An ellipsis approach to Contrastive Left-dislocation*

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Abstract

This paper proposes a novel analysis of Contrastive Left-dislocation (CLD), according to which the left-dislocated XP is a remnant of clausal ellipsis. This analysis makes sense of the otherwise paradoxical fact that the dislocated XP shows connectivity into the clause it precedes, while other properties betray its clause-external status. This paradox is resolved by analysing CLD as a juxtaposition of two parallel clauses, the first of which is reduced by IP-ellipsis at PF. Akin to recent treatments of sluicing, fragment answers, split questions and other phenomena, the analysis reduces CLD to an interplay of $\overline{\text{A}}$-movement and ellipsis, thereby removing constructional residue from the theory of UG.

Keywords: dislocation, movement, ellipsis, fragments, connectivity

*[Acknowledgments go here.]

1 Introduction

In this paper I propose a novel analysis of Contrastive Left-dislocation (CLD), a construction in which a left-peripheral XP precedes a complete clause containing a resuming element:

(1) Den Peter, den habe ich gestern gesehen.
the Peter him have I yesterday seen
'I saw Peter yesterday.' (GE)

For convenience I will henceforth refer to the 'dislocated' XP (*den Peter* in (1)) as the *dXP*, to the resumptive element (*den* in (1)) as the *anchor*, and—for reasons that will become clear presently—to the clause to which the *d*XP is left-attached as the *core clause*.

According to the novel approach I will defend, the *d*XP is a remnant of clausal ellipsis. To illustrate, my claim is that (1) derives from the underlying biclausal structure shown in (2):[1]

(2) $[_{CP_1}$ [den Peter]$_i$ habe ich gestern t_i gesehen] $[_{CP_2}$ den$_k$ habe ich gestern t_k gesehen]

In the mapping to phonetic form, CP_1 is reduced by ellipsis of the complement of the fronted XP, yielding (3), corresponding to the surface form in (1):

(3) $[_{CP_1}$ [den Peter]$_i$ ~~habe ich gestern t_i gesehen~~] $[_{CP_2}$ den$_k$ habe ich gestern t_k gesehen]

The juxtaposed CP_1 and CP_2 are parallel, up to the difference between the *d*XP and the anchor; it is this parallelism that licenses ellipsis in CP_1.[2] As shown above, the dislocate has $\overline{\text{A}}$-moved to the edge of CP_1, thereby enabling constituent deletion of the remainder of the clause. This type of clausal ellipsis, in the wake of Merchant 2001 commonly implemented as PF-deletion of IP/TP, has been argued to figure in a range of elliptical constructions, such as sluicing, fragment answers, and split questions:[3]

[1] Throughout, I will use trace notation for convenience; no opposition to the Copy Theory (a corollary of the reduction of the transformational component to Merge) is intended.

[2] In closely related work (Ott 2011b, in progress), I show that right-dislocation constructions can be analyzed in a directly parallel way, with ellipsis in CP_2; see section 6 below for some remarks.

[3] I argue in Ott 2011a that 'IP-ellipsis' is a misnomer, and that what undergoes deletion in all these cases is in fact the complement of the fronted operator. This captures Merchant's (2001) *Sluicing–COMP generalization*, according to which no non-operator material can surface in CP when IP is elided. Since space precludes a thorough discussion of this alternative implementation here, I will stick to traditional terminology and use

(4) *Sluicing* (Lasnik 2001; Merchant 2001; van Craenenbroeck 2010b)

a. John bought something, but I don't know what.

b. … but I don't know [$_{CP}$ what$_i$ [$_{IP}$ ~~John bought t_i~~]]

(5) *Fragment answers* (Merchant 2004a; Temmerman 2011)

a. A: Wie dacht Carl dat de wedstrijd zou winen? – B: Kim.
who thought Carl that the contest would win Kim
A: 'Who did Carl think would win the contest?' – B: 'Kim.'

b. [$_{CP}$ Kim$_i$ [$_{IP}$ ~~dacht Carl dat t_i de wedstrijd zou winen~~]] (DU)

(6) *Split questions* (Arregi 2010; Ott 2011b, in progress)

a. Qué árbol plant'o Juan, un roble?
what three planted Juan an oak
'What tree did Juan plant, an oak?'

b. [$_{CP}$ [qué árbol]$_i$ plant'o Juan t_i] [$_{CP}$ [un roble]$_k$ [$_{IP}$ ~~plant'o Juan t_k~~]] (Spanish)

If my proposal is on the right track, CLD is assimilated to this class of elliptical constructions. See also van Craenenbroeck and Lipták 2006, Holmberg 2011, and Kluck 2011, among others, for analyses employing IP-ellipsis.

Existing approaches to CLD are divided as to whether the *d*XP reaches its surface position by movement or is base-generated there, but analyses of either ilk suffer from grave empirical and conceptual defects. As I intend to show, the movement-and-ellipsis alternative avoids these problems and derives all core properties of CLD in a principled fashion, relying exclusively on the independently motivated operations of $\overline{\text{A}}$-movement and IP-ellipsis. In this way, the analysis eliminates a significant amount of constructional residue from the theory of UG/I-language.

The paper is organized as follows. In section 2, I outline the central empirical properties of CLD and the theoretical challenge emanating from them. I will then go on—in section 3—to outline the ellipsis-based alternative approach. Section 4 shows how this account correctly predicts connectivity of the *d*XP into the core clause, despite its otherwise clause-external character. Various further predictions of the approach are shown to be borne out in section 5. Section 6 concludes.

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the term IP-ellipsis, ignoring the problem of finite verbs in matrix sluicing (which I will simply represent as being in IP).

2 Core properties of CLD

In this section, I will summarize the basic empirical properties of CLD. The presentation will lead to the apparent paradox that the *d*XP is clause-external *and* clause-internal at the same time. This is the main riddle to be solved by the analysis proposed in the following section.

The type of left-dislocation discussed in this paper can be found in all non-English Germanic languages. The term *Contrastive Left-dislocation* was introduced by Thráinsson (1979) to distinguish it from English-type left-dislocation, which differs in crucial respects from CLD.[4] In this paper, I will focus exclusively on CLD, setting aside other types of left-dislocation. Most examples in this paper will be drawn from German, however the central syntactic properties of CLD surveyed in what follows do not seem to vary significantly across the (non-English) Germanic languages. Note that since CLD is generally a root phenomenon,[5] only main clauses will play a role in what follows.

Turning now to the distinctive properties of CLD, let us first consider the *d*XP. In terms of pragmatics/information structure, the *d*XP is typically a contrastive topic, marked by a characteristic rising accent in German; *d*XP and core clause are generally in an asymmetric *aboutness* relation.[6] The *d*XP can be prosodically integrated into the core clause, but may

[4] English left-dislocation as in *John, I like him* appears to pattern with what has been labeled *Hanging-topic Left-dislocation* (HTLD) in languages like Dutch and German (cf. van Riemsdijk 1997; Frey 2004b):

(i) Der Peter, ich kenne ihn nicht.
the.NOM *Peter I know him*.ACC *not*
'As for Peter, I don't know him.' (GE)

Hanging topics are restricted to nominative DPs and do not show connectivity into the core clause (van Riemsdijk 1997; Frey 2004b; Grewendorf 2008). I will not attempt provide an analysis of HTLD in this paper; the focus will be exclusively on CLD. In fact, it should be noted that HTLD constructions have a highly artificial flavor to them and rarely if ever occur in normal spoken speech; the same qualification is noted for Dutch by Zwart (2011).

[5] Marginal exceptions to this generalizations seem to exist. Embedded CLD in dialectal Dutch is discussed by Temmerman (2008); Thráinsson (2007) mentions the following example from Icelandic (his wording suggest that such cases are not very natural):

(i) Jón segir að Þessum hring, honum hafi Ólafur lofað Maríu.
Jon says that this ring, it has Olaf promised Mari.
'Jon says that Olaf promised this ring to Mari.' (IC)

These examples seem to involve a kind of 'CP recursion' (Iatridou and Kroch 1992); alternatively, they may not involve any true embedding at all, as in pseudo-subordinate contexts like embedded V2. I will set the issue of embedded CLD aside here, focusing on the core case.

[6] On these information-structural aspects of CLD, set aside here, see Altmann 1981; Frey 2004b; Alexi-

alternatively be separated from it by an intonational break (notated as # below), or even by interjections (cf. Greenberg 1984):

(7) Den Peter {# / ja / genau / verdammt} den habe ich gestern gesehen.
the Peter yes exactly damn him have I yesterday seen
'Peter, {#/yeah/exactly/dammit}, I saw him yesterday.' (GE)

This suggests that the *d*XP is bears a rather lose structural relation (if any) to the core clause. This impression is reinforced more generally by the fact that the *d*XP is always optional (omissible), preceding a syntactically complete V2 clause, yielding the superficial V3 order (in apparent violation of an otherwise robust V2 pattern). In terms of narrow-semantic interpretation, too, it is essentially vacuous, having no truth-conditional effect on compositional interpretation.

