistent similarities between GRD and DC, a uniform treatment is desirable. Below, I turn to the debate on whether RD is monoclausal or biclausal.

11. Yip (2020) observes that RD in Cantonese requires the presence of a *non-embeddable* SFP, whereas RD in Mandarin does not (see also (7a) where the SFP can be absent). If his generalization is correct, the ungrammaticality of (17) could alternatively be attributed to this restriction, but (18) still shows the root phenomenon status of RD independently.

2.2 The monoclausal vs. biclausal debate

RD in Chinese has received a number of formal proposals from the literature, with a major point of disagreement being the assumed clausal structure, as listed below. For work couched in non-generative framework, see the overview in Tang (2018).

(19) a. *Monoclausal* approach (Packard 1986; Siu 1986; Cheung 1997, 2005, 2009a; Law 2003; Chiang 2017, 2022; T. T.-M. Lee 2017, 2021, 2023; W. H. Wei and Li 2018; Lai 2019; Yip 2020)

b. *Biclausal* approach (Cheung 2015; Tang 2015a, 2018; Chan 2016; Chen 2016)

The core claim of the monoclausal approach is that RD consists of ***one*** clause, and the two chunks are *derivationally related*: either main chunks are moved out from RD chunks, or both chunks involve movement. Committing to leftward movement, this view often assumes that SFPs are underlyingly head-initial (see, e.g., Simpson and Wu 2002; Paul 2014; Pan 2022). For example, T. T.-M. Lee (2017)'s account involves two movement steps, as illustrated for subject GRD below:[12]

(20) T. T.-M. Lee (2017)'s monoclausal approach — *VP-SFP-S*

a. $[_{\text{FocP}}$ Foc-∅ $[_{\text{CP}}$ SFP $[_{\text{DeFocP}}$ **S$_{\text{[-Foc]}}$** [DeFoc-∅ $[_{\text{TP}}$ t_{S} VP]]]]] — *defocus mvt. in RD chunks*

b. $[_{\text{FocP}}$ **$[_{\text{TP}}$ t_{S} VP]** [Foc-∅ $[_{\text{CP}}$ SFP $[_{\text{DeFocP}}$ $\text{S}_{\text{[-Foc]}}$ [DeFoc-∅ t_{TP}]]]]] — *remnant TP mvt. to main chunks*

The biclausal approach instead assumes that the two chunks are ***two*** clauses, which are *base-generated* on their own. SFPs can underlyingly be either head-initial or head-final. There is no "cross-chunk" movement, though the RD chunk may involve movement internally. A representative is Cheung (2015)'s sluicing account for DC. He proposes that DC involves four steps. Take subject DC as an illustration:

(21) Cheung (2015)'s biclausal approach — *S-VP-SFP-S*

a. $[_{\text{CP1}}$ SFP $[_{\text{TP1}}$ S VP]], $[_{\text{CP2}}$ SFP $[_{\text{TP2}}$ S VP]] — *juxtaposition of 2 "parallel" CPs*

b. $[_{\text{CP1}}$ SFP $[_{\text{TP1}}$ S VP]], $[_{\text{CP2}}$ SFP $[_{\text{TP2}}$ S ~~VP~~]] — *VP ellipsis in TP2*

c. $[_{\text{CP}_a}$ **$[_{\text{TP1}}$ S VP]** $[_{\text{CP1}}$ SFP $t_{\text{TP1}}]$, $[_{\text{CP}_b}$ **$[_{\text{TP2}}$ S** ~~VP~~**]** $[_{\text{CP2}}$ SFP $t_{\text{TP2}}]$] — *TP mvt. in both CPs*

d. $[_{\text{CP}_a}$ S VP SFP], $[_{\text{CP}_b}$ $[_{\text{TP}}$ S ~~VP~~] $[_{\text{CP2}}$ SFP $t_{\text{TP2}}]$] — *CP2 deletion, i.e., sluicing*

While both accounts were not proposed as a unified approach to RD, one can reconcile the monoclausal one with multiple copy pronunciation to capture DC (T. T.-M. Lee 2021), or the biclasual one with empty categories in CP1 to capture GRD (as will be proposed). Therefore, more empirical data is needed to settle the debate.

12. T. T.-M. Lee (2017) adopts the split-CP hypothesis and uses FP* for projections headed by SFPs. Throughout this paper, I abstract away from the differences and use the label CP.

3 Evidence for a biclausal structure

In this section, I offer five novel pieces of evidence in support of a biclausal structure for RD. The first one concerns the copying in DC (§3.1), and the following three suggest that the main chunks have no derivational relationship with the RD chunks, in both GRD and DC (§3.2-3.4). The last one focuses on how SFP word order is derived (§3.5). To facilitate the discussion, I represent the competing structures as follows, abstracting away from minute differences among previous proposals.

(22) a. $[_{CP}\ [_{TP}\ t_{XP}$ YP] [SFP [XP_{RD} ... t_{TP}]]] Monoclausal: *(XP-)YP-SFP-XP*

b. $[_{CP1}$ (XP1) YP SFP] $[_{CP2}$ $XP2_{RD}$ [... t_{XP2} YP SFP]] Biclausal: *(XP-)YP-SFP-XP*

3.1 Imperfect copying

The first argument comes from "imperfect copying" (Cheung 2015), a variant of DC in which the RD chunk is distinct from its correlate in the main chunk. This is illustrated in (23a), where the two elements are completely different in form (pronoun vs. lexical NP) yet co-indexed, and (23b), where only some elements are identical (i.e., "partial copying").

(23) Imperfect copying

a. Gam **keoi**$_k$ zau-m-zau hou ne **Faatgwok-lou**$_k$? [C]
so 3SG leave-not-leave good SFP France-man
'So is it better for him to retreat, the French guy?' (Cheung 2015:230)

b. **Ta**$_k$ lai-le ma **ta**$_k$ **xianzai**? [M]
3SG arrive-PFV SFP 3SG now
'Has he arrived, (he) now?' (Shi 1992:176)

These cases are unexpected under a monoclausal analysis even with multiple copy realization of a movement chain (T. T.-M. Lee 2021; also parallel chains in Lai 2019), since both copies are identical:

(24) $[_{CP}\ [_{TP}$ **<XP>** ...] [SFP [**<XP>** ... t_{TP}]]] (<> = movement copies)

An alternative is to adopt *partial* Copy Deletion to delete only part of the lower copy (=trace) (Nunes 2004), as in (25). (23a) is captured by the assumptions that phonological features are Late Inserted (as in Distributed Morphology), and that the D head surviving deletion is spelled out as a pronoun (see, e.g., van Urk 2018; Yip and Ahenkorah 2023).

(25) a. $[_{CP}\ [_{TP}$ <$[_{DP}$ D ~~$[_{NP}$ French guy]~~]>=S/he ...] [SFP [<$[_{DP}$ D $[_{NP}$ French guy]]> ... t_{TP}]]]

b. $[_{CP}\ [_{TP}$ <S/he ~~now~~> has arrived] [SFP [<s/he now> ... t_{TP}]]]

This approach, however, faces difficulties in cases involving non-identical RD chunks that cannot be "put back" to the main chunks, such as (26). The RD chunk is an epithet of the corresponding material in the main chunk.

(26) Imperfect copying that lacks a monoclausal source [C, same in M]

a. [$_{DP}$ **Go-gaa** [$_{NP}$ **hungsik-ge paauce**]]$_i$ sei-zo fo aa1maa3 [$_{DP}$ ***go-gaa*** [$_{NP}$ ***je***]]$_i$!
that-CL red-GE sport.car die-PFV fire SFP that-CL thing
Lit.:'That red sport car stalled, that thing!'

b.*[$_{DP}$ **Go-gaa** [$_{NP}$ **hungsik-ge** (***je***) **paauce** (***je***)]]
that-CL red-GE thing sport.car thing

(26b) shows that the epithet and its correlate do not form a licit constituent, suggesting that the RD chunk in (26a) must originate from a different clause. These DC variants can only be analyzed as having a biclausal but not a monoclausal structure:

(27) [$_{CP1}$ That red sport car$_i$ stalled SFP] [$_{CP2}$ that thing$_i$ [...]]

Such examples are not rare in spontaneous speech. Below I give two naturally occurring examples, as cited from Cheung (2015)'s corpus and collected from daily conversation respectively. Neither of them have a corresponding monoclausal structure. (28) involves a change in the choice of classifiers (*tou* vs. *bou*), whereas (29) involves a change in degree modification (*hou* 'very' vs. *jyut* 'more').

(28) **Go-tou** dou hou ging gaa **go-bou hei**. [C]
that-CL also very awesome SFP that-CL movie
'The movie is also awesome.' (Cheung 2015:272)

(29) Houci **hou mun** aa3 **go-ceon jyut tai jyut**. [C]
seem very boring SFP that-CL more watch more
Lit.: '(It) seems very boring, the more I watch the show.' (Daily conversation)

One may object that these cases could be afterthoughts (fn. 1). However, RD chunks in imperfect copying are still sensitive to islands like the adjunct island in (30), showing that they are genuine RD.

