

An Experimental Investigation of Partial Control in German¹

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1. Introduction

1.1 Partial Control - The Phenomenon

- Typical complement-/obligatory control sentences (OC) involve referential identity between controller and the covert infinitival subject.²

- (1) a. Peter_i decided [PRO_i to read the book].
b. Peter_i persuaded Hans_j [PRO_{ij} to read the book].

- Landau (2000) (attributing the original observation to Wilkinson 1971) highlights the fact that OC does not always require strict identity between controller and controllee.

- Cf. collective predicates which require a (semantically) plural subject (2).

- (2) a. Yesterday, *the chair / the committee gathered at 6.
b. Yesterday, *Bill / the committee gathered without a concrete agenda.

- If OC requires strict referential identity between controller and PRO, embedding a collective predicate below a control predicate with a (semantically) singular controller should lead to unacceptability. This prediction is not borne out (3).

- (3) a. The chair_i preferred [PRO_i to gather at 6].
b. Bill_i regretted [PRO_i meeting without a concrete agenda].
(Landau 2013, 157: (287))

- In (3), PRO denotes a set of people of which the controller is a proper subpart (indicated by the subscript 'i+'; see Landau 2000).

➤ **Partial Control** (PC henceforth)

- Some (alleged) properties of PC:

- qualifies as **OC** (Landau 2000, 2004, 2008, 2013; Pearson 2013; a.o.; see Wurmbrand 2002, 2003 for a different view)
- the mismatch is in **semantic number** only. Syntactically, PRO in (3) is singular, e.g., it does not license plural anaphors (Landau 2000).³

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² We follow the traditional literature in calling this element PRO. This is done for the sake of convenience and should not be read as a dedication to any specific Control Theory.

³ Modesto (2010) argues that in Brazilian Portuguese, control into inflected infinitives allows for mismatches in syntactic number. Similarly, Sheehan (2012) argues that in European Portuguese, true cases of PC allow for person mismatches. The data, however, are disputed (see, e.g., Landau 2016a for criticism and discussion).

- (4) a. John and Mary / *Bill talked to each other.
b. *Bill_i regretted [PRO_i talking to each other].
- is **not acceptable with all matrix predicates** (Landau 2000, 2004, 2008, 2013, 2015; van Urk 2010; Grano 2012, 2015; Pearson 2013, 2015; White & Grano 2014).

- (5) a. *John_i managed [PRO_i to gather at 6].
b. *The chair_i began [PRO_i meeting with a concrete agenda].
(Landau 2013, 157: (286))

- Predicates that disallow PC: **Exhaustive Control** (EC) predicates:

- (6) *Sample set of EC-predicates* (from Landau 2000)

dare, manage, make sure, bother, remember, avoid, forget, fail, force, begin, start, continue, have, need, may, rude, smart, crazy

- Predicates that allow PC: **Partial Control** (PC) predicates:

- (7) *Sample set of PC-predicates* (from Landau 2000)

glad, regret, like, hate, surprised, believe, think, suppose, say, claim, deny, want, prefer, arrange, hope, afraid, plan, offer, decide, intend, promise, wonder, ask, know

Note. Different factors have been proposed as the reason for a verb's behavior:

Landau (2000 et seq.): PC predicates select temporally non-anaphoric infinitives

Pearson (2013), Landau (2015): only non-simultaneous attitude predicates license PC

Grano (2012, 2015): PC predicates are non-restructuring predicates⁴

- Since the lists of EC/PC predicates are largely (though not completely) identical across the different proposals, the question which factors are at the heart of the distinction is not relevant for our study.

1.2 Two ways of treating PC in the literature⁵

- (i) Landau (2000, 2004, 2008, 2013): correlation between acceptability of PC and a semantically tensed infinitival complement (cf. (8), (9)).

- (8) a. *John managed to read the book tomorrow.
b. *John managed to gather at 6.

⁴ Wurmbrand (2001) takes the data in (i) to show that restructuring is optional. Grano's prediction would be that *versuchen* 'try' in (ib) functions as a main verb (rather than a functional item in the left periphery), taking an infinitival complement whose subject is PRO, and which thus should license PC – contrary to fact.

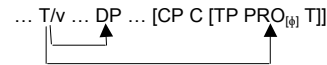
- (i) a. weil der Traktor zu reparieren versucht wurde. (long passive)
because the.NOM tractor to repair tried was
b. weil versucht wurde den Traktor zu reparieren.
because tried was the.ACC tractor to repair
'because someone tried to repair the tractor.'