As noted in Zaenen 1997 for Dutch and Icelandic, CLD is virtually unrestricted with respect to the category of the *d*XP:

(8) a. Peysuna sína, hana finnur Ólafur hvergi.
sweater self's it finds Olaf nowhere
'Olaf can't find his sweater anywhere.' (IC; Zaenen 1985)

b. Gisteren, toen heeft Jan dat boek snel terug gebracht.
yesterday then has John that book quickly back brought
'John quickly returned the book yesterday.' (DU; Zwart 1998)

c. Gemt den særligt godt det tror jeg nu ikke de har.
hidden it very well that think I now not they have
'I don't think they have hidden it very well.' (DA; Mikkelsen 2011)

d. Dass Peter seine Freundin geküsst hat, das glaube ich nicht.
that Peter his girlfriend kissed has that believe I not
'I don't believe that Peter kissed his girlfriend.' (GE)

e. Schön, das ist sie wirklich nicht.
beautiful that is she really not
'She really isn't beautiful.' (GE)

As shown by the above examples, CLD is not restricted to referential *d*XPs (*pace* Grewendorf 2008). There are, however, cases in which the *d*XP cannot be properly linked to the anchor; I will return to these in section 3. My working assumption here will be that the category of the *d*XP is not restricted syntactically.

Turning now to the anchor within the core clause, it is typically realized as a strong

adou 2006; Shaer et al. 2009. On contrastive topics more generally, see, a.o., Büring 1997; Wagner 2011.

(*d*-)pronoun (which I gloss as a personal pronoun for the sake of simplicity).[7,8] Leftward movement of this anchor out of an island results in deviance:

(9) *Den Peter, den$_i$ kenne ich die Frau [die t_i zuletzt gesehen hat]
the Peter that know I the woman that last seen has
int.: 'I know the woman who was the last to Peter.' (GE)

We will return to the question of island-sensitivity in section 5.4 below.

Customary claims to the contrary (e.g., in Altmann 1981 and Alexiadou 2006) notwithstanding, leftward movement of the anchor is in fact not obligatory (although typically the more natural option).[9] No decrease in acceptability can be detected particularly in cases

[7]Icelandic seems to productively employ personal pronouns as anchors in CLD (Zaenen 1997; Thráinsson 2007), a crosslinguistic difference I abstract away from in this paper. In German/Dutch, personal pronouns as anchors in CLD are highly marked but not impossible, a fact I take to reflect a pragmatic (essentially, stylistic) preference for *d*-pronouns when elements from preceding discourse are resumed. The same preference can be found across utterances:

(i) A: Hast du Peter gestern noch gesehen?
have you Peter yesterday still seen
'Did you get to see Peter yesterday?' (GE)
B: Ja, ich hab' {den / %ihn} gestern noch gesehen.
yes I have d-him him yesterday still seen
'Yes, I did get to see him yesterday.'

Use of a personal pronoun in constructions like B's response is quite stilted and rarely occurs in spoken/colloquial German.

[8]Alternatively, an epithet can be used to anchor the *d*XP:

(i) a. Den Peter, den Idioten habe ich gestern noch gesehen.
the Peter that idiot have I yesterday still seen
'I saw that idiot Peter yesterday.' (GE)
b. Maria, dat wijf vermoord ik nog eens.
Maria that bitch kill I one day
'I'm going to kill that bitch Mary some day.'
(DU; van Riemsdijk and Zwarts 1997)
c. Ólaf, þetta fifl elskar hún ekki.
Olaf that idiot loves she not
'She doesn't love that idiot Olaf.' (IC; Zaenen 1997)

I will only use examples with pronominal anchors in the remainder of this paper, since CLD with an epithetic anchor does not seem to behave differently in any relevant respect; thus, nothing hinges on the choice of the anchor (pronoun or epithet) for the purposes of my analysis. Note, however, that epithetic anchors are lethal to Grohmann's (2003) 'copy spell-out' approach to CLD, since the lexical content of the anchor cannot be deduced from formal features of the *d*XP; hence, such cases could only be handled by assuming massive violations of Inclusiveness.

[9] This is also noted (for German) by Eisenberg (2006: 398), Frey (2004b) and Grewendorf (2008). The last two authors show that even with the *d*-pronoun *in situ* the *d*XP exhibits connectivity, showing that we are

in which some other operator (such as a *wh*-phrase or a null polar-interrogative operator) occupies the edge of CP, precluding fronting of the anchor.

(10) a. ?Die Kabarettisten, ich habe die schon immer geschätzt.
the cabaret artists I have them already always esteemed
'I've always held the cabaret artists in high esteem.' (GE; Grewendorf 2008)

b. Den Käse, (wann) hat die Maus den gegessen?
the cheese when has the mouse that eaten
'When did the mouse eat the cheese?' (GE; Haider 2010)

(11) a. ?Die man, ik ken die niet.
that man I know him not
'I don't know that man.'

b. Jan, waar heb je die gezien?
Jan where have you him seen
'Where did you see Jan?' (DU; Vat 1981)

(12) a. ?Sina böcker, varje student hatar dem.
his books every student hates them
'Every student hates his books.'

b. Chomskys böcker, vem hatar dem?
Chomsky's books who hates them
'Who hates Chomsky's books?' (SW; Eric Lander, p.c.)

In situ occurrence of the anchor is at odds with analyses of CLD that crucially rely on this movement, such as those developed in Wiltschko 1997 and Grohmann 2003 (which moreover suffer from most of the problems noted below).

The facts reviewed so far strongly suggest that the *d*XP is generated externally to the core clause: it precedes a syntactically complete (gapless) V2 main clause, including its left periphery targeted by $\overline{\text{A}}$-movements. It thus appears that the *d*XP "is not part of the same sentential domain as the sentence it precedes" (Zaenen 1997). However, despite these indications of the external, 'add-on' nature of the *d*XP, connectivity effects ostensibly

dealing with genuine instances of CLD (rather than hanging topics; see footnote 4):

(i) a. ?Seinem$_i$ Doktorvater, jeder Linguist$_i$ wird dem zum Glück Geld ausleihen.
his.DAT *supervisor every linguist will him luckily money lend*
'Every linguist will lend money to his supervisor.' (GE)

b. *Den neuen Artikel von Peter$_i$, er$_i$ will den anscheinend in *LI* veröffentlichen.
the new article by Peter he wants it apparently in LI *publish*
*'Apparently he wants to publish Peter's new article in *LI*.'

Such reconstruction effects will be further discussed in section 4.4 below.

betray a clause-*internal* base position:

(13) Seinen$_i$ besten Freund, den sollte jeder$_i$ gut behandeln.
*his.*ACC *best*ACC *friend* *him*ACC *should everyone well treat*
'Everyone should treat his best friend well.' (GE; Grohmann 2003)

(13) illustrates two kinds of connectivity found in CLD (to be reviewed systematically in section 4 below): the *d*XP agrees in case with its anchor, and the contained pronoun is bound by an element in the core clause (here, the quantified subject *jeder*). If, as standardly assumed, such connectivity effects have a syntactic basis, then some sort of syntactic relation between *d*XP and core clause must obtain after all.

3 Movement and ellipsis in CLD

The simultaneous occurrence of clause-external *and* clause-internal properties of the *d*XP has spawned a wealth of proposals variously locating CLD on either side of the *base-generation vs. movement* dichotomy (see already the discussion in van Riemsdijk and Zwarts 1997, first circulated in 1974; and van Riemsdijk 1997 and Alexiadou 2006 for overviews of the existing analyses).

Proponents of a base-generation approach to CLD, such as Frey (2004b), have argued that the *d*XP is base-generated as a left-peripheral adjunct to the core clause (see (14)), internally to which the anchor may or may not undergo movement. To account for connectivity, this analysis is then supplemented with a specially devised chain-formation mechanism, reproduced in (15):

(14) $[_{\text{CP}}\ d\text{XP}_i\ [_{\text{CP}}\ (\ldots)\ \text{anchor}_i\ (\ldots)\ ]]$

(15) A CHAIN $\langle \alpha_1, \ldots, \alpha_n \rangle$ is a sequence of nodes sharing the same θ-role such that for any $i, 1 \leq i < n$, α_i c-commands and is coindexed with α_{i+1}.

The effect of (15) is to stipulate a dependency with movement properties (a 'CHAIN') between *d*XP and anchor, crucially in the absence of actual movement; similar mechanisms have been proposed by Zaenen (1997) and Wiltschko (1997), among others.[10]

[10] Analyses of CLD in terms of (14) and (15) are highly reminiscent of non-structural analyses of sluicing, such as that of Chung et al. (1995), which resort to similar stipulations to account for movement properties of the sluice.

It is evident that this kind of approach, whatever its descriptive adequacy, has little insight to offer: identity in θ-role between *d*XP and anchor and the resulting exceptional CHAIN formation is simply stipulated—(15) is the problem stated in different terms, rather than a solution. Note also that the prerequisite identity in θ-roles flatly violates the Theta Criterion (Chomsky 1981). Even when these quarrels are set aside, however, the approach has the uncomfortable consequence of positing an exceptional V3 structure in CLD, which however must be blocked in other contexts in order not to weaken the V2 requirement.