(30)*[Janwai [**go-gaa hungsik-ge paauce**]$_i$ sei-zo fo], keoidei sin cidou aa1maa3 [**go-gaa *je***]$_i$!
because that-CL red-GE sport.car die-PFV fire 3PL then late SFP that-CL thing
Int.: 'Because that red sport car stalled, so they were late, that thing!' [C]

Another objection could be that RD is a non-uniform phenomenon, and it is only imperfect copying that has a biclasual structure. Below, I provide evidence that even other RD variants are biclasual.

3.2 Absence of licensers/binders

The second argument concerns disruption of licensing/binding relations in RD. Consider the licensing of non-interrogative *wh*-words and NPIs first. Adopting a monoclausal structure that allows re-

construction of the moved elements, a licenser can be right-dislocated and leave a gap (=GRD).[13] The licensing is achieved through reconstruction of the licenser. In contrast, a biclausal analysis rules that out in cases where there are no empty counterparts of the relevant licensers in CP1. These opposite predictions are schematized in (31).[14]

(31) a. Monoclausal approach predicts that licenser can be right-dislocated with a gap
$[_{CP}\ [_{TP}\ \ldots\ \boxed{t_i}\ \ldots$ licensee $\ldots\ ]\ [SFP\ [$**licenser**$_i\ \ldots\ t_{TP}]\ ]]$ (licensers reconstruct to $\boxed{t_i}$)

b. Biclausal approach predicts that licensers cannot be right-dislocated with a gap
$*[_{CP1}\ \ldots$ licensee $\ldots$ SFP $]\ [_{CP2}$ **licenser**$_i$ $[\ldots\ t_i\ \ldots]\ ]$ (no licensers in CP1)

Wh-phrases in Chinese obtain universal-like force when licensed by the distributive adverb *dou* 'all, each' leftward (T. H.-t. Lee 1986; Cheng 1995; Lin 1996, *i.a.*), as in (32). Assuming that there are no (base-generated) empty adverbs, this case serves as a testing ground.

(32) Universal *wh*-licensing by *dou*

a. Keoi matje ***(dou)** soeng sik gaa3. [C]
3SG what DOU want eat SFP
'S/he wants to eat everything.'

b. Shei ***(dou)** hui lai ma? [M]
who DOU will come SFP
'Will everyone come?'

The universal *wh*-licensing fails when *dou* is right-dislocated, as illustrated in (33). For the *wh*-phrase to be licensed, *dou* must also occur in the main chunks in (34). Together, they suggest that reconstruction of licensers is not available, bearing out the prediction of the biclausal approach.[15]

(33) Failure of universal *wh*-licensing in GRD

a. *Keoi matje soeng sik gaa3 **dou**. [C]
3SG what want eat SFP DOU
Int.: 'S/he wants to eat everything.'

b. *Shei hui lai ma **dou**? [M]
who will come SFP DOU
'Will everyone come?'

13. This is a reasonable prediction since other constructions that have been argued to involve remnant movement, such as *v*/VP topicalization in German (Besten and Webelhuth 1987; Ott 2018) and *v*/VP fronting in Mandarin (Huang 1993), also allow reconstruction .

14. Not all biclausal analyses make the same prediction: if we assume that CP1 involves backward deletion of elements that are pronounced in CP2 like $[_{CP1}$ ~~XP~~ YP SFP$]\ [_{CP2}$ XP ~~YP SFP~~$]$ (*cf.* Shi 1992), it would make the same prediction as the monoclausal analysis does. This paper does not make such an assumption (see §4.1).

15. As shown in (i), the *wh*-licensing by *dou* can be long-distance (Wu 1999). The failure of *wh*-licensing in (33), thus, cannot be attributed to some sort of locality constraints.

(i) a. Matje je ngo gokdak keoi **dou** m-wui sik gaa3. [C]
what thing 1SG think 3SG DOU not-will eat SFP
'I think s/he won't eat anything.' (lit.: Everything, I think he s/he won't eat.) ($\forall > \neg$)

b. Shei wo xiangxin Lisi **dou** hen xihuan. [M]
who 1SG believe Lisi DOU very like
'Everyone, I believe Lisi likes.' (Wu 1999:145)

(34) Universal *wh*-licensing in DC

a. Keoi matje **dou** soeng sik gaa3 matje **dou**. [C]
3SG what DOU want eat SFP what DOU
Int.: 'S/he wants to eat everything.'

b. Shei **dou** hui lai ma shei **dou**? [M]
who DOU will come SFP who DOU
'Will everyone come?'

Note that *dou* itself can be right-dislocated when its restrictor is a non-*wh*-nominal, such as a plural pronoun in (35) (see also Lu 1980:51 for Mandarin):[16]

(35) a. Keoidei wui lai gaa3 **dou**. [C]
3PL will come SFP DOU
'They will all come.'

b. Tamen hui lai ma **dou**? [M]
3PL will come SFP DOU
'Will they all come?'

Two conclusions can be drawn from the contrast between (33) and (35). First, the ungrammaticality of (33) should not be attributed to the (im)mobility of *dou*: according to both approaches here, it can and does undergo movement in (35). Second, since *dou*, as a distributor, needs to find its restrictor to quantify over (i.e., a plural DP) , some sort of reconstruction is still needed in (35). Note the crucial difference between (33) and (35): the former requires reconstruction in the *main* chunk so as to license the *wh*-word, whereas the latter requires reconstruction in the *RD* chunk for quantification. This asymmetry can only be captured with a biclausal structure:

(36) a. *[$_{CP1}$ ... *wh* ... SFP] [$_{CP2}$ ***dou***$_k$ [... *wh* $\boxed{t_k}$ ...]] (No licensers in CP1)

b. [$_{CP1}$ ... DP_{plural} ... SFP] [$_{CP2}$ ***dou***$_k$ [... DP_{plural} $\boxed{t_k}$ ...]] (*dou* reconstructs in CP2)

The former case is ruled out by the absence of licensers in CP1, while reconstruction in the latter case is made possible by the non-pronounced structure in CP2. In contrast, a monoclausal structure wrongly predicts both to be possible.

Similarly asymmetries are also found in Negative Polarity Item (NPI) licensing. *Cungloi* 'ever' in Cantonese is licensed by a following negation (same for *conglai* 'ever' in Mandarin, Progovac 1988; Hsieh 2001):

(37) Mou-di muitai cungloi ***(m-wui)** boudou sisat ge cyunbou. [C]
certain-CL.PL media ever not-will report fact GE all.part
'Some media will never report the whole truth.' (adapted from an Internet example)

16. (35a) has an additional (irrelevant) reading of 'They will also come,' due to the ambiguity of Cantonese *dou* between a distributor use and additive 'also' (Lee and Pan 2010; equivalent to Mandarin *ye* 'also', Shyu 1995). Mandarin *dou* in (35b) only has a distributor use.

While *cungloi* can be right-dislocated as reported in Cheung (2009a), its licensing negation cannot, as illustrated in (38). In other words, the negation cannot be "reconstructed" to the main chunk. Indeed, the ban on negation GRD is not limited to NPI licensing cases, as will be discussed in §3.3.

(38) Asymmetry in 'ever' NPI licensing in GRD [C]

a. Mou-di muitai **m-wui** boudou sisat ge cyunbou gaa3 cungloi. (GRD of NPI)
certain-CL.PL media not-will report fact GE all.part SFP ever
'Some media will never report the whole truth.'

b. *Mou-di muitai cungloi boudou sisat ge cyunbou gaa3 **m-wui**. (GRD of negation)
certain-CL.PL media ever report fact GE all.part SFP not-will

Another type of relation that may be disrupted through RD is binding relations, such as reflexive/variable binding by a universal quantifier in (39).[17]

(39) Reflexive binding by universal quantifiers
[Context: Someone asks you how your visit to a new school was yesterday. You say:]

a. Ngo tengman [**mui jat-go hoksaang**]$_i$ dou m-zungji [keoizigei$_i$ ge3 lousi] wo3. [C]
1SG hear every one-CL student DOU not-like 3SG.self GE teacher SFP
'I heard that every student doesn't like his/her teacher (lit.: himself/herself's teacher).'

b. Wo tingshuo [**mei yi-ge xuesheng**]$_i$ dou bu xihuan [taziji$_i$ de laoshi] a. [M]
1SG hear every one-CL student DOU not like 3SG.self GE teacher SFP
'I heard that every student doesn't like his/her teacher (lit.: himself/herself's teacher).'

As observed by T. T.-M. Lee (2017), reflexives may be right-dislocated, such as (40a) and (41a). This is taken to be an indication of reconstruction effects. However, right-dislocating the binder 'every student' in (40b) and (41b) is *un*grammatical, though universal quantifiers can occur in RD chunks otherwise (see §3.4). A quantifier in the RD chunk cannot "reconstruct" into the main chunk to bind the reflexive.[18]

(40) Asymmetry in reflexive/variable binding in GRD in Cantonese [C]

a. Ngo tengman [**mui jat-go hoksaang**]$_i$ dou m-zungji _ wo3 [keoizigei$_i$ ge3 lousi].
1SG hear every one-CL student DOU not-like SFP 3SG.self GE teacher
'I heard that every student doesn't like his/her teacher.'