⁵ This is not intended to be an exhaustive overview. The two approaches sketched should be taken as representatives of two camps: the one takes the mismatch between controller and PRO at face value (see also van Urk 2010; Grano 2012, 2015; Pearson 2013, 2015; Landau 2015, 2016a for other analyses in this vein), the other argues that there is no mismatch and PC is an epiphenomenon of something else.

- (9) a. John preferred to read the book tomorrow.
b. John preferred to gather at 6.
- leads him to propose a **syntactic difference** between the two control types (what he calls *PRO-control* and *C-control*)

(10) Landau's (2000) Agree-model of Control

PRO-control



C-control⁶



- The intermediate Agree relation between matrix T/v and C in C-control is assumed to allow for the number mismatch characteristic of PC.
- Since only tensed C has [_φ]-features that lead to C-control, untensed infinitives will obligatorily involve PRO-control and thus exclude PC.

(ii) Hornstein (2003), Boeckx, Hornstein & Nunes (BHN 2010): Downplay the significance of the matrix predicate in favor of the **relevance of the embedded predicate**. They argue that a PC reading is only possible if the embedded predicate *selects a comitative PP* (*with-PP* introducing a 'partner'; cf. Rákosi 2003; for a critique of (11) and (12), see Landau 2013)).⁷

- (11) a. *The chair sang alike/was mutually supporting with Bill.
b. The chair left/went out (with Bill).
c. The chair met/applied together for the grant (*with Bill).
- (12) a. *The chair hoped to sing alike/be mutually supporting.
b. The chair hoped to leave/go out.
c. *The chair hoped that he and other people would leave/go out.
The chair hoped to meet/apply together for the grant.
(BHN 2010: 185)

- PC is thus argued to involve EC and an embedded null comitative. Following Sheehan (2014a), we call the covert comitative analysis of PC **Fake PC**.

⁶ A tensed C-head, it is assumed, may optionally come with [_φ]-features.
⁷ Bowers (2010) claims that the predication of a collective predicate over a non-group denoting subject can even be found in raising contexts, as well as in simple finite clauses and is thus not control-specific. In a similar vein, Duffley (2014) argues that Partial Control is essentially a pragmatic phenomenon, claiming that enough context even licenses a partial control reading in the context of an EC-predicate:

(i) My virgin JRT bred a virgin bitch successfully on their first mating. They liked each other from the start and tried for at least 25 minutes and all was well. He looked comfortable, not frightened in the least and relaxed. On the second mating he was very affectionate and licked her and attempted to mount her. He *wasn't able to come together* after several attempts...
(Duffley 2014: 169, (83))

- (13) **Fake PC**
[The chair_i hoped [PRO_i to meet pro_{COMITATIVE} at 6.]]

• **An issue for the 'Fake PC' analysis**

- Landau (2013) & Sheehan (2014a) have shown that this approach does not extend to English, where also non-comitative predicates can surface in PC.

- (15) a. ?*Peter kissed with his girlfriend.
b. Peter told his girlfriend that he wants to kiss soon.

- Sheehan (2014a), however, argues that (13) is the correct analysis for PC in a number of Romance languages: In European Portuguese (EP) uninflected infinitives, for example, **only predicates that license comitatives can participate in PC** (cf. (14); *reconciliar-se* 'to make up' selects a comitative; *escrever-se* 'to write with s.o.' does not).⁸

- (14) a. (O Pedro está farto de discutir com a Maria.) Queria reconciliar=se.
the P. is sick of argue.INF with the Maria wanted make.up=SE
'Pedro is sick of arguing with Maria. He wants to make up.'
b. *(A Maria tem saudades do filho.) Queria escrever=se todos os dias.
the Maria has missings of.the son wanted write=SE all the days
'Maria was missing her son. She wanted to write with him all the time.'
(Sheehan 2014a, (24) & (27))

- Sheehan's work suggests that languages differ as to the mechanism employed in the derivation of PC-readings.⁹

		PC (-reading)
	3	
True PC	Fake PC (=covert comitative)	
English	French; EP uninflected infinitives	

1.3 PC in German (?)

Question: What can German contribute to the discussion?

- Answer Stiebels (2007, 2015): Nothing.
- PC is less common in German than in English.
- Constructed PC examples in German are *hardly acceptable* and naturally occurring ones are rare.
- PC in German is only acceptable (if at all) with (some) propositional attitude predicates (e.g., *befürworten* 'approve', *ablehnen* 'decline').