This last problem is inherited by monoclausal movement analyses of CLD, first proposed in Vat 1981. In Grewendorf's (2008) updated implementation, *d*XP and anchor are originally merged as a 'big DP,' which gets split up in the course of the derivation: the big DP raises to the left periphery, followed by subsequent very local $\overline{\text{A}}$-movement of the *d*XP to an even higher left-peripheral position. Grewendorf is thus forced to assume a movement-derived V3 structure arising just in case of CLD, impossible in other contexts (e.g., combinations of topicalization and *wh*-movement). This is clearly an unwelcome consequence, and one of the main virtues of the novel approach will be its compliance with the strict V2 pattern of the relevant languages.[11]

The movement theory also runs into trouble in cases where there is a mismatch between the *d*XP and the clause-internal gap, as in the following example:[12]

(16) Naar zijn$_i$ promotie, daar$_k$ kijkt iedere taalkundige$_i$ naar t_k uit.
to his defense there looks every linguist to out
'Every linguist looks forward to his defense.'

(Wambeek DU; van Craenenbroeck 2004)

Here, the *d*XP is a PP, whereas the trace in the core clause is of category NP, the preposition having been stranded by movement of the R-pronoun *daar*. As van Craenenbroeck concludes, the *d*XP cannot originate in the gap position.

The conclusion so far must be that no extant analysis of CLD has managed to cut the Gordian Knot: both movement and base-generation approaches fail—as a matter of principle—to reconcile clause-internal and clause-external properties of the *d*XP. Worse yet, given the highly idiosyncratic mechanisms stipulated by these analyses, CLD currently

[11] As far as I am aware, the only analysis of CLD that evades the V3 problem is that proposed in de Vries 2009, 2010; according to his analysis, the anchor is a parenthetical element whose structural relation to the dislocate is mediated by a functional head. In fact, however, the anchor in CLD bears little resemblance to truly parenthetical/appositive constituents; in particular, it is not followed by an intonational break. It is also falsely predicted that the putative constituent composed of dislocate and anchor can surface *in situ*.

[12] I thank Marika Lekakou for reminding me of these examples.

falls within the domain of *constructional residue*, the class of unexplained phenomena that must be reduced to basic operations if the theory of UG is to attain explanatory adequacy (Chomsky 1981, 1986b, 1995).

Let us now turn to the ellipsis approach. Example (1) and its underlying structure is repeated below; (18) schematically represents the analysis of CLD proposed here:

(17) a. Den Peter, den habe ich gestern gesehen.
the Peter him have I yesterday seen
'I saw Peter yesterday.' (GE)

b. [$_{CP_1}$ den Peter$_i$ ~~habe ich gestern t_i gesehen~~] [$_{CP_2}$ den$_i$ habe ich gestern gesehen]

(18) [$_{CP_1}$ *d*XP$_i$ ~~[$_{IP}$ … t_i …]~~] [$_{CP_2}$ … anchor …]

Backward IP-ellipsis of this type is independently attested, compare backward sluicing:

(19) a. I don't know what, but John will have something. (Coppock 2001)

b. [$_{CP}$ what$_i$ [$_{IP}$ ~~John will have t_i~~]]

The most conspicuous advantage of this analysis is that it evades the V3 problem: each of the two CPs is a standard V2 clause. V3 order arises only superficially, as a result of deletion in CP_1 and the resulting linear sequence *d*XP > CP_2. Therefore, the analysis does not imply any weakening of the structural V2 requirement.

Another main advantage is that the analysis can easily accomodate mismatches between *d*XP and the gap position in the core clause. The underlying structure of (16) is as follows:

(20) [$_{CP_1}$ [$_{PP}$ naar zijn promotie]$_i$ ~~kijkt iedere taalkundige t_i uit~~]
[$_{CP_2}$ daar$_k$ kijkt iedere taalkundige$_i$ naar t_k uit] (= (16))

Thus, no real antecedent–trace mismatch arises, since the *d*XP antecedes its (PP-)trace in CP_1, whereas the R-pronoun has stranded its preposition in CP_2. We need not conclude—as van Craenenbroeck (2004) does—that the *d*XP is base-generated as an adjunct to the core clause (a move that introduces the V3 problem and renders connectivity mysterious); it has moved, but internally to the parallel elliptical clause.

I will here assume that backward IP-ellipsis is licensed in the same way as its forward counterpart. We can adopt Merchant's (2001) implementation of ellipsis licensing in terms of a Focus Condition, in turn based on a properly defined notion of givenness:

(21) *e*-GIVEN*ness* (Merchant 2001)
An expression E counts as e-GIVEN iff E has a salient antecedent A and, modulo ∃-type shifting,

a. A entails F-clo(E), and
b. E entails F-clo(A).

(22) *Focus Condition on IP-ellipsis*
An IP α can be deleted only if α is e-GIVEN.

Needless to say, to adapt this approach to backward ellipsis it is necessary to construe the notion of 'antecedent' in (21) as including expressions that follow the ellipsis site in discourse. I take this move to be unproblematic, although space restrictions precludes a thorough discussion of this matter here.[13] In terms of the present analysis and simplifying somewhat, the Focus Condition predicts/requires the elided IP in CP_1 and the overt IP in CP_2 to express mutually entailing propositions. To illustrate, (24) cannot be the source of deletion in (23), as entailment from the elided IP to its antecedent fails:

(23) Den Peter, [$_{CP_2}$ den [$_{IP_A}$ habe ich *t* einen Idioten genannt]]
the Peter him have I an idiot called
'I called Peter an idiot.' (GE)

(24) [$_{CP_1}$ den Peter [$_{IP_E}$ habe ich *t* beleidigt]]
the Peter have I insulted

a. F-clo(IP_E): $\exists x$. I insulted *x*
b. F-clo(IP_A): $\exists x$. I called *x* an idiot
c. F-clo(IP_E) $\nrightarrow$ F-clo(IP_A)

The reader is refered to Merchant 2001 for further details of this conception of licensing.

What are the predictions of the ellipsis analysis concerning the interpretive relation between the *d*XP and its anchor? Since each is part of a separate clause,[14] the anaphoric link between the *d*XP and the anchor under this analysis is equivalent to parallel relations

[13] Jason Merchant (p.c.) suggests that the notion of antecedent can be maintained on a quite literal interpretation when e-GIVENness is construed as a pragmatic (rather than narrowly semantic) notion, applying to discourse trees as construed in Büring 2003. I will leave an implementation of this idea to future work (but see Ott 2011a for some pertinent remarks).

[14] I will remain agnostic here about the option of a structural connection between the two clauses, for instance by means of adjunction of one to the other. CLD being a root phenomenon, there seems to be little evidence that *d*XP and core clause ever form a single-rooted syntactic object. Nothing hinges on this detail, however, and I will set this issue aside here, leaving it to future work.

across sentences (cf. Zaenen 1997). Consider the non-eliptical counterpart of (17-a):

(25) Den Studenten$_i$ habe ich gesehen. Den$_i$ habe ich gesehen.
the student have I seen him have I seen
'I saw the student. I saw him.' (GE)

If the interpretive dependency between *d*XP and anchor is directly parallel in (17-a) and (25), this predicts categories that fail to serve as antecedents for pronouns to be excluded from CLD. Cases in point are QPs, nonspecific indefinites, and NPIs:

(26) a. *Ich habe [keinen Studenten]$_i$ gesehen. Den$_i$ habe ich gesehen.
I have no student seen him have I seen

b. *Ich habe [alle Studenten]$_i$ gesehen. Die$_i$ habe ich gesehen.
I have all students seen them have I seen

c. *Ich habe [irgendeinen Studenten]$_i$ gesehen. Den$_i$ habe ich gesehen.
I have some student seen him have I seen

d. *Ich habe hier noch nie [auch nur irgendeinen Studenten]$_i$ gesehen. Den$_i$
I have here yet never any student seen him
habe ich hier noch nie gesehen.
have I here yet never seen

According to the ellipsis approach the examples in (26) are non-elliptical versions of CLD (*modulo* leftward movement of the *d*XP, irrelevant here). As expected, the elliptical CLD cases are equally deviant:

(27) a. *Keinen Studenten, den habe ich gesehen.
no student him have I seen

b. *Alle Studenten, die habe ich gesehen.
all students them have I seen

c. *Irgendeinen Studenten, den habe ich gesehen.
some student him have I seen

d. *Auch nur irgendeinen Studenten, den hat Peter hier noch nie gesehen.
any student him has Peter here yet never seen

Given this correspondence, we need not assume that CLD is inherently constrained to exclude these categories; CLD of QPs, nonspecific indefinites, and NPIs is deviant simply because no suitable antecedent is provided for the anchor. In fact, we will see in section 5.3 below that such categories *can* appear as *d*XPs in CLD, just in case they are not resumed by the anchor in the core clause.

This logic carries over to *wh*-phrases and reflexives, both of which are unable to antecede pronouns and consequently make bad *d*XPs:[15]

(28) a. *Wen, den hat Peter gesehen?
who him has Peter seen
'Who did Peter see?' (GE)

b. *Zichzelf, die heeft hij nog nooit overgeslagen.
himself him has he yet never passed over
'He hasn't ever passed himself over.' (DU; van Riemsdijk and Zwarts 1997)

The present analysis thus has some significant initial plausibility. It circumvents the V3 problem (detrimental to both base-generation and monoclausal movement appraoches), solves the problem of apparent antecedent–trace mismatches in CLD, and correctly predicts the range of categories that can figure as *d*XPs (those that can be resumed by pronouns/epithets).