17. There are two caveats in testing binding in RD. First, the context should be carefully controlled such that it does not contain a quantifier, since reflexives or variables can be fragment answers with their binders in a preceding question (Wei 2016:111; see §5.3 for fragment answers in RD). Second, the binder should be a quantifier (instead of a referential expression) and the bindee should be a polymorphemic reflexive that is *singular*, to avoid binding by *pro* in the main chunk (see §3.4 for discussion).

18. The contrast in (40) was confirmed by my seven Cantonese consultants. Note that Law (2003, pp.251-252) reports some examples like (40b) to be acceptable, which were however also rejected by my consultants.

b. ??Ngo tengman _ m-zungji [keoizigei$_i$ ge3 lousi] wo3 [**mui jat-go hoksaang**]$_i$ (dou).
1SG hear not-like 3SG.self GE teacher SFP every one-CL student DOU

(41) Asymmetry in reflexive/variable binding in GRD in Mandarin [M]

a. Wo tingshuo [**mei yi-ge xuesheng**]$_i$ dou bu xihuan _ a [taziji$_i$ de laoshi].
1SG hear every one-CL student DOU not like SFP 3SG.self GE teacher
'I heard that every student doesn't like his/her teacher.'

b. ??Wo tingshuo _ bu xihuan [taziji$_i$ de laoshi] a [**mei yi-ge xuesheng**]$_i$ (dou).
1SG hear not like 3SG.self GE teacher SFP every one-CL student DOU

The above contrast in reconstruction effects is surprising given a monoclausal structure, since reconstruction should not be selective to the binder-bindee distinction. On the other hand, this contrast is not surprising at all with a biclausal structure, as in (42). Without an available binder, the reflexive in CP1 cannot be bound and violates Binding Principle A. In contrast, a bindee in CP2 can be reconstructed to a position bound by the binder that is unpronounced.

(42) Biclausal approach predicts that only bindees can be right-dislocated with a gap

a. *[$_{CP1}$ ... bindee ... SFP] [$_{CP2}$ **binder**$_i$ [... t_i ...]] (no licensers in CP1)

b. [$_{CP1}$ ... **binder** ... SFP] [$_{CP2}$ bindee$_k$ [**binder** ... $\boxed{t_k}$ ...]]
(bindees reconstruct and are bound by unpronounced binders in CP2)

3.3 Polarity reversal

The third argument concerns whether negation can be right-dislocated. Recall that heads like modals and verbs can be right-dislocated in GRD/DC (T. T.-M. Lee 2017, 2021, 2022). Assuming a monoclausal structure, we might expect that movement of negation is allowed in GRD, as in (43a). In the biclausal structure in (43b), however, there is no empty negation in CP1. CP1 thus denotes an affirmative proposition. It contradicts CP2 that has a negative polarity, predicting unnaturalness.[19]

(43) a. Monoclausal approach predicts that negation can be right-dislocated with a gap
[$_{CP}$ [$_{TP}$ ... t_i ...] [SFP [**negation**$_i$ ... t_{TP}]]] (head movement of negation)

b. Biclausal approach predicts that negation cannot be right-dislocated with a gap
*[$_{CP1}$ ... (affirmative) ... SFP] [$_{CP2}$ **negation**$_i$ [... t_i ...]] (contradiction)

The attested pattern again conforms with the prediction of the biclausal approach. Negation cannot leave a gap in the main chunk as in (44a), nor can a negated modal be right-dislocated as in (44b). Only when the negation occurs twice (i.e., DC) are the sentences well-formed, as shown in (45).[20]

19. Contradictions are not ungrammatical, although systematic contradictions might be (see the discussion in Gajewski 2002).

20. Just like testing binding in RD, the test of negation GRD must also be carefully controlled such that the preceding context does not contain negation (see the discussion in §5.3). The same holds of the argument in §3.4.

(44) Negation cannot be right-dislocated in GRD

a. *Keoi _ heoi-gwo Meigwok gaa3 **zung mei**. [C]
3SG go-EXP US SFP still not.yet
Int.: 'S/he hasn't been to the US yet.'

b. *Ta _ qu Meiguo a **bu hui**. [M]
3SG go US SFP not will
Int.: 'S/he won't go to the US.'

(45) Negation can be right-dislocated in DC[21]

a. Keoi **zung mei** heoi-gwo Meigwok gaa3 **zung mei**. [C]
3SG still not.yet go-EXP US SFP still not.yet
'S/he hasn't been to the US yet.'

b. Ta **bu hui** qu Meiguo a **bu hui**. [M]
3SG not will go US SFP not will
'S/he won't go to the US.'

The oddness of (44) is comparable to that of juxtaposing two contradicting propositions:

(46) Keoi heoi-gwo Meigwok gaa3. #Keoi **zung mei** heoi-gwo Meigwok gaa3. [C]
3SG go-EXP US SFP 3SG still not.yet go-EXP US SFP
'S/he has been to the US. #S/he hasn't been to the US yet.'

Also recall that with NPI licensing, the negation cannot be right-dislocated (=38). Those cases are even more telling, since the main chunk contains an NPI that *requires* negative polarity, but the attempted reconstruction of negation still fails.

The restriction is not limited to syntactic negation. Any expression that conveys semantic negation cannot be right-dislocated. One case is NEG-*wh* constructions (Cheung 2009b), where a *wh*-word receives a negative reading. GRD of the NEG-*wh* word is not possible in (47).

(47) NEG-*wh* cannot be right-dislocated [M, same in C]

a. Wo **na(r)** zhidao ne?! (baseline)
1SG where know SFP
'No way can I know.' (Cheung 2009b:307)

b.*Wo _ zhidao ne **na(r)**?! (GRD)
1SG know SFP where
Int.: 'No way can I know.'

Another case is the rhetorical question marker *saimat* 'needn't, (lit.) need-what' in Cantonese (Tang 2022; see Choi 2022 for the NPI *sai* 'need'). In (48), *saimat* cannot occur in RD chunks with a gap in the main chunk, again following from a biclausal structure.

21. Chan (2016) and Chen (2016) obverse that a single negation cannot be right-dislocated in DC, contrasting with (45) where an adverb/modal is copied together. I offer no explanation for this difference. Note also that among my five Mandarin consultants, four accepted (45b) but one rejected it, pointing to individual variations.

(48) Rhetorical question marker *saimat* cannot be right-dislocated [C]

a. **Saimat** man keoi zek? (baseline)
need.what ask 3SG SFP
'What's the point of asking him?'

b.*_ man keoi zek **saimat**? (GRD)
ask 3SG SFP need.what
Int.: 'What's the point of asking him?'

((a) from Tang 2022:307)

3.4 Availability of *pro*

The fourth argument is based on the referential possibilities of subject *pro*. In a monoclausal analysis, subject gaps in main chunks are created by movement. The subject may be a definite DP or a quantifier. In contrast, subject gaps in a biclausal analysis are empty pronouns. Since quantifiers are not referential expressions, *pro* cannot refer to them in the absence of variable binding (see §4.1; also Cheung 2015:254, fn.12). We then expect that quantifiers cannot be right-dislocated.

(49) a. Monoclausal approach predicts that quantifiers can be right-dislocated with a gap
$[_{CP}\ [_{TP}\ \ldots\ t_i\ \ldots\ ]\ [SFP\ [\textbf{quantifier}_i\ \ldots\ t_{TP}]\ ]]$ (quantifiers can move)

b. Biclausal approach predicts that quantifiers cannot be right-dislocated with a gap
$*[_{CP1}\ \ldots\ pro_i\ \ldots\ SFP\ ]\ [_{CP2}\ \textbf{quantifier}_i\ [\ldots\ t_i\ \ldots]\ ]$ (*pro* cannot refer to quanitifers)

As exemplified in (50), quantifiers like 'few NP' and 'no NP' cannot occur in GRD, confirming the prediction in (49b). For the sentences to be grammatical, the quantifiers need to be "copied" in DC.

(50) Quantifiers can be right-dislocated in DC but not in GRD[22]

a. Tenggong *(**housiu-jan**) wui lai zaa3, **housiu-jan**. [C]
hear.say few-person will come SFP few-person
'I heard that few people will come.'

b. Xianzai *(**meiyou-ren**) xiangxin ni le, **meiyou-ren**. [M]
now nobody believe 2SG SFP nobody
'Now nobody believes you.'

Yet, there seem to be some counter-examples: 'every NP' and 'small part (of) NP' can be right-dislocated in (51). Note that 'small part (of) NP' and 'few NP' both express a small proportion.

(51) Some quantifiers can be right-dislocated in GRD

a. Tenggong _ wui lai gaa3, **siuboufan jan**. [C]
hear.say will come SFP small.part person
'I heard that few people (lit.: small portion of people) will come.'

b. Xianzai _ xiangxin ni le, **mei yi-ge ren** (dou). [M]
now believe 2SG SFP every one-CL person DOU
'Now everyone believes you.'