• **Our contribution**

⁸ This is only true for uninflected infinitives. In inflected infinitives, predicates that allow for a comitative PP are only a subset of the verbs that are acceptable in a PC-context (see Sheehan 2012, 2014a,b for details).

⁹ Landau (2016b) argues that the covert comitative analysis/Fake PC is incorrect even for French, where the availability of a PC reading depends on the comitative nature of the embedded predicate. See section 3 for some comments.

- Test whether Stiebels is right in claiming that German PC is rare or non-existent.
- Provide the first large scale experimental investigation of PC in German.

- Answer the question at the beginning of this section by investigating
- whether German allows PC at all.
 - whether German provides evidence for the EC/PC split.
 - where German is located in (16).

2. An experimental investigation of PC in German

2.1 The study

- **Task:** Judgment Questionnaire (administered online via Qualtrics)
 - **instructions:** participants were asked to rate 40 sentences according to their degree of acceptability in the given context (see *stimuli*).
 - **ratings:** continuous 1-7 scale of 'acceptability' (1 = unacceptable; 7 = fully acceptable)
- **Stimuli:**
 - Since the acceptability of PC sentences is known to depend on **the contextual salience of a plurality** including the controller (Landau 2000, White and Grano 2014, Duffley 2014, Landau 2015), all sentences were provided with a context.

(17) Example item

Context: Hans hat an einer inszenierten Datingshow teilgenommen. Dies führte dazu, dass die Frau, mit der er zusammenkommen sollte, überhaupt nicht sein Typ war. In seinem Vertrag steht jedoch, dass er die Frau mindestens ein weiteres Mal treffen muss.

'Hans participated in a scripted dating show. As a consequence, the woman he got together with wasn't his type at all. His contract, however, said that he had to meet her at least one more time.'

Er wurde vertraglich gezwungen, sich noch einmal zu treffen.
He became by contract forced REFL yet again to meet
'He was forced to meet again.'

- **Design:** 2x2 factorial design; variables were Control Verb Type (EC vs. PC) and Embedded Verb Type (+COM vs. -COM)
 - **Control Verb Type:** 4 EC predicates (from the list in (7))
11 PC predicates (from the list in (8))

- **Embedded Verb Type:**^{10,11} Predicates that license comitatives (+COM)

¹⁰ All embedded predicates were collective and allowed a semantically plural, but syntactically singular subject.

Predicates that do not license comitatives (-COM)

- This resulted in **four groups** of test stimuli:

(18) Test stimuli divided into 4 groups

EC; -COM	EC; +COM	PC; -COM	PC; +COM
4 sentences	4 sentences	11 sentences	11 sentences

- Stimuli were divided and counterbalanced across 2 questionnaire versions such that a single version contained each matrix or embedded predicate in only one condition.
- Each questionnaire also contained 25 fillers with a similar structure to the test items, for a total of 40 sentences each.

2.2 Results

- 102 German native speakers completed the questionnaire.
- One sentence from the [PC; -COM] group (*behaupten + anlächeln*) was excluded from further analysis, as the context may not have enforced a reciprocal reading.
- Participants used the scale as expected: the mean rating for grammatical fillers was **6.53** (SE=standard error: 0.04), while the mean for ungrammatical fillers was **1.37** (SE: 0.04). Fillers whose grammaticality was unclear had a mean rating of **3.71** (SE: 0.07).

(19) Mean acceptability of test stimuli by Control Verb Type and Embedded Verb Type (SE in parentheses)

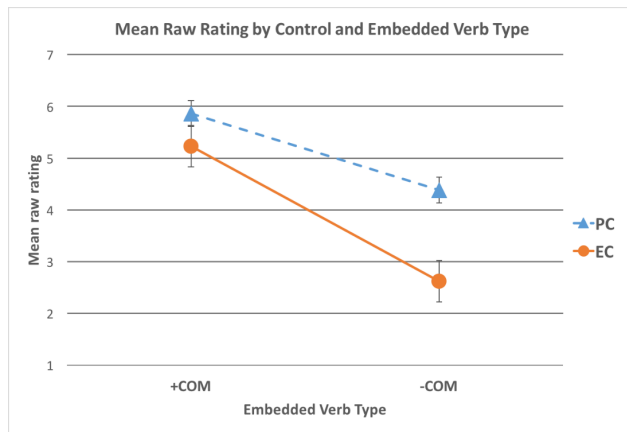
	+COM	-COM
EC	5.23 (0.40)	2.62 (0.40)
PC	5.86 (0.25)	4.38 (0.26)

(20) Figure 1: Mean acceptability by Control Verb Type and Embedded Verb Type (see table in (19))

- (i) Das Paar hat sich wieder versöhnt.
the couple has REFL again made.up
'The couple made up again.'