[15]Note that QPs, *wh*-phrases and anaphors can undergo $\overline{\text{A}}$-movement to the CP edge (*Vorfeld* movement) in monoclausal contexts, where no co-construal with some anchor plays a role:

(i) a. Keinen Studenten habe ich gesehen.
no student have I seen
'I didn't see any students.' (GE)

b. Zichzelf heeft hij nog nooit overgeslagen.
himself has he yet never passed over
'He hasn't ever passed himself over.' (DU)

By contrast, NPIs resist fronting in such contexts as well (a fact which Merchant 2004a takes to explain their unacceptability as fragment answers):

(ii) *Auch nur irgendeinen Studenten habe ich hier noch nie gesehen.
any student have I here yet never seen
intended: 'I've never seen any student here.' (GE)

Recall from the schema in (18) that on the present analysis, the *d*XP is assumed to be topicalized, enabling constituent deletion of IP. CLD of NPIs, then, is thus doubly ruled out on this approach: NPIs cannot serve as antecedents (as shown in (26-d)), and they resist topicalization movement.

Weak pronouns likewise resist topicalization and CLD:

(iii) *Ihn (den) habe ich gestern gesehen.
him.WEAK *d-him have I yesterday seen*
'I saw him yesterday.' (GE)

Given their inability to undergo topicalization, then, the present approach correctly predicts weak pronouns to not be possible *d*XPs, just like they cannot be clausal fragments in general. Note, however, that here, too, there is a second reason for why weak pronouns make bad *d*XPs: by definition, they are incompatible with the contrastive/emphatic import usually assigned to *d*XPs.

4 Connectivity

As noted above, the main theoretical challenge posed by CLD is to reconcile the externality of the *d*XP relative to the core clause with concurrent indications that the *d*XP is actually an integral part of the core clause. In this section, I will systematically discuss these indications and show how they follow from the ellipsis approach.

4.1 Case agreement and θ-marking

The obligatoriness of case agreement between *d*XP and anchor in CLD was first noted by Ross (1973); the following examples from German and Icelandic illustrate:

(29) a. Den Peter, den habe ich gesehen.
*the Peter.*ACC *him.*ACC *have I seen*
'I saw Peter yesterday.' (GE)

b. Dem Peter, dem habe ich gestern geholfen.
*the.*DAT *Peter him.*DAT *have I yesterday helped*
'I helped Peter yesterday.'

(30) a. Peysuna sína, hana finnur Ólafur hvergi.
*sweater.*ACC REFL *it.*ACC *finds Olaf nowhere*
'Olaf can't find his sweater anywhere.' (IC; Zaenen 1997)

b. Þessum hring, honum hefur Ólafur lofað Maríu.
*this.*DAT *ring it.*DAT *has Olaf promised Marí*
'Olaf promised this ring to Mari.'

Thus, despite the fact that the *d*XP does not seem to have moved from the interior of the core clause (for the reasons given above), it nevertheless behaves as if it had been case-marked by the core-clause predicate. Following Merchant (2001), I will refer to such correlations as *form-identity* effects.

Form-identity in case is a straightforward consequence of the parallel structure of CP_1 and CP_2, enforced by the Focus Condition (22): the *d*XP and the anchor are necessarily case-marked by the same predicate.

(31) $[_{CP_1}$ dem Peter$_i$ $[_{IP}$ ~~habe ich t_i geholfen~~]]
$[_{CP_2}$ dem$_k$ $[_{IP}$ habe ich t_k geholfen]] (= (29-b))

This explanation for case agreement is directly parallel to that proposed in Merchant 2001 for in sluicing, analyzed as in (32-b) (compare his *form-identity generalizaion I*):

(32) a. Peter hat jemandem geholfen, aber ich weiß nicht wem.
*Peter has someone.*DAT *helped but I know not who.*DAT
'Peter helped someone, but I don't know who.' (GE)

b. [$_{CP}$ wem$_i$ ~~Peter t_i geholfen hat~~]

By the same token, it follows that *d*XP and anchor bear the same θ-role (again, the same correlation is found in sluicing and fragment answers, and again the explanation is parallel). Recall that identity in θ-role was simply presupposed in (15), in violation of the Theta Criterion and as a prerequisite for exceptional CHAIN formation. No such θ-theoretic problem arises on the present approach. In sum, on the ellipsis approach nothing beyond the standard mechanisms of case and θ-role assignment is needed to account for case and thematic connectivity in CLD.

4.2 P-stranding

In his discussion of sluicing, Merchant (2001) establishes the following crosslinguistic generalization (his *form-identity generalization II*):

(33) A language *L* will allow preposition stranding under sluicing iff *L* allows preposition stranding under regular *wh*-movement.

This correlation is expected on an analysis of sluicing (like Merchant's) according to which the sluiced XP undergoes $\overline{\text{A}}$-movement prior to deletion of IP.[16] The following facts illustrate the difference between a non-P-stranding language like German and a P-stranding language like Norwegian:

(34) a. Sie hat mit jemandem gesprochen, aber ich weiß nicht *(mit) wem.
she has with someone spoken but I know not with who
'She talked to somebody, but I don't know who.' (GE)

b. Per har snakket med noen, men jeg vet ikke ($^{??}$med) hvem.
Per has talked with someone but I know not with who
'She talked to somebody, but I don't know who.' (NO)

[16] Several apparent counterexamples to (33) have been noted in the literature, but they do not seem to pose a credible threat to the validity of the generalization (see Rodrigues et al. 2009; van Craenenbroeck 2010a).

On a movement-*cum*-deletion analysis of sluicing, the difference follows from the (non-) availability of P-stranding:

(35) a. aber ich weiss nicht [$_{CP}$ [mit wem]$_i$ ~~sie t_i gesprochen hat~~] (= (34-a))
b. man jeg vet ikke [$_{CP}$ hvem$_i$ ~~Per hat snakked med t_i~~] (= (34-b))

By the same token, the analysis of CLD advanced here predicts the (im-)possibility of P-stranding in a given language to be reflected in these constructions, assuming that the *d*XP is $\overline{\text{A}}$-moved prior to deletion. This prediction is borne out: as the following facts show, a PP anchor in the core clause forces the presence of a preposition in the *d*XP in German but not in P-stranding languages like Norwegian, Swedish and Icelandic.[17]

(36) a. {*(Auf)} den Peter, auf den habe ich lange warten müssen.
for the Peter for him have I long wait must
'I had to wait for Peter for a long time.'
b. {*(Mit)} meiner Schwester, mit der habe ich mich oft gestritten.
with my sister with her have I REFL *often quarreled*
'I often quarreled with my sister.' (GE)

(37) a. (??Med) søstera mi, ho krangla jeg ofte med.
with sister my her quarreled I often with
'I often quarreled with my sister.' (NO)
b. (??Med) min syster, henne blev jag ofta osams med.
with my sister her became I often upset with
'I often got upset with my sister.' (Swedish)
c. (??Um) manninn sem hún b'yr með, hann talar María illa um.
about the man that she lives with him talks María badly about
'Maria says bad things about the man she lives with.' (IC)

The explanation of this difference is straightforward: Norwegian, Swedish and Icelandic permit Ps to be stranded in the elided IP contained in CP_1, as shown in (38-a). Such stranding is not an option in German (see (38-b)).

[17]The facts in Dutch are somewhat less clear-cut than they are in German, not surprisingly given the variability in judgments reported in Merchant 2001: 95 for P-stranding under sluicing in this language. I attribute this fact to interference from HTLD (see footnote 4): Dutch not providing any overt indications of case-marking on the *d*XP, surface strings are ambiguous between CLD and HTLD. In the German examples used in the text, I include elements (specifically, determiners) that morphologically express case in the *d*XP to control for this factor.

(38) a. [$_{CP_1}$ [manninn sem hún b'yr með]$_i$ ~~talar María illa um t_i~~]
[$_{CP_2}$ hann$_k$ talar María illa um t_k] (= (36-b))

b. [$_{CP_1}$ [mit meiner Schwester]$_i$ ~~habe ich mich oft t_i gestritten~~]
[$_{CP_2}$ [PP mit der]$_k$ habe ich mich oft t_k gestritten] (= (37-c))

4.3 Aux–V relations

I would like to briefly comment on a further type of connectivity effect in dislocation, highlighted by Mikkelsen (2011). It is well-known that, quite generally, auxiliaries control the form of the main verb they occur with. Mikkelsen illustrates this using the Danish counterpart to *have*, which requires a participial main verb:

(39) Jeg tror nu ikke de **har** {**gem-t** / *gemm-e / *gemm-er /
*I think now not they have.*PRES *hide*-PPC *hide*-INF *hide*-PRES
*gem-te} den særligt godt.
hide-PAST *it very well*
'I don't think they have hidden it very well.' (DA)

Mikkelsen observes that this Aux–V relation is preserved under both topicalization (40-a) and CLD (40-b) of VP:

(40) a. [$_{VP}$ {**Gem-t** / *Gemm-e / *Gemm-er / *Gem-te} den særligt godt]$_i$
hide-PPC *hide*-INF *hide*-PRES *hide*-PAST *it very well*
tror jeg nu ikke de **har** t_i
*think I now not they have.*PRES

b. [$_{VP}$ {**Gem-t** / *Gemm-e / *Gemm-er / *Gem-te} den særligt godt] det$_i$
hide-PPC *hide*-INF *hide*-PRES *hide*-PAST *it very well that*
tror jeg nu ikke de **har** t_i
*think I now not they have.*PRES

As indicated in the above representations, Mikkelsen assumes (in line with the base-generation approach to CLD) that VP itself has moved from its base position in the topicalization case, whereas this direct-movement option is not available in the CLD case (due to presence of the anchor). The conclusion Mikkelsen draws from these facts is that verbal inflection (as a function of the Aux–V relation) can be determined at a distance (rather than locally, as is standardly assumed[18]).