22. A slight pause is preferred in these DC cases, particularly in Mandarin.

Nevertheless, an overt correlate can be realized in the main chunks in these cases (=52). A pronoun can even be pronounced in the RD chunks and form a partitive construction with the quantifier.

(52) a. Tenggong gaaklaibaan$_k$ wui lai gaa3, (keoidei-ge$_k$) **siuboufan jan**. [C]
hear.say next.class will come SFP 3PL-GE small.part person
Lit.: 'I heard that the other class (as a group) will come, few of them.'

b. Xianzai Jiaban$_k$ xiangxin ni le, (tamen-de$_k$) **mei yi-ge ren** (dou). [M]
now A.class believe 2SG SFP 3PL-DE every one-CL person DOU
Lit.: 'Now Class A believes you, each of them.'

I suggest that the difference between these two classes of quantifiers lies in the availability of a partitive use. 'No NP' and 'few NP', at least in Chinese, cannot form partitives:[23,24]

(53) a.*keoidei-ge housiu-jan [C] b.*tamen-de meiyou-ren [M]
3PL-GE few-person 3PL-DE nobody
Int.: 'few of them' Int.: 'none of them'

Hence, (51) can be analyzed as (54), where *pro* serves as the restriction of the quantifier in the RD chunks. This option is not available in (50).[25]

(54) [$_{CP1}$ ... *pro*$_k$ ... SFP] [$_{CP2}$ [*pro*$_k$ [**quantifier**]]$_i$ [... t_i ...]]

3.5 SFP clustering

The last argument comes from SFP clustering in RD. To begin with, SFPs can be stacked in Chinese, as in the sentences with a canonical word order in (55). The left ones (*laa3* and *le*, both temporal) are structurally lower, and the right ones (evidential *wo3* and epistemic *ba*) are structurally higher (Sybesma and Li 2007; Paul 2014).

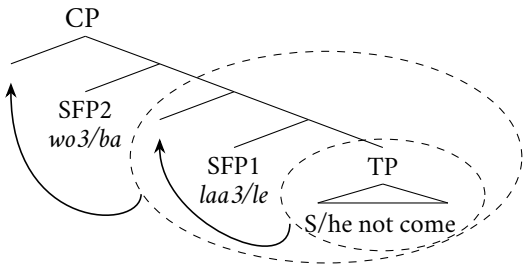
(55) SFP clusters in canonical sentences

a. Keoi m-lai **laa3 wo3**. [C] b. Ta bu lai **le ba**. [M]
3SG not-come SFP SFP 3SG not come SFP SFP
'I heard s/he won't come.' 'I guess s/he won't come.'

With the head-initial assumption of SFPs, their sentence-final order is derived by "snowball" Comp-to-Spec movement (Simpson and Wu 2002; Pan 2022, *i.a.*), as illustrated in (56).[26]

23. The use of *ge/de* is necessary to avoid a topic parse of the pronouns.
24. The difference potentially has to do with the internal structure of 'no NP' and 'few NP', which has been argued to be distinct from other quantifiers like 'every NP' in Chinese (Paul 2021).
25. An alternative is to say some quantifiers can be directly referred to by *pro*, some cannot. However, first, it is unclear what governs this division, especially given the contrast between 'small part (of) NP' and 'few NP'. Second, the asymmetry in binding we saw in §3.2 would be puzzling: if *pro* can be interpreted as a universal quantifier, why does the variable binding fail in (40b) and (41b)? Therefore, I conclude that this alternative is not tenable.
26. The argument below does not extend to a head-final SFP theory of RD.

(56) "Snowball" Comp-to-Spec movement in canonical sentences



Importantly, the SFP clusters in RD must have the same linear order as in canonical sentences (see also Cheung 2009a:202), as in (57).

(57) SFP clusters in RD (GRD and DC)

a. (Keoi) m-lai **laa3 wo3** keoi. [C]
3SG not-come SFP SFP 3SG
'I heard s/he won't come.'

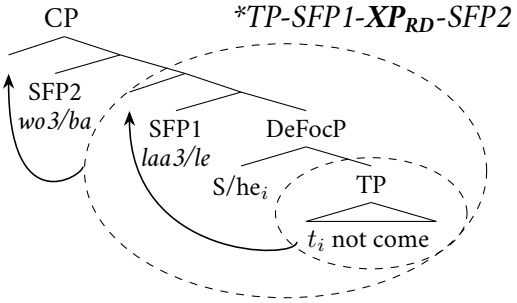
b. *{_/ Keoi} m-lai **wo3 laa3** keoi.
3SG not-come SFP SFP 3SG

c. (Ta) bu lai **le ba** ta. [M]
3SG not come SFP SFP 3SG
'I guess s/he won't come.'

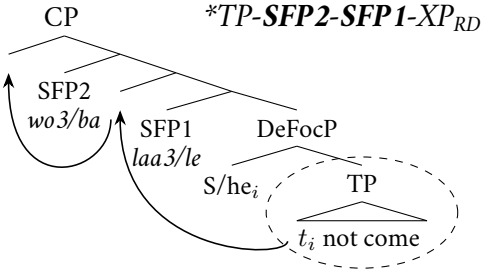
d. *{_/ Ta} bu lai **ba le** ta.
3SG not come SFP SFP 3SG

Applying the "snowball" movement in RD with a monoclausal analysis (e.g., T. T.-M. Lee 2017), however, would yield an unattested word order where SFP2 (*wo3/ba*) follows the RD chunks in (58) (=60), since DeFocP is lower than SFP1 (*laa3/le*). Alternatively, the remnant TP may undergo Spec-to-Spec movement like (59) so both SFPs precede RD chunks. The SFP ordering, however, is now reversed. SFP1 follows SFP2 (**wo3/ba* < *laa3/le*), which is ungrammatical as we saw above.

(58) "Snowball" movement in RD



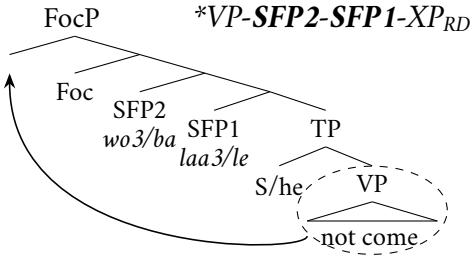
(59) Spec-to-Spec movement in RD



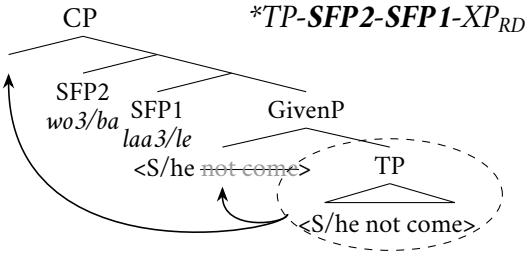
(60) *{_/ Keoi} m-lai laa3 **keoi** wo3. [C, same in M]
3SG not-come SFP 3SG SFP
Int.: 'I heard s/he won't come.'

Note that this problem is general to all existing monoclausal accounts that assume head-initial SFPs. Other analyses, such as Cheung (2009a)'s one-step focus movement and Lai (2019)'s parallel copying also predict the unattested word order with reversed SFPs like (59), as shown in (61) and (62) respectively.

(61) SFP clustering in Cheung (2009a)



(62) SFP clustering in Lai (2019)



In contrast, if RD has a biclausal structure, the SFP cluster simply belongs to CP1. It is compatible with both head-initial and head-final assumptions of SFP. With the former, regular "snowball" movement applies in CP1; with the latter, no movement occurs, as schematized in (63). Hence, I conclude that the biclausal approach is the most optimal option for capturing SFP clusters in RD.

(63) a. $[_{CP1}\ [_{FP}$ TP [SFP1 t_{TP}]] [SFP2 t_{FP}]] $[_{CP2}$ XP$_{RD}$ [... t_{XP} ...]] (head-intital SFPs)

b. $[_{CP1}\ [_{FP}$ TP SFP1] SFP2] $[_{CP2}$ XP$_{RD}$ [... t_{XP} ...]] (head-final SFPs)

3.6 Interim summary

I have argued here that RD, including both GRD and DC, is consistently biclausal, not monoclausal. The discussed biclausal properties are summarized in (64). In addition, other core properties of RD discussed above are repeated in (65).

(64) Biclausal properties of right dislocation in Chinese

a. Non-identical RD chunks are allowed in DC (i.e., imperfect copying);
b. Materials in RD chunks cannot license/bind materials in main chunks;
c. Polarity reversal between main chunks and RD chunks is prohibited;
d. Subject gaps in main chunks display parallel referential potential as *pro*;
e. SFP clusters retain the canonical linear order.

(65) Core properties of right dislocation in Chinese (in §2.1)

a. Both (i) main chunks and (ii) RD chunks allow constituents and non-constituents;
b. RD chunks are in a movement-derived position;
c. RD chunks must be defocused;
d. RD is a root phenomenon and resists embedding.

4 Towards a uniform biclausal syntax

I propose that RD in Chinese uniformly involves coordination of two clauses, the main chunks and the RD chunks. The proposal is an extension of Cheung (2015)'s account of DC with non-trivial refinement. It consists of the four major components in (66), as illustrated in (67) (only glosses are given).

The two RD variants, GRD and DC, share the same basic structure with the minimal difference that only GRD contains empty categories in CP1.

(66) The uniform biclausal syntax of right dislocation

a. **Empty categories**: The apparent gaps in the main chunks (CP1) are empty categories.

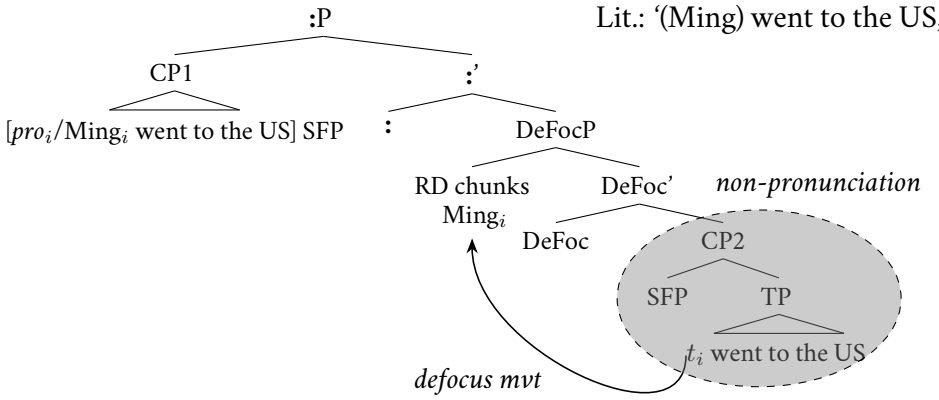
b. **Defocus movement**: The pronounced elements in the RD chunks undergo defocus movement to DeFocP (above CP2), leaving a remnant CP2.

c. **Non-pronunciation**: The remnant CP2 is not pronounced.

d. **Coordination**: CP1 and DeFocP are coordinated by a specifying conjunction **:**.

(67) A sample derivation of right dislocation of subjects (GRD/DC)

Lit.: '(Ming) went to the US, Ming.' *cf.* (2)-(3)



Without going into details, we can already see how some properties of RD in (64)-(65) fall out. Imperfect copying (=64a) comes for free since CP1 and DeFocP need not to be identical, at least for the pronounced part. The canonical ordering in SFP clusters (=64e) is also predicted, as the SFPs belong to CP1. In the following, I build the proposal incrementally by elaborating on each of the four components, and show how they capture the other properties. I first discuss the empty categories in the main chunks in §4.1, then the defocus movement and non-pronunication of its remnant in the RD chunks in §4.2-4.3, and finally how the two chunks are put together in §4.4.

4.1 Empty categories in the main chunk

Empty categories in the main chunk (=CP1) underpin the difference between GRD and DC. I propose that CP1 allows three types of (base-generated) empty elements that correspond to the pronounced elements in CP2: null subjects (i.e., *pro*), null objects, and empty verbs. I further suggest that no other empty categories are allowed in CP1, and CP1 does not involve backward deletion that depends on CP2.[27] In the case of GRD of adjuncts, CP1 simply lacks the adjuncts. The same applies to functional heads like negation and modals. We then obtain four types of GRD in (68).

27. This possibility is entertained in Shi (1992). Cheung (2009a) also mentions scattered deletion as an alternative that is rejected by him. Note that my proposal does not prohibit deletion in CP1 that depends on *preceding* sentences (see §5.3).

(68) Four types of GRD classified by empty categories in CP1

a. [$_{CP1}$ $e_{\mathbf{S}}$ V O SFP] [$_{CP2}$ S [...]] (Empty subject)

b. [$_{CP1}$ S V $e_{\mathbf{O}}$ SFP] [$_{CP2}$ O [...]] (Empty object)

c. [$_{CP1}$ S $e_{\mathbf{V}}$ O SFP] [$_{CP2}$ V [...]] (Empty verb)

d. [$_{CP1}$ S V O SFP] [$_{CP2}$ X(P) [...]] (No empty categories)

The analysis in (68) captures the following. First, it derives the apparently flexible constituency of main chunks as in (65ai) above: the first and last types give a pronounced constituent (e.g., VP or CP), and the second and third types result in apparent non-constituents. Second, this restrictive view explains the prohibition on GRD of licensers (=64b) and polarity reversal (=64c): there is no empty *dou* or empty negation possible in CP1. Third, the three types of empty categories are independently attested in Chinese. Therefore, GRD should be subject to the same structural constraints on these empty categories. Below, I briefly show that this is the case with empty subjects, and postpone the discussion on empty objects and verbs to §5.

Empty subjects in Chinese have been argued to be silent pronoun *pro* (Huang 1982 *et seq.*). As already discussed, GRD of quantifiers is banned (=64d), which is reduced to the unavailability of corresponding *pro*. To see how *pro* fails to refer to a quantifier, consider (69) first. Here, *pro* in the adjunct can refer to the definite subject that does not c-command it.

(69) [*pro*$_i$ yi hui dao jia], Zhangsan$_i$ jiu ku. [M, same in C]
once return to home Zhangsan then cry
'As soon as he$_i$ arrived home, Zhangsan$_i$ began to cry.' (Huang 1989:198, index added)

In contrast, it is obligatory for a quantifier to c-command *pro* for co-indexing (i.e., variable binding) as in (70). Otherwise, *pro* cannot refer to the quantifier.

(70) *pro* cannot refer to quantifiers [M, same in C]

a. {**Meiyou-ren/ henshao-ren/ mei yi-ge ren dou/ shaobufen ren**}$_k$
nobody/ few.people/ every one-CL person DOU/ small.part person
[*pro*$_k$ yi hui dao jia] jiu ku.
once return to home then cry
'Nobody/few people/everyone/small portion of people began to cry as soon as they arrived home.'

b. *[*pro*$_k$ yi hui dao jia], {**meiyou-ren/ henshao-ren/ mei yi-ge ren**
once return to home nobody/ few.people/ every one-CL person
dou/ shaobufen ren}$_k$ jiu ku.
DOU/ small.part person then cry

4.2 Defocus movement in the RD chunk

Turning to the RD chunk, I follow T. T.-M. Lee (2017) and propose that the pronounced materials undergo defocus movement to the periphery.

(71) [CP1] [$_{\text{DeFocP}}$ $\text{XP}_{i\,\textbf{[-Foc]}}$ [$_{\text{DeFoc'}}$ DeFoc [$_{\text{CP2}}$ ... t_{XP} ...]]]

DeFoc, as a syntactic projection, is the counterpart of Foc(us). I assume that defocused elements carry [-Foc] that must be checked by a DeFoc head by moving to its specifier, as opposed to focused elements which bear [+Foc]. DeFocP projects higher than CP (or equivalent split-CP projections), as evidenced by the root phenomenon nature of RD (=65d). Note that defocus has morphosyntactic manifestation across languages, such as p-movement in Italian/Spanish or anti-focus markers in Bantu (see T. T.-M. Lee 2020 and references therein).[28] Therefore, defocus is not merely non-focus, and defocused elements in RD should be treated as having [-Foc] rather lacking any [(+)Foc].[29]

The movement properties (=65b), such as island effects and reconstruction for Principle C (as well as Principle A, §3.2), follow automatically, as shown in (72).

(72) a.*[CP1] [$_{\text{DeFocP}}$ $\text{XP}_{\textbf{[-Foc]}}$ [$_{\text{DeFoc'}}$ DeFoc [$_{\text{CP2}}$ ... [$_{\text{island}}$ ... t_{XP} ...] ...]]]] (Island violation)

b.*[CP1] [$_{\text{DeFocP}}$ $\text{XP}_{k\,\textbf{[-Foc]}}$ [$_{\text{DeFoc'}}$ DeFoc [$_{\text{CP2}}$ ... YP_k [... t_{XP_k}] ...]]]] (Reconstruction for Principle C)

Moreover, the movement can derive non-constituents in RD chunks (=65aii) by assuming Multi-Spec for DeFocP. For example, a *S-Mod* RD chunk like (73) can be derived by multiple movement of the subject and modal, along the lines of T. T.-M. Lee (2017, 2021). Note that the derivation here involves (long) head movement of modals to specifier positions, which has been independently argued for by T. T.-M. Lee (2022), Yip and Lee (2022), and Lai and Li (2023) for Chinese.