[18] See Chomsky 1957 for an early implementation, and Adger 2003 for a (rather clumsy) approach in terms of feature valuation.

If correct, Mikkelsen's (2011) conclusion would have damaging implications for the standard analysis of verbal morphology. Luckily, however, local determination of verbal morphology can be maintained on the present analysis, where a dislocated VP undergoes simple topicalization internally to CP_1:

(41) $[_{CP_1}$ [Gem-t den særligt godt]$_i$ ~~$[_{IP}$ tror jeg nu ikke de har $t_i]$~~]
$[_{CP_2}$ det$_k$ tror jeg nu ikke de har t_k] (= (40-b))

Therefore, verbal morphology can be computed equally locally in (40-a) and (40-b).

4.4 Reconstruction

Reconstruction of the *d*XP into the core clause for purposes of binding[19] has been amply documented in the literature on CLD (van Riemsdijk and Zwarts 1997; Vat 1981; Zaenen 1997; Grohmann 2003; Frey 2004b; Alexiadou 2006; Grewendorf 2008), so I will confine myself to a concise summary of the core facts.

The following examples show binding of a pronominal variable under reconstruction:

(42) a. Seinen$_i$ besten Freund, den sollte jeder$_i$ gut behandeln.
his best friend him should everyone well treat
'Everyone should treat his best friend well.' (GE; Grohmann 2003)

b. Zijn$_i$ eerste artikel, dat berokkent een linguïst$_i$ vaak schade.
his first paper that causes a linguist often harm
'A linguist's first article often harms him.' (DU; Vat 1981)

c. Sina$_i$ böcker, dem hatar varje student$_i$.
his books them hates every student
'Every (male) student hates his books.' (SW; Eric Lander, p.c.)

The following examples illustrate reconstruction for Conditions A and C:

(43) a. Mit sich im Reinen, das war Peter schon lange nicht mehr.
with himself in the pure that was Peter already long no more
'Peter hadn't been at peace with himself for a long time.'

b. Stoltan afhor öðrum$_i$, það tel ég þa$_i$ ekki vera.
proud of each other that believe I them not to be
'I don't think they're proud of each other.' (IC; Zaenen 1997)

[19] Recall from section 3 that QPs and nonspecific indefinites are excluded from CLD due to their failure to antecede the anchor. Therefore, these categories cannot be used to diagnose scope reconstruction in CLD.

(44) a. *Der Tatsache dass Alex$_i$ arm ist, der misst er$_i$ keine Bedeutung bei.
the fact that Alex poor is that attaches he no importance to
*‘He$_i$ doesn’t attach any importance to the fact that Alex$_i$ is poor.’ (GE)

b. *Anneke$_i$ d’r broer, die geloof ik dat ze$_i$ wel aardig vindt.
Anneke’s brother him believe I that she sort of nice finds
*‘I doubt that she$_i$’s fond of Anneke$_i$’s brother.’ (DU; Vat 1981)

Reconstruction persists even when material intervenes between *d*XP and core clause:

(45) a. Seine$_i$ Eltern, tja, die mag wohl kein Teenager$_i$.
his parents well them likes PRT *no teenager*
‘I guess no teenager likes his/her parents.’ (GE)

b. Daunen boek, toch wel, daunen ei Marie wel gelezen.
that book PRT PRT *that has Mary* PRT *read*
‘Yes, Mary read that book.’ (Wambeek DU; van Craenenbroeck 2010b)

c. Zijn$_i$ moeder, goh, die haat iedere puber$_i$.
his mother God her hates every teenager
‘God, every teenager hates his mother.’ (DU; Marlies Kluck, p.c.)

What we find, then, is that the *d*XP (seemingly) reconstructs into the core clause, despite the fact that the structural relation between *d*XP and core clause appears to be at most very indirect (as concluded in section 2). On the present approach, the paradox doesn’t arise: reconstruction, just like form identity, is a consequence of the biclausal analysis and the parallelism required by the Focus Condition. To license ellipsis, CP_1 and CP_2 must be parallel, and the *d*XP $\overline{A}$-moves to the edge of CP_1. Hence, connectivity for binding arises as a result of ordinary reconstruction of the *d*XP internally to the elliptical CP_1:[20]

(46) a. $[_{CP_1}$ [seinen$_i$ besten Freund]$_k$ $[_{IP}$ ~~sollte jeder$_i$ t_k gut behandeln~~]] (= (42-a))

b. *$[_{CP_1}$ [Anneke$_i$ d’r broer]$_k$ $[_{IP}$ ~~beloof ik dat ze$_i$ t_k wel aardig vindt~~]] (= (44-b))

As expected, the resulting readings/binding relations directly corresponds to those in the non-elliptical versions of these clauses.

[20] See den Dikken et al. 2000 for a similar reasoning concerning connectivity effects in (certain types of) pseudoclefts.

4.5 Interim summary: *d*XPs as clausal fragments

I have argued that a *d*XP in CLD is derived in the same way as a fragment answer (Merchant 2004a; Temmerman 2011), the question tag in a split question (Arregi 2010), and the *wh*-remnant of sluicing (Ross 1969; Lasnik 2001; Merchant 2001)—*viz.*, by movement to the clausal edge and subsequent deletion of IP. In all of these constructions, semantic parallelism of the underlying clauses licenses ellipsis, a requirement imposed by the Focus Condition (22). The interpretive link between *d*XP and anchor is established pragmatically, exactly like a corresponding intersentential antecedent–pronoun dependency.[21]

The analysis obviates the postulation of V3 structures in CLD, deriving the surface form from an underlying juxtaposition of V2 clauses.[22] The paradox noted at the outset of this paper disappears: the *d*XP is external to the core clause because it is the surface remnant of a separate clause; since this separate clause and the core clause are underlyingly parallel, however, the fronted *d*XP behaves as if it was an integral part of the latter.[23]

[21]Note that languages like German and Dutch systematically allow for topic drop of strong nominative/accusative pronouns. CLD as implemented here combined with topic drop allows for a natural interpretation of Koster's (1978) 'satellite hypothesis' concerning sentential subjects:

(i) a. Dass seine$_i$ Eltern sich lieben glaubt jedes Kind$_i$.
that his parents each other love believes every child
'Every child believes that his/her parents love each other.'
b. [$_{CP_1}$ [$_{CP}$ dass seine Eltern sich lieben]$_i$ ~~glaubt jedes Kind t_i~~] [$_{CP_2}$ ~~das$_k$~~ glaubt jedes Kind t_k]

Various effects noted by Koster follow from this analysis, and it has the additional advantage of explaining the reconstruction effect witnessed in (i-a) (unlike Koster's own analysis, which base-generates subjects at the edge of CP). Needless to say, the question of why a regular monoclausal V2 derivation should be blocked for sentential subjects remains to be answered, especially because this is just the way in which CP_1 in (i-b) is derived. More generally, the option of topic drop in CP_2 suggests that many V2 sentences are structurally ambiguous between a standard monoclausal derivation and a CLD-*cum*-topic drop analysis. I can see no harm in this consequence and will not pursue the matter further here.

[22]Note that on the present analysis both *d*XP and core clause are propositional structures. It is therefore straightforward to extend the analysis to cases like the following:

(i) Den Peter? Ja, den habe ich gesehen.
the Peter yes him have I seen
'Peter? Yes, I saw him.' (GE)

According to the ellipsis analysis, there is no clear line to be drawn between the matrix fragment question and a *d*XP; note also that case agreement obtains between *d*XP and anchor.

[23] As amply documented by Grohmann 2003; Frey 2004b; Grewendorf 2008 a.o., connectivity (including case connectivity) is the prime difference between CLD and HTLD (see footnote 4):

(i) *Sein$_i$ Vorgarten, jeder$_i$ will ihn schönhalten.
his.NOM *front lawn everyone wants him*.ACC *pretty.keep*

5 Predictions and extensions

In this section, I will investigate further predictions of the ellipsis analysis of CLD. The discussion will adduce substantial additional support for this approach.