(73) (Keoi wui) heoi Meigwok aa3 **keoi wui**. *(S-Mod-)VP-SFP-**S-Mod***
3SG will go US SFP 3SG will
'S/he will go to the US.' [C, same in M]

(74) Non-constituents in RD chunks as multiple movement
[CP1] [$_{\text{DeFocP}}$ $\text{S}_{\textbf{[-Foc]}}$ [$_{\text{DeFoc'}}$ $\text{Mod}_{\textbf{[-Foc]}}$ [$_{\text{DeFoc'}}$ DeFoc ... [$_{\text{TP}}$ t_{S} t_{Mod} VP]]]] *multiple mvt.*

Note that the word order in RD chunks cannot be inverted (i.e., **Mod-S*). That is, the linear order must be preserved after movement. This is not surprising, given that multiple *wh*-fronting in

28. While I distinguish defocus from givenness (see §2.1), givenness-related movement is also widely attested in natural languages, such as Czech, Russian, and Serbo-Croatian (see Kučerová 2012).
29. Defocus is not "topic" either, since topics can be contrastive. T. T.-M. Lee (2020) also reports that topic particles are prohibited in RD chunks.

[+MFS] (=Multiply Filled Spec) languages also have similar constraints (e.g., Rudin 1988). Alternatively, T. T.-M. Lee (2021)'s account based on Cyclic Linearization can be adopted here.

While the RD elements must preserve the linear order in the main chunks, they may be discontinuous. A relevant example is found in Cheung (2015)'s corpus:

(75) Discontinuous RD chunks ***S***-*Adv*-***V***-*CP*-*SFP*-***S***-***V***

Keoi dou **gokdak** hai gei hou gaa **keoi** **gokdak**. [C]
3SG also feel COP quite good SFP 3SG feel
'He also felt that it is quite good.' (Cheung 2015:271)

As will be discussed in §4.3, the non-pronounced part in CP2 must be syntactically identical to CP1. Thus, I propose that the adverb *dou* 'also', in-between the subject and the verb, is also present in CP2. The *S*-*V* chunk here is discontinuous. A multiple movement analysis is able to derive these cases:[30]

(76) [CP1] [$_{\text{DeFocP}}$ S$_{\textbf{[-Foc]}}$ [$_{\text{DeFoc'}}$ V$_{\textbf{[-Foc]}}$ [$_{\text{DeFoc'}}$ DeFoc ... [$_{\text{TP}}$ t_{S} Adv t_{V} CP]]]] *multiple mvt.*

4.3 Non-pronunciation in the RD chunk

The defocus movement leaves a remnant CP2. I follow Cheung (2015) in assuming that the CP2 is unpronounced/"deleted" in the PF, and only the defocus-moved element(s) are pronounced. I further propose the following licensing condition based on syntactic identity with main chunks:

(77) The licensing condition on non-pronunciation in RD chunks
The unpronounced materials (excluding traces) in CP2 must be syntactically identical to CP1.

The effect of (77) can be witnessed in (78). The modal *wui* 'will' is incompatible with the perfective negation *mei* 'not yet', and right-dislocating *wui* does not change the ungrammaticality.

(78) Aspect mismatches are prohibited in RD [C, same in M]

a. Keoi wui (*mei) heoi Meigwok aa3.
3SG will not.yet go US SFP
'S/he will (*not yet) go to the US.'

b. *[$_{\text{CP1}}$ *pro*$_k$ mei heoi Meigwok aa3] **keoi** **wui**. (GRD)
not.yet go US SFP 3SG will
Lit.: 'Not yet go to the US, s/he will.'

30. Apart from adverbs, arguments may also be "skipped" in RD chunks, such as the subject in (i):

(i) **Na** wo **jiu** shi-shi ba **na** **jiu**. [M]
so 1SG then try-try SFP so then
'(If so,) then I'll give a try.' (Luke 2004:41)

Note that cases like **S*-*V*-*O*-*SFP*-*S*-*O* with a gapped verb in the RD chunk are generally bad. I speculate that it is due to the object restriction in DC (see fn. 7).

(78b) indicates that the deletion site in the RD chunk must include the negation, as shown in (79). This contrasts with the ellipsis in (80), which may target VP instead of NegP.

(79) *[CP1] [$_{\text{DeFocP}}$ **keoi**$_k$ **wui**$_j$ [$_{\text{CP2}}$ t_k t_j [$_{\text{NegP}}$ mei [$_{\text{VP}}$ heoi Meigwok]] aa3]] (=78b)

(80) Keoi mei heoi Meigwok aa3, daanhai keoi houfaai zau wui (heoi Meigwok).
3SG not.yet go US SFP but 3SG soon then will go US
'S/he hasn't gone to the US yet, but s/he will (go to the US) soon.'

Furthermore, semantic identity alone does not suffice to license the deletion in RD chunks, as evidenced by the absence of "vehicle change". Vehicle change refers the phenomenon when a bound R-expression in an elliptical site is replaced with a pronoun to avoid Principle C violation (Fiengo and May 1994), as illustrated by the VP ellipsis in (81).

(81) Ngo m-wui seon Aaming$_k$ hoji caamgaa beicoi. **Keoi**$_k$ zigei dou m-wui
1SG not-will believe Ming may join competition 3SG self also not-will
(seon {keoi$_k$/ *Aaming$_k$} hoji caamgaa beicoi) lo1.
believe 3SG Ming may join competition SFP
'I won't believe Ming can join the competition. He himself won't as well.' [C, same in M]

Parallel cases, however, cannot be constructed for RD. In (82), the matrix subject pronoun in the RD chunk cannot be co-indexed with the unpronounced, embedded R-expression *John*.[31] Vehicle change is not possible, though replacing *John* with a pronoun does not change the propositional content. In other words, strict syntactic identity is required for non-pronunciation in RD chunks.

(82) No vehicle change effects in RD chunks [C, same in M]

a. [$_{\text{CP1}}$ John$_k$ m-hoji caamgaa beicoi lo1] **keoi**$_{j/*k}$ **soengseon**.
John not-may join competition SFP 3SG believe
Lit.: 'John$_k$ cannot join the competition, he$_{j/*k}$ believes.' (adpated from Cheung 2009a:216)

b. [CP1] [$_{\text{DeFocP}}$ **keoi**$_{j/*k}$ **soengseon**$_i$ [$_{\text{CP2}}$ t_j t_i John$_k$ m-hoji caamgaa beicoi lo1]]

4.4 Coordination of the two chunks

After discussing the internal make-up of main chunks and RD chunks, now we turn to how they are coordinated. In Ott and de Vries (2016)'s work on Germanic languages, they propose that RD (with backgrounded *d*XPs, in their terms) and afterthoughts, though both being biclausal, differ in the way the two clauses are connected. The former involves a specifying coordination **:** (colon) (a term due to Koster 2000), whereas the latter involves simple juxtaposition, as illustrated in (83) with corresponding English examples.

31. Cheung (2009a) takes (82) to involve reconstruction of the main chunk to the RD chunk under a monoclausal approach.

(83) a. [$_{:P}$ [$_{CP1}$ ... correlate$_i$ ...] [$_{:'}$ **:** [$_{CP2}$ *d*XP$_i$ [...]]]] (RD)
E.g., (Q: Do you know Peter?) Yes, I know him$_i$, Peter$_i$. (Ott and de Vries 2016:643)

b. [$_{CP1}$ ... correlate$_i$ ...] [$_{CP2}$ *d*XP$_i$ [...]] (afterthoughts)
E.g., I met a star$_i$ today: John Travolta$_i$! (Ibid:643)

In (83a), the two clauses "stand in an asymmetrical semantic relationship", with the second clause "specifying the first by adding relevant information to it" (p.649). Notice that the information *can* be discourse-given, such as *Peter* in (83a) (though does not need to be, see §2.1). Afterthought clauses, in contrast, are independent of the first one and usually introduce new information.

I follow Ott and de Vries (2016) in assuming that the two chunks in RD are *asymmetrically* coordinated by **:** to form a larger structure **:**P, instead of simple juxtaposition (*contra.* Cheung 2015). Put differently, the two clauses in RD are *not* independent of each other, unlike afterthoughts.[32]

(84) [$_{:P}$ [$_{CP1}$ ... {e_i / XP1$_i$} ... SFP] [$_{:'}$ **:** [$_{DeFocP}$ XP2$_{i\textbf{[-Foc]}}$ [$_{DeFoc'}$ DeFoc [$_{CP2}$ ... t_{XP2} ...]]]]]

In the case of GRD, XP2 specifies the descriptive content of the empty category e_i in CP1. The same can be said for DC with partial or imperfect copying. In the case of DC with "complete" copying, I suggest that DeFocP specifies that XP is defocused: XP1 does not carry [-Foc] but XP2 does. Moreover, since the coordination is asymmetrical, it is not possible to flip the order of CP1 and DeFocP. That is, the latter must follow the former. This analysis is also in line with the intuition from Shi (1992), Luke (2004), and Tang (2018) that the RD chunk is an "extension" of the main chunk.

A question that arises is why DeFocP must be coordinated, given that fragment answers can stand alone and be licensed by preceding questions in a inter-sentential configuration. I suggest that this is due to a constraint that every sentence must contain a focus. As known as the "incompleteness effects", many simple SVO sentences in Chinese do not sound natural or "complete" as in (85a) (% = "incomplete"). One way to salvage the sentence is by adding a contrast as in (85b) (Tang and Lee 2000; Sun 2022, *i.a.*).

(85) Contrastive focus renders a sentence "complete" [M, same in C]

a. %Zhangsan xie xin.
Zhangsan write letter
Int.: 'Zhangsan writes/wrote letters.'
(Tang and Lee 2000, ex.1)

b. Ta xie xin, wo kan dianshi.
3SG write letter, 1SG watch TV
'He will write letters, and I will watch TV.'
(Ibid, ex.26)

Tang and Lee (2000) propose that every sentence must either be tensed *or* focused, the latter in the sense of anchoring an item/event with respect to a reference set of items/events. I take a step further and suggest that every sentence must *contain a focus*, tensed or not (see also Culicover and

32. Ott and de Vries (2016) also suggest that (83) derives a difference in prosody. In backgrounding RD, the connected structure gives rise to a single prosodic unit, whereas in afterthoughts, the second clause is independent and forms its own prosodic unit. Similar contrasts are experimentally confirmed in Cantonese and Mandarin by Yip (2020) (see also Zhang 2022). Yip shows that GRD consists of one intonational phrase, unlike afterthoughts which are two intonational phrases (e.g., allowing two boundary tones).

Rochemont 1983; Gussenhoven 1983). When a narrow focus is absent, it is the whole sentence that serves as the (broad) focus. Since the (pronounced) material in DeFocP is defocused, focus anchoring fails. Therefore, DeFocP must be coordinated with another CP to form a sentence that can bear focus (i.e., in CP1).[33]

To sum up this section, I have developed a biclausal approach that unifies GRD and DC and reduces their differences to the use of empty categories. In the next section, I discuss more on how empty categories constrain the possibility of GRD.

5 More on empty categories in GRD

Recall that only three types of empty elements are allowed in CP1: subjects, objects, and verbs. Empty subjects have been discussed in §4.1. Below, I demonstrate that empty objects and empty verbs are also independently attested in Chinese languages, and positing them in GRD derives various restrictions on GRD, many of which have not been noticed in the literature before.

5.1 Empty objects

In Chinese, empty objects are allowed even without a linguistic antecedent as in (86a). Under the current analysis, object GRD in (86b) is derived from (86a).

(86) Empty objects [C, same in M]

[Context: Tommy is showing off his new MacBook. You say:]

a. Ngo dou jau $e_{\mathbf{O}}$ laa1.
1SG also have SFP
'I also have (a Mac).'

b. [$_{\text{CP1}}$ Ngo dou jau $e_{\mathbf{O}}$ laa1] [$_{\text{DeFocP}}$ **mek1** **gei1**]. (GRD)
1SG also have SFP Mac computer
'I also have a Mac.'

Following the influential work by Li (2005) and Aoun and Li (2008), empty objects in Chinese have two licensing conditions, which differ from those licensing subject *pro*:[34]

33. One way to understand this constraint is to adopt the view that every utterance in a discourse is either posing a Question Under Discussion (QUD) or answering it by assertion (Roberts 1996). Since a question is a set of possible answers (i.e., an alternative set) following Hamblin's semantics, both the questions and answers contain alternative-based focus. Such focus is banned in DeFocP, and thus DeFocP cannot be a standalone question/assertion. Note that this suggestion is in line with Sun (2022)'s proposal for "incompleteness effects", which she argues to be derived from QUD-sensitivity.

34. I set aside the nature of empty objects, which has been claimed to be a result of ellipsis, (movement of) *pro*, or a true empty category (TEC) with only categorial features. See Li (2014) for a comprehensive discussion.

(87) Licensing conditions on empty objects

a. Empty objects must be subcategorized by the verb.

b. Empty objects must occur in a Case position.

According to their work, CP complements are subcategorized but crucially not in a Case position. Verbs like *renwei* 'think' subcategorize for CPs only:

(88) *Renwei* 'think' only takes CP complements [M, same in C]

Wo renwei {a. *[$_{DP}$ na-jian shi] / b. [$_{CP}$ ta hen congming]}.
1SG think that-CL matter 3SG very smart
'I thought {*that matter/ he was smart}.' (adapted from Aoun and Li 2008:264)

If *renwei* takes a DP $e_{\mathbf{O}}$, (87a) is not fulfilled. If its $e_{\mathbf{O}}$ is a CP, (87b) is violated. As a result, empty objects are not allowed in (89a) (unless *zheme* 'so' is added; see T.-C. Wei and Li 2016). Importantly, GRD also shows the same restriction in (89b).

(89) Prohibition of empty CP complements [M, same in C]

a. ... Tamen ye *(zheme) renwei $e_{\mathbf{O}}$ ma? (as a continuation of (88b))
3PL also so think SFP
'... did they also think *(so)?' (adapted from Ibid:264, SFP *ma* added)

b. [$_{CP1}$ Tamen *(zheme) renwei $e_{\mathbf{O}}$ ma], [$_{DeFocP}$ **ta hen congming**]? (GRD)
3PL so think SFP 3SG very smart
Lit.: 'Did they think *(so), he was smart?'

Li (2005) also suggests that post-verbal duration/frequency phrases (DurP/FreqP) are Case-licensed but not subcategorized. Empty objects cannot refer to DurP/FreqP, as illustrated by the lack of ambiguity in (90a). Here, the negation scopes over the verb rather than a FreqP, resulting in a negated event reading (vs. (91)). GRD behaves alike in (90b).[35]

(90) Prohibition of empty post-verbal duration/frequency phrases [M, same in C]

a. Wo zuo-le **san-ci** le; keshi ta (genben) mei zuo (*$e_{\mathbf{FreqP}}$) a.
1SG do-PFV three-time SFP but 3SG at.all not.PFV do SFP
'I've done it for three times; but s/he didn't do it (at all).'
NOT: '... but s/he didn't do three times (and only did two times).'
(adapted from Li 2005:12, SFP *a* and translation added)

b. *[$_{CP1}$ Ta (genben) mei zuo $e_{\mathbf{FreqP}}$ a] [$_{DeFocP}$ **san-ci**]. (GRD)
3SG at.all not.PFV do SFP three-time

35. There are more cases that prohibit empty objects, including (i) inner objects co-occurring with an affectee, (ii) objects taken by accusative verbs, and (iii) direct objects followed by secondary predicates (Li 2014). All these cases disallow GRD. For other constraints concerning the verbs and referential properties of the objects, see Zhang and Tang (2013).

(91) Ta mei zuo **san-ci** a.
3SG not.PFV do three-time SFP
'S/he didn't do three times (and only did two times).'

5.2 Empty verbs

Empty verbs are also robust in Chinese. A null copula is not uncommon for predication in Mandarin (Yue-Hashimoto 1969; Tang 2001a) as well as in Cantonese (Tang 2016), as exemplified in (92a). The copula GRD in (92b) is analyzed on a par with (92a).

(92) Empty copula [C, same in M]

a. Gamjat e_{COP} singkeijat aa3.
today Sunday SFP
'Today is Sunday.'

b. [$_{\text{CP1}}$ Gamjat e_{COP} singkeijat aa3] [$_{\text{DeFocP}}$ **hai**]. (GRD)
today Sunday SFP COP
'Today is Sunday.'

GRD of copula obeys the restriction on null copula. Not all predicative copula can be null. According to Tang (2001a), a null copula is degraded when the second NP is indefinite with a numeral, instead of a bare noun. This is also true for GRD, as shown in (93).

(93) Prohibition of empty copula in predicative uses followed by numerals [C, same in M]

a. Aaming **??(hai)** jat-go baakcizai aa3. (predication with numeral)
Ming COP one-CL idiot SFP
'Ming is an idiot.'

b. [$_{\text{CP1}}$ Aaming **??(hai)** jat-go baakcizai aa3] [$_{\text{DeFocP}}$ **hai**]. (??GRD/OKDC)
Ming COP one-CL idiot SFP COP
'Ming is an idiot.'

Moreover, Tang (2001a) observes that null copulas are always predicative. The copula must be overt when it is specificational or equative (see Partee 1998 for classification). The prediction is that GRD (but not DC) should be banned in such sentences, which is borne out:

(94) Prohibition of empty copula in specificational uses [C, same in M]

a. Go hungsau ***(hai)** keoi aa3. (specificational)
3SG murderer COP 3SG SFP
'The murderer is him/her.'

b. [$_{CP1}$ Go hungsau ***(hai)** keoi aa3] [$_{DeFocP}$ **hai**]. (*GRD/^{OK}DC)
3SG murderer COP 3SG SFP COP
'The murderer is him/her.'

(95) Prohibition of copula GRD in equative uses [C, same in M]

a. Keoi ***(hai)** Aaming aa3. (equative)
3SG COP Ming SFP
'He is Ming.'

b. [$_{CP1}$ Keoi ***(hai)** Aaming aa3] [$_{DeFocP}$ **hai**]. (*GRD/^{OK}DC)
3SG COP Ming SFP COP
'He is Ming.'