5.1 Islandhood of the *d*XP

The present approach predicts that the *d*XP cannot contain a trace related to an element in the core clause. This is so because the *d*XP is the remnant of a separate clause; thus any movement into the core clause would imply inter-clausal rightward movement.[24]

The relevant test cases involve CLD of VPs. First, however, consider the fact that VP-topicalization in German can strand arguments (Müller 1998):

(47) Zugegeben hat er nicht dass er falsch lag.
admitted has he not that he false laid
'He didn't admit that he had been mistaken.' (GE)

The CLD counterparts of these topicalizations are unacceptable; by contrast, no problem arises when the stranded argument is pied-piped:

(48) a. *Zugegeben, das hat er nicht dass er falsch lag.
admitted that has he not that he wrong laid

b. Zugegeben dass er falsch lag, das hat er nicht.
admitted that he wrong laid that has he not

*'As for his frontlawn, everyone wants to keep it pretty.' (GE; Grohmann 2003)

The main question for an analysis of these constructions appears to be whether the nominative case of a hanging topic is a true *nominativus pendens* (see Merchant 2004b for some discussion of 'default case'), or assigned in some more or less standard way. If the latter, one might pursue an approach not unlike that adopted in this paper for CLD, but with a different underlying structure of the *d*XP. For instance, the hanging topic could be the (nominative) subject of a reduced copular clause:

(ii) a. Der Peter, ich kenne ihn nicht.
*the.*NOM *Peter I know him.*ACC *not*
'As for Peter, I don't know him.' (GE)

b. [$_{CP_1}$ der Peter [⟨ist es⟩]] [$_{CP_2}$ ich kenne ihn nicht]
the Peter is it I know him not

Hanging topics would then be derived somewhat akin to discourse-initial fragments according to Merchant (2004a). For purposes of the present work, I will leave it at this highly tentative suggestion.

[24] Notice that the same conclusion follows if the two CPs are related syntactically by adjunction, in which case extraction would be blocked by the Adjunct Condition.

Facts like the deviance of (48-a) have no straightforward explanation on the assumption that CLD constructions are monoclausal, and that the *d*XP has moved to the left periphery. In this case, stranding of the complement clause would be expected to be just as acceptable as in (47) (topicalization).

By contrast, the pattern is directly predicted by the ellipsis approach: to derive a case like (48-a), the stranded argument would have to be extracted from the *d*XP; but such cross-clausal movement dependencies are generally impossible.

(49) $[_{CP_1}\ [_{VP}\ t_i$ zugegeben] ~~hat er nicht …~~] $[_{CP_2}\ \ldots\ [_{CP}$ dass er falsch lag$]_i]$

Note that the core clause of (48-a) by itself is unacceptable (**Das hat er nicht dass er falsch lag*) irrespective of context, the stranded complement clause being 'host-less.' Therefore, an alternative parse without movement from CP_1 into CP_2 will equally result in deviance.

5.2 Parallelism and control infinitivals

Infinitival control clauses provide additional evidence against a base-generation analysis of CLD, and for the ellipsis analysis; the argument is based on observations by Truckenbrodt (forthcoming) in his discussion of right-dislocation.[25] The relevant fact is that controlled *PRO*, unlike overt proforms, cannot serve as an anchor for a *d*XP:

(50) a. Peter hat angeordnet [*PRO* die Straße zu fegen]
Peter has ordered the street to sweep
'Peter ordered the street to be swept.' (GE)

b. *Die Arbeiter$_i$, Peter hat angeordnet [*PRO*$_i$ die Straße zu fegen]
the workers Peter has ordered the street to sweep

The deviance of (50-b) contrasts with (51), where the embedded clause is finite:

(51) Die Arbeiter, Peter hat angeordnet dass die die Straße fegen sollen.
the workers Peter has ordered that they the street sweep should

Explaining the deviance of (50-b) is trivial task for proponents of a base-generation (adjunction) analysis relying on a CHAIN-formation mechanism like (15). By contrast, the

[25] Truckenbrodt argues that right-dislocated XPs are remnants of ellipsis, much like what is proposed here for CLD. His proposal is thus very similar to that made in Ott in progress, where the current approach is applied to right-peripheral constructions. Truckenbrodt's approach is somewhat more limited in its empirical scope, and moreover relies on gapping rather than sluicing. See Ott in progress for discussion.

present approach provides a principled explanation. For parallelism of CP_1 and CP_2 to be satisfied (and hence, for ellipsis in CP_1 to be licensed), *die Arbeiter* in (50-b) would be required to have the following underlying pre-deletion structure:

(52) *[$_{CP_1}$ die Arbeiter$_i$ [$_{IP}$ hat Peter angeordnet [$_{CP}$ t_i die Straße zu fegen]]]

Just like its free-standing version (**Die Arbeiter hat Peter angeordnet die Straße zu fegen*), a structure like (50-b) necessarily induces deviance, the fronted subject NP not having received case. Thus, subject *d*XPs anchored by *PRO* as in (50-b) are impossible because the infinitival clause fails to license an overt subject; parallelism simply cannot be satisfied in these cases.[26] By contrast, no conflict between parallelism and subject licensing arises in finite (51). Note that parallel facts obtain in sluicing, (53-a) corresponding to (50-b):

(53) a. *Peter hat angeordnet die Straße zu fegen, aber ich weiß nicht wer.
Peter has ordered the street to sweep but I know not who
int.: 'Peter ordered someone to sweep the street, but I don't know who.'

b. *[$_{CP_2}$ wer$_i$ ~~[$_{IP}$ Peter angeordnet hat [$_{CP}$ t_i die Straße zu fegen]]~~]

5.3 Forward ellipsis in CLD

In the cases discussed of CLD so far, the directionality of ellipsis is *backward*: the antecedent (= the IP of CP_2) linearly follows the ellipsis site (= the IP of CP_1). This mode of analysis leads us to expect that ellipsis directionality can be reversed, i.e. that a variant of CLD exists that is derived by means of *forward* ellipsis (as in regular sluicing and fragment answers). In this section I will show that this prediction is borne out.

I assume that cases like the following are instances of CLD derived by forward ellipsis:

(54) a. Maria fragte sich, welche seiner Freunde Hans heute getroffen hatte. ⟨Den
Maria wondered which of his friends Hans today met had the
Peter, das wusste sie ganz sicher.⟩ Aber auch den Otto?
Peter that knew she certainly but also the Otto
'Maria wondered which of his friends Hans had met today. Peter, that was

[26] Note that this conclusion presupposes a slightly stricter notion of parallelism than what is assumed in section 3 (Merchant's Focus Condition, based on e-GIVENness); that this is needed is shown independently by the sluice in (53-a). See Tanaka 2011 and sources cited there for arguments that ellipsis requires at least some morphosyntactic identity (in addition to semantic parallelism). Note also that even if a counterpart of (52) with a finite embedded clause were licensed under parallelism, long movement of the *d*XP would be blocked by the non-bridge nature of the control predicate.

clear. But Otto as well?' (GE)

b. Maria vroeg zich af wie Hans allemaal had ontmoet. ⟨Peter, dat was
Maria asked herself PRT *who Hans all had met Peter that was*
duidelijk.⟩ Maar ook Otto?
clear but also Otto
'Maria wondered who (all) Hans had met today. Peter, that was clear. But Otto as well?' (DU; Mark de Vries, p.c.)

Let us focus on the German example in (54-a) (the Dutch case is equivalent). Here, the first sentence (more accurately, its IP *Hans heute (t) getroffen hatte*) acts as the antecedent for ellipsis in the following clause: *den Peter* is the surface remnant of the clause *den Peter hatte Hans heute getroffen* 'Hans had met Peter today.' It is this proposition that is subsequently resumed by the *d*-pronoun *das* (a propositional proform). Thus, the underlying structure of the part of (54-a) in angled brackets is as follows:

(55) $[_{CP_1}$ den Peter$_k$ hatte Hans t_k getroffen$]_i$ $[_{CP_2}$ das$_i$ wusste sie ganz sicher]

IP-ellipsis in CP_1, licensed under parallelism with the preceding clause (not shown here below) yields the surface form:

(56) $[_{CP_1}$ den Peter$_k$ ~~hatte Hans t_k getroffen~~$]_i$ $[_{CP_2}$ das$_i$ wusste sie ganz sicher]

This analysis accurately captures the meaning of the bracketed portion of (54-a), satisfying the Focus Condition. The only difference to the cases previously discussed is that here, the antecedent for the elided IP is located in *preceding* discourse, and that the anchor resumes (not the *d*XP itself but) the entire proposition of which the *d*XP is the surface remnant. As expected, a non-elliptical surface form corresponding to (55) (with IP deaccented) is equally acceptable and identical in meaning.[27]

Adopting the ellipsis analysis, there seems to be no principled reason to exclude cases like (54-a) from the discussion of CLD. 'Forward CLD' shows reconstruction effects:[28]

[27]Erich Groat (p.c.) suggests a slight variation of this analysis, according to which CP_1 is embedded by a clause parallel to CP_2 (call it CP_x), and IP-ellipsis reduces both clauses:

(i) $[_{CP_x}$ $[_{CP_1}$ den Peter ~~hatte Hans getroffen~~$]_i$ ~~wusste sie t_i ganz sicher~~] $[_{CP_2}$ das wusste sie ganz sicher]

I set this alternative possibility aside here, as the simpler structure assumed in the text seems to be sufficient to derive the central cases. Note also that (i) requires illicit topicalization of a V2 clause.