Non-copular verbs may also be empty in Chinese (Tang 1999, 2001b). Unlike English gapping, Chinese empty verbs do not require a linguistic antecedent, as illustrated in (96a). The interpretation depends on the context: if (96a) is uttered outside a supermarket, the verb could be understood as 'bought'. I suggest that verb GRD as in (96b) has the same empty verb in CP1, whose interpretation is made explicit by the verb in DeFocP. Note that the object is focalized, which I will address below.

(96) Non-copular empty verbs [M, same in C]

a. Zhangsan e_V san-ge pingguo, Lisi e_V si-ge juzi.
Zhangsan three-CL apple Lisi four-CL orange
'Zhangsan (bought, ate, etc.) three apples, and Lisi four oranges.' (Tang 2001b:205)

b. [$_{CP1}$ Zhangsan e_V SAN-ge pingguo ma] [$_{DeFocP}$ {**yao**/ **you**/ **mai-le**...}]? (GRD)
Zhangsan three-CL apple SFP want have buy-PFV
'Does/did Zhangsan {want/ have/ buy} *three* apples?'

This analysis predicts that verb GRD should share the same restrictions as with empty verbs. This explains the observation by T. T.-M. Lee (2017, p.63) that verb GRD is highly constrained. Two major constraints observed by Tang (1999) are summarized below:[36]

(97) A (partial) generalization on empty verbs from Tang (1999)

a. Empty verbs must be followed by exactly one post-verbal element.

b. The post-verbal element must be focalized.

Consider (97a) first. When empty verbs are not followed by any post-verbal elements, the sentence is ungrammatical. The same requirement holds of the main chunk of verb GRD:[37]

36. Tang (2001b) discusses two other constraints: (i) empty verb sentences should be episodic, and (ii) the post-verbal element should not be existential/indefinite. These constraints also hold of verb GRD. Note that the numeral expressions in (96), as Tang argues, differ from individual-denoting indefinite expressions in denoting a quantity (i.e., NumP rather than DP in Li 1998's analysis).

37. DC is also not possible here, but due to an independent constraint that prohibits copying when it does not cross an element other than the SFP (see fn. 7 and T. T.-M. Lee 2021).

(98) Prohibition of empty verbs without post-verbal elements [M, same in C]

a. [Context: You and Zhangsan both got an F and cried.]
Wo e_V *(san-ge xiaoshi), Zhangsan e_V *(si-ge xiaoshi).
1SG three-CL hour Zhangsan four-CL hour
'I cried for three hours, and Zhangsan for four hours.'
(NOT: 'I cried, Zhangsan as well', even if *ye* 'also' is added after *Zhangsan*)

b. [$_{CP1}$ Zhangsan e_V *(SAN-ge xiaoshi) ma] [$_{DeFocP}$ **ku-le**]? (GRD)
1SG three-CL hour SFP cry-PFV
'Did Zhangsan cry for *three hours*?'

When empty verbs are followed by two post-verbal elements, the sentence is also ungrammatical, such as with the double object construction in (99a). GRD behaves alike as in (99b), a fact also noted by T. T.-M. Lee (2021, p.124) for Cantonese. The current account reduces the ungrammaticality of (99b) to that of (99a).

(99) Prohibition of empty verbs with two post-verbal elements [M, same in C]

a. *Zhangsan e_V [san-ben shu] [gei Lisi], wo e_V [si-ben shu] [gei Lisi].
Zhangsan three-CL book to Lisi 1SG four-CL book to Lisi
Int.: 'ZS (gave) three books to Lisi and I (gave) four books to Lisi.'

b. *[$_{CP1}$ Zhangsan e_V [SAN-ben shu] [gei Lisi] ma] [$_{DeFocP}$ **song-le**]?
Zhangsan three-CL book to Lisi SFP give-PFV
Int.: 'Did Zhangsan gave *three* books to Lisi?'

Now consider the focus requirement in (97b). In all the licit cases of empty verbs above, the objects receive contrastive focus. Tang (1999) proposes that empty verbs are derived by focalization of the object which escapes the VP, followed by VP deletion (when V-to-*v* movement does not apply).[38] If verb GRD always involves empty verbs, we expect that the object in verb GRD is always focused, but not necessarily in DC where the verb in CP1 is pronounced. This is indeed the case: T. T.-M. Lee (2021) observes that only verb GRD, but not DC, requires contrastive focus on the objects. Due to the limited space, I do not illustrate the contrast here and instead refer readers to his work (pp.123-125).

Summing up, empty categories in CP1 not only derive a number of subcases of GRD, but also correctly predict when GRD is illicit. A summary is given in Table 1.

5.3 Forward deletion

Before ending this section, I would like to discuss another source of silence that results in GRD. Recall that the main chunk does not allow backward deletion that depends on the RD chunk. Nevertheless,

38. The prediction does not depend on this particular analysis of empty verbs, though. What matters here is the generalization in (97b).

Empty categories	Scenarios		e OK?	GRD OK?
Subject *pro*	*Refer to:*	Referential nominals	✔	✔
		Quantifiers	✘	✘
Object e	*Being:*	Subcategorized & Cased	✔	✔
		Not subcategorized/Cased	✘	✘
Copular verb e	*Being:*	Predicative (NP2=bare N)	✔	✔
		Specificational/equative	✘	✘
Other verb e	*Followed by:*	1 (focused) post-verbal element	✔	✔
		0/2 post-verbal elements	✘	✘

Table 1: The range of licit and illicit GRD regulated by empty categories

there could be *forward* deletion licensed by *preceding* sentences. To illustrate, consider cases like (100-A) where the main chunk consists of only a nominal. Surprisingly, the RD chunk here allows negation (as also reported in Cheung 1997:113). Positing empty categories is insufficient here (e.g., [$_{\text{CP1}}$ *pro* e_{verb} US]), as (100) should then be banned due to polarity reversal.

(100) Q. Siuming **m**-wui heoi bindou? [C, same in M]
Ming not-will go where
'Where will Ming not go?'
A. Meigwok lo1 Siuming **m**-wui heoi.
US SFP Ming not-will go
'Ming will not go to the US.'

I suggest that (100-A) involves forward deletion licensed by the preceding question in (100-Q), which contains a negation. Hence, there is no polarity reversal between the main chunk and RD chunk. Notice that these cases are often unnatural unless in a question/answer pair, an observation that dates back to Lu (1980, p.56) as well as Cheung (2009a, p.200, fn.4). Notably, the nominal itself may be a fragment answer:

(101) Meigwok lo1. Answer to (100-Q) [C]
US SFP
'The US.'

Following Wei (2016), fragment answers to *wh*-questions in Chinese are derived by focus movement (to SpecFocP) followed by TP ellipsis. Applying to GRD like (100), the nominal in the main chunk moves up, leaving an elided clausal structure, as analyzed in (102):[39]

39. Fragment answers not only occur in question/answer pairs, but also in contexts of correction (Wei 2016). RD with nominal chunks can be used in similar contexts. (100-A), for example, may also be used for correcting some previous assertion of 'Ming will not go to Germany'.

(102) A biclausal analysis of RD with nominal main chunks

[:P [CP1 [FocP Meigwok ~~[TP Aaming m-wui heoi _]~~] lo1] : [DeFocP Aaming m-wui heoi [CP2 ...]]]

This analysis also accounts for some reported counter-examples to Cheung (2009a)'s Spine Constraint for GRD. Descriptively, the constraint says that only elements on the clausal spine can appear in main chunks (e.g., TP, VP, lowest Obj). In other words, left-branch elements like subjects, adjuncts, or higher objects cannot be there alone. Yet, such cases are attested, like (103) from Law (2003), with a direct object in a dative construction.

(103) Loeng-gin saam lo4 ngo zinghai sung-zo _ bei keoi. [C]
two-CL clothes SFP 1SG only give-PFV to 3SG
'I only gave two clothes to him/her.' (Law 2003:255; judgment from p.260)

Law also reports other cases like the first objects in serial verb constructions, PP adjuncts, and subjects. Since all these elements can be fragment answers, such Spine-Constraint-violating cases can be explained by the analysis in (102).

6 Conclusion

To conclude this paper, I have provided novel arguments that GRD, gapped right dislocation, and DC, dislocation copying, both have a biclausal structure in Cantonese and Mandarin. Incorporating insights from Cheung (2015) and Ott and de Vries (2016), I proposed a uniform biclausal approach to RD where the two chunks are asymmetrically coordinated to form **:**P, and the RD chunks undergo movement with deletion of the remnant clausal structure. The difference between GRD and DC can be explained by the use of empty categories in the main chunks. This connection between GRD and empty categories has been largely underappreciated in previous studies of Chinese RD. I demonstrated that empty categories correctly derive a range of possible variants of GRD. The proposal not only is empirically more adequate than a monoclausal approach to Chinese RD, but also resonates with the biclausal approach to RD in other languages (Germanic languages: Ott and de Vries 2016; Japanese: Tanaka 2001; Korean: Park and Kim 2009; Mongolian: T. T.-M. Lee 2023; Romance languages: Fernández-Sánchez 2017). I hope that the inclusion of Chinese RD to this picture illustrates deeper underlying universals and the nature of cross-linguistic variation in this domain.

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