[28]Note that the same is true for the English translation, suggesting that the analysis applies here as well

(57) Wen mag denn jeder Mann$_i$? ⟨Seine$_i$ Mutter, das ist klar.⟩ Aber wen noch?
who likes PRT *every man his mother that is clear but who else*
'Who does every man like? His mother, that's clear. But who else?' (GE)

Here, the pronoun inside the *d*XP is seemingly bound by *jeder Mann* in the preceding sentence. This follows straightforwardly on the present analysis, according to which the underlying structure of the *d*XP in (57) is as follows, allowing for local binding of the pronoun internally to its clause under reconstruction:

(58) [[seine Mutter]$_i$ mag jeder Mann t_i]

It is this proposition that is resumed by the anchor in the following clause, yielding the interpretation (roughly) 'It is clear that every man loves his mother.' The reconstruction witnessed in (58) is thus directly parallel to the following fragment answer:

(59) A: Wen liebt jeder Mann$_i$? – B: Seine$_i$ Mutter.
who loves every man his mother
'Who does every man love?' – 'His mother.' (GE)

Notice that in cases of 'forward CLD' the anchor resumes the entire CP_1, rather than just the XP that surfaces as CP_1's remnant. Recall now from section 3 that dislocated QPs, *wh*-phrases and anaphors are unacceptable:

(60) a. *Keinen Studenten, den habe ich gesehen.
no student him have I seen
'I saw no student.' (GE)

b. *Wen, den hat Peter gesehen?
who him has Peter seen
'Who did Peter see?'

c. *Zichzelf, die heeft hij nog nooit overgeslagen.
himself him has he yet never passed over
'He hasn't ever passed himself over.' (DU)

As expected, these categories can appear in well-formed cases of CLD in which the directionality of ellipsis is forward:

(61) a. Wem würde der Dekan dieses Amt zutrauen? ⟨Keinem Studenten, das
*who would the dean this office trust no.*DAT *student.*DAT *that*

despite the fact that English lacks regular CLD of the backward-ellipsis type.

war offensichtlich.⟩ Aber einem der Professoren?
*was obvious but one.*DAT *of the professors*
'Who would the dean trust to carry out the duties of this office? No student, that was obvious. But one of the professors?' (GE)

b. Maria wusste, dass Hans mit jemandem gesprochen hatte. ⟨Aber mit
Maria knew that Hans with someone spoken had but with
wem, das wusste sie nicht.⟩
who that knew she not
'Maria knew that Hans had been speaking with someone. But who with, that she didn't know.' (GE)

c. Van wie hield Peter eigenlijk? ⟨Van zichzelf, dat hebben we gemerkt.⟩
of who loved Peter actually of himself that have we noticed
Maar van wie nog meer?
but of who else
'Who did Peter love, actually? Himself, that was clear enough. But who else?' (DU; Mark de Vries, p.c.)

Note that the dislocated *wh-d*XP in (61-b) renders such cases visibly parallel to sluicing. Beyond the superificial resemblance, CLD of *wh-d*XPs allows us to establish certain deeper parallels between such constructions and sluicing. Consider the fact that Bavarian complementizer agreement is bled by sluicing (Günther Grewendorf, p.c.):

(62) a. I woass net wo-ts ihr a Madl gseng hoabts.
*I know not where-2*PL *you.2*PL *a girl seen have*
'I don't know where you saw a girl.' (Bavarian)

b. I woass dass-ts ihr a Madl gseng hoabts, owa I woass net wo(*-ts).
*I know that-2*PL *you.2*PL *a girl seen have but I know not where*
'I know that you saw a girl, but I don't know where.'

Such complementizer agreement is likewise obligatorily absent on *wh-d*XPs:

(63) A: I frog mi, wann-st (du) endlich hoam kimmst.
I ask REFL *when-2*SG *2*SG *finally home come*
'I'm wondering when you'll finally come home.'

B: Des frog i mi a, wann(*-st).
that ask I REFL *also when*
'That I'm wondering myself, when.'

Whatever the reason for this bleeding effect (see Ott 2011a for some discussion), the par-

allel absence of agreement in (62-b) and (63)B suggests that in each case the *wh*-fragment is derived by deletion.

(64) Irgandwann werd-ts (es) des vasteh. Aber wann(*-ts), des wiss-ma net.
*sometime will-2*PL *2*PL *that understand but when that know-we not*
'At some point you will understand this. But when, that we don't know.'

Two further parallels point to the same conclusion. Dialectal Norwegian, like English, allows for inversion of the *wh*-remnant and a stranded P in sluicing (*med hvem* 'with who' → *who with* 'who with'), a phenomenon dubbed 'swiping' in Merchant 2002:

(65) Per gikk på kino men jeg veit ikke hvem med.
Per went to cinema but I know not who with
'Per went to the cinema, but I don't know who with.' (dial. NO)

Dialects of Dutch show allow for demonstrative pronouns to be stranded next to sluiced *wh*-phrases in certain contexts, a phenomenon labeled 'spading' in van Craenenbroeck 2010b:

(66) A: Jef ei gisteren iemand gezien. – B: Wou da?
Jef has yesterday someone seen who that
A: 'Jef saw someone yesterday. – B: 'Who?' (Wambeek DU)

I will not attempt to analyze swiping or spading; see the above references for discussion. What matters here is that both swiping and spading are considered highly idiosyncratic phenomena, strictly confined to sluicing environments. The fact that both phenomena can be found with dislocated *wh*-phrases (in 'forward CLD') therefore corroborates my claim that these constructions have a similar derivational source:

(67) M. visste at P. var gått på kino. Men hvem med, det visste hun ikke.
M. knew that P. was gone on theater but who with that knew she not
'Marit knew Per had been to the theater. But who with, that she didn't know.'
(dial. NO; Øystein Vangsnes, p.c.)

(68) Jef ei me Marie geklapt. Mo wuiroem da, da weet ik nie.
Jef has with Marie spoken but why that that know I not.
'Jef talked to Marie. But why, that I don't know.'
(Wambeek DU; J. van Craenenbroeck, p.c.)

The theoretical assimilation of sluiced *wh*-phrases, *wh*-fragments and *wh-d*XPs advanced here thus receives substantial support.

5.4 Island obviation in CLD

In this section, I investigate two seemingly paradoxical locality effects in German CLD. I will first turn to Frey's (2004b) observation that certain cases of CLD seem to require otherwise illicit extraction from V2 clauses, a problem that is avoided by the present analysis. I then discuss facts observed by Grewendorf (2008) that seem to indicate a general island insensitivity of CLD in certain contexts.

5.4.1 Apparent extraction from V2 clauses

As noted in section 2, CLD does not strictly require fronting of the anchor; the *d*XP shows connectivity regardless of this movement. Frey (2004b) observes that long-distance CLD out of V2 clauses is possible when the anchor remains *in situ*:

(69) Seinem$_i$ Vater, Maria glaubt [$_{CP}$ jeder$_i$ wird dem Geld leihen]
*his.*ACC *father Maria thinks everyone will him.*ACC *money lend*
'Maria thinks that everyone will lend money to his father.' (GE; Frey 2004b)

Such cases pose a serious problem for any direct-movement analysis of CLD. If the *d*XP had moved from a clause-internal position (as indicated by the reconstructed binding relation), it would have moved from the embedded V2 clause into the matrix. However, extraction from V2 topic islands is generally sharply deviant:

(70) *Wem$_i$ glaubt Maria [$_{CP}$ jeder wird t_i Geld leihen]?
who thinks Maria everyone will money lend
int.: 'Who does Maria think that everyone would lend money to?' (GE)

Evidently, advocates of a direct-movement analysis of CLD are hard put to explain the difference in acceptability between (69) and (70).

On the ellipsis analysis of CLD, the conundrum disappears. V2 and verb-final clauses are semantically parallel for purposes of ellipsis licensing, as witnessed in standard cases of sluicing (Merchant 2001).[29] CP_1 can then be assumed to have a structure in which the

[29] Consider a simple sluicing case like the following, where the antecedent is V2 and the elided embedded clause verb-final:

(i) Peter hat jemanden gesehen, aber ich weiß nicht wen (er gesehen hat).
Peter has someone seen but I know not who he seen has
'Peter saw someone, but I don't know who (he saw).' (GE)

*d*XP undergoes long movement from within a verb-final object clause, not crossing any island boundary:

(71) [$_{CP_1}$ [seinem$_i$ Vater]$_k$ ~~glaubt Maria t'_k dass jeder$_i$ t_k Geld leihen wird~~]

[$_{CP_2}$ Maria glaubt jeder wird dem Geld leihen] (= (69))

Since the anchor in (69)'s CP_2 remains *in situ*, no movement violation arises; fronting of the anchor out of the V2 clause yields deviance on a par with (70), as expected:

(72) *Seinem Vater, dem$_k$ glaubt Maria, jeder wird t_k Geld leihen
*his.*ACC *father him.*ACC *thinks Maria everyone will money lend*

5.4.2 Grewendorf's paradox

In the case just discussed, I argued that extraction of the *d*XP from an island is illusory: the elided structure permits extraction. We will now turn to examples of seemingly island-violating CLD for which it is less straightforward to apply the same reasoning.

Grewendorf (2008) observes that certain CLD configurations appear to show connectivity without island-sensitivity. Recall that CLD is generally island-sensitive:

(73) *Den Peter$_i$, den$_i$ kenne ich die Frau die t_i zuletzt gesehen hat
the Peter that know I the woman that last seen has
int.: 'I know the woman who saw Peter last.' (GE)

However, Grewendorf notes that parallel cases with an *in situ* anchor separated from the *d*XP by an island boundary are fairly acceptable; crucially, in this case the *d*XP nevertheless exhibits connectivity into the matrix:

(74) ?Seinen$_i$ Sitzplatz, nachdem jeder Passagier$_i$ den eingenommen hatte,
*his seat.*ACC *after every passenger.*ACC *that taken had*
konnte das Flugzeug starten.
could the plane take off
'When every passenger had found his/her seat, the plane could take off.' (GE)

A perhaps slightly more natural example, due to Jason Merchant (p.c.), is the following:[30]

[30] Advocates of a direct-movement analysis might object that the *d*XP has not actually moved out of an island in such cases, but merely to the edge of the island. Such an approach is not trivial to implement, however. In most treatments of islands, such as Chomsky's (1986a) *Barriers* framework and its refinements in Baker 1988 and Müller 1995, movement to the edge of an island is crucially not allowed: edges are *escape*

(75) Ihre Kinder$_i^k$, wenn die$_i$ keine Mutter^k mehr liebt geht die Gesellschaft
her children when them no mother anymore loves goes the society
unter.
under
'When no mother loves her children anymore, society will go down.' (GE)

We can add to this apparent violations of the Coordinate-structure Constraint such as the following:

(76) a. ?Seinen$_i$ Doktorvater, jeder Student$_i$ hat den und dessen Frau schon mal
his advisor every student has him and his wife at some point
zum Essen eingeladen.
for dinner invited
'Every student has invited his advisor and his (= the advisor's) wife for dinner at some point.' (GE)

b. ?Sina$_i$ böcker, jag vet inte var varje författare$_i$ går och köper dem.
his books I know not where every author goes and buys them
'I don't know where every author goes and buys his books.'
(SW; Eric Lander p.c.)

Evidently, from the perspective of a direct-movement analysis the above examples display contradictory properties: reconstruction indicates movement of the *d*XP, despite the fact that this movement dependency straddles an island boundary.[31]

The ellipsis approach suggests an explanation. It has been known since Ross's (1969) seminal work that sluicing can ameliorate island violations (examples from Merchant 2001):[32]

hatches, and hence movement to the edge would facilitate further movement, rendering the notion of 'island' entirely vacuous. It is thus not trivial to simply declare the movements in (74) and (75) non-island-crossing and hence permissible. (I'm indebted to Jason Merchant for helpful discussion of this issue.) Moreover, this objection does not extend to cases like (76).

[31] Grewendorf (2008) speculates that such cases might be acceptable because of the presence of the anchor inside the island, acting as a resumptive pronoun. This explanation is implausible, however, in light of the fact that German generally lacks island-obviating resumption strategies of the English type (Boeckx 2003).

[32] Temmerman (2011) documents such island repair in embedded fragment answers in Dutch (the German facts are parallel), which differ in this respect from their English counterparts discussed in Merchant 2004a:

(i) A: Is Jack gekomen omdat hij MARIN wil versieren?
is Jack come because he Marin wants seduce
'Did Jack come because he wants to seduce Marin?'
B: Nee, ik had gedacht LYNN.
no I had thought Lynn
'No, I thought it had been LYNN.' (DU; Temmerman 2011)

(77) a. They want to hire someone who speaks a Balkan language, but I don't know which Balkan language (*they want to hire someone who speaks).

b. Zij hebben een lange man aangesteld, maar ik weet niet hoe lang (*zij hebben een man aangesteld).
they have a tall man hired but I know not how tall they have a man hired
'They hired a tall man, but I don't know how tall.' (DU)

Whatever the exact nature of 'island amelioration' under ellipsis is (repair or circumvention[33]), the fact that the phenomenon exists provides us with a handle on the acceptability of the above examples. On the approach developed here, the *d*XP is the surface remnant of a clausal structure; everything else being equal, we thus expect to find island repair/avoidance here as well. Adopting for concreteness's sake Chomsky's (1972) notation, CP_1 in (75) would involve movement across and island boundary (marked by #), repaired by ellipsis of the matrix IP containing the island:[34]

(78) $[_{CP_1}$ [ihre Kinder]$_i$ $[_{IP}$ ~~geht die Gesellschaft unter #[wenn keine Mutter mehr t_i liebt]~~]] (= *d*XP of (75))

Similarly for an example like (76-a):

(79) $[_{CP_1}$ [seinen Doktorvater]$_i$ $[_{IP}$ ~~hat jeder Student #[t_i und dessen Frau] schon mal zum Essen eingeladen~~]] (= *d*XP of (76-a))

Once again, the ellipsis approach suggests a way out of what looks like a paradox: cases like (74)–(76) involve island repair/avoidance in CP_1, as known from other ellipsis contexts; since the anchor in the non-elliptical CP_2 doesn't move, no island violation arises on the whole. While I have here remained agnostic about the exact nature of the repair taking place in CP_1, the important fact is that the ellipsis approach leads us to expect such effects, while they are entirely unexpected (in fact, paradoxical) otherwise.

[33] Different routes have been taken to account for island obviation under ellipsis. Building on a suggestion in Chomsky 1972, Lasnik (2001), Merchant (2004a, 2008) and Fox and Lasnik (2003), among others, have argued for a 'literal-repair' approach, according to which ellipsis at PF removes offending structure or features. As an alternative, Merchant (2001) and Abels (2011) have suggested that island repair (in most cases, at least) is illusory: a semantic/pragmatic conception of ellipsis parallelism (as proposed in Merchant 2001) allows for source structures that are 'parallel enough' in meaning to be licensed but don't contain an island. For a recent, again slightly different approach, see Griffiths and Lipták 2011.

[34] Notice that reconstruction into the island must still be available, yielding the bound-variable reading. That such reconstruction is possible is shown for island-repairing sluicing in Lasnik 2001.

6 Conclusion: dislocation subdued

Is CLD derived by movement or base-generation of the *d*XP? This is the question that has dominated the literature on CLD so far, but neither option offered by this traditional dichotomy turns out to be adequate. In this paper, I have proposed an alternative view that unravels the mystery: *d*XPs are *both* clause-external—in the sense that they are fragments of a separate clause—*and* clause-internal—in the sense that the reduced clause is underlyingly parallel to the core clause. The underlyingly biclausal structure of CLD, masked by PF-deletion, thus allows us to have our cake and eat it, too. The following structure summarizes the proposal schematically:

(80) $[_{\mathrm{CP}_1}\ d\mathrm{XP}_i\ [\sout{_{\mathrm{IP}}\ \ldots\ t_i\ \ldots\ ]}]\ [_{\mathrm{CP}_2}\ \ldots\ \text{anchor}\ \ldots\ ]$

The *d*XP having undergone regular *Vorfeld* movement within CP_1, the analysis correctly predicts it to display the exact same grammatical properties it would have in the corresponding non-elliptical clause (θ-role, case, P-stranding, reconstruction), without having to resort to any special mechanisms. As I have shown, the analysis in (80) naturally extends to cases of CLD with forward deletion in CP_1, and suggests explanations for the apparent obviation of certain locality constraints.

Note that the analysis relies exclusively on the independently attested grammatical operations of $\overline{\mathrm{A}}$-movement ('topicalization') and clausal (IP-)ellipsis. A grammar equipped with these operations is thus automatically predicted to generate CLD constructions. Consequently, the 'construction' labeled CLD can be eliminated from the theory of UG.

Needless to say, there remain gaps to be filled. I have said nothing about the pragmatic import of the *d*XP (a rich topic, but plausibly not grounded in syntax[35]); I remained agnostic about the structural relation between the clauses underlying a CLD construction (see footnote 14); and a fully worked-out theory of backward-ellipsis licensing is pending (except for some highly tentative remarks in footnote 13). However, the scope of the analysis presented in this paper being as it is restricted to the purely structural properties of CLD, I hope to have shown that it succeeds in this domain.

[35]Note that I could've postulated assignment of a [+CT] (contrastive topic) feature or the like to the *d*XP, or stipulate that it moves to some kind of 'ContrastP,' similar to what is assumed in Frey 2004a for Vorfeld movement of non-subjects. Such moves amount to little more than restatements of the observed facts, however; they provide no more insight than the assumption—tacitly adopted here—that pragmatic effects such as contrastivity are functions of the periphery, pragmatics only exploiting whatever options the syntax it presents it with.

There are promising indications that the present approach can be extended to cover other manifestations of left-dislocation in languages not discussed here, in particular to Clitic Left-dislocation, which shares many core properties with CLD (see Alexiadou 2006 for an overview, and Boeckx and Grohmann 2004 for a comparison of CLD in German and CLLD in Lebanese Arabic). I will return to these crosslinguistic extensions in future work. What is clear already is that the logic of the approach can be fruitfully applied to other types of dislocation constructions, in particular those involving the right periphery. In recent/ongoing work complementing the present paper (Ott 2011b, in progress), I show that the analysis carries over to right-dislocation as in (81-a), analyzed as in (81-b):

(81) a. Ich habe ihn gestern noch gesehen, den Peter.
I have him yesterday still seen the Peter
'I saw Peter just yesterday.' (GE)

b. [$_{CP_1}$ ich habe ihn gestern noch gesehen]
[$_{CP_2}$ [den Peter]$_i$ ~~habe ich gestern noch t_i gesehen~~]

Here, the situation is similar to that found with CLD: the peripheral XPs are added to a complete, gapless clause but exhibit connectivity nonetheless. The reader is referred to Ott 2011b, in progress for details of this approach.

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