Most of the embedded predicates were inherently reflexive. In German, the form of the third person reflexive is syncretic for number. We thus only chose third person singular controllers to avoid an overt phi-feature mismatch between controller and reflexive as an interfering factor.

¹¹ To be precise, the *with*-PPs were all discontinuous phrases/argument comitatives (rather than comitative phrases/adjunct comitatives, cf. Rákosi 2003, 2012, Siloni 2011). The majority of comitative predicates were taken from Wiemer & Nedjalkov 2007.



• **Statistical analysis (with Jeannique Darby)**

- Ratings were analyzed using a linear mixed effects model with random intercepts for participants and items. Fixed effects were Control Verb Type (EC vs. PC), Embedded Verb Type (+COM vs. -COM), and their interaction.¹²

i) There was a **significant main effect of Control Verb Type** ($t = 3.71, p < 0.001$)

- Sentences with a **PC** predicate were overall rated **better** than sentences with an **EC** predicate.

(21) *A minimal pair with the same -COM predicate*

- a. Harald hat angefangen, sich zu begrüßen. [EC; -COM]
H. has begun REFL to greet
'Harald has begun to greet each other.' (item mean: 1.73)
- b. Silvy beschließt, sich wieder zu begrüßen. [PC; -COM]
S. decides REFL again to greet
'Silvy decides to greet each other again.' (item mean: 4.42)

ii) There was a **significant main effect of Embedded Verb Type** ($t = -6.36, p < 0.0001$)

¹² The model was implemented in R using *lme4* (Bates, Maechler & Bolker, 2012). p -values were calculated using likelihood ratio tests comparing models with and without the relevant predictor. Analyses using z -score normalized ratings did not differ in the pattern of effects; we therefore report raw ratings for ease of exposition.

- Sentences with an embedded **comitative** (+COM) predicate were overall rated **better** than sentences with an embedded **non-comitative** (-COM) predicate.

(22) *A minimal pair with the same EC predicate*

- a. Hans versucht, sich den Ball zuzuspielen. [EC; -COM]
H. tries REFL the ball pass
'Hans tries to pass the ball to each other.' (item mean: 2.57)
- b. Karl versucht, sich bis Weihnachten wieder zu versöhnen. [EC; +COM]
K. tries REFL until Christmas again to make up
'Karl tries to make up by Christmas.' (item mean: 5.81)

iii) The **interaction** between the two factors **approaches significance** ($t = 1.73, p = 0.07$)

- **EC** predicates showed a numerically **larger decrease** in acceptability between [+COM] and [-COM] embedded predicates; this difference was less pronounced for PC predicates.
- Likewise, the difference between sentences with EC predicates and with PC predicates was numerically **stronger for embedded non-comitatives** [-COM].

iv) **Post-hoc Tukey test:** In order to further determine how ratings in each of the four groups differed, we carried out post-hoc Tukey tests comparing each group pairwise to each other group. Groups which did not significantly differ from one another are assigned the same letter in the table below (means repeated from above).

(23) *Results of post-hoc Tukey test*

Group	Letter	Mean
PC; +COM	A	5.86
EC; +COM	A B	5.23
PC; -COM	B	4.38
EC; -COM	C	2.62

- [PC; +COM] exhibits the highest degree of acceptability:

- (24) a. Peter befürchtet, sich bei diesem Thema wieder zu verkrachen. [PC; +COM]
Peter fears REFL with this topic again to fall out
'Peter is afraid to fall out with his wife over this topic again.' (item mean: 5.77)
- b. Der Dekan schlägt vor, sich in zwei Wochen erneut zu versammeln.
the dean proposes REFL in two weeks again to gather [PC; +COM]
'The Dean proposes to gather again in two weeks.' (item mean: 6.36)

- > [EC; -COM] was the least acceptable, and significantly worse than other groups (including [PC; -COM]; see (25c)):
- (25) a. Harald hat angefangen, sich zu begrüßen. [EC; -COM]
H. has begun REFL to greet
'Harald has begun to greet each other.' (item mean: 1.73)
- b. Hans versucht, sich den Ball zuzuspielen. [EC; -COM]
H. tries REFL the ball pass
'Hans tries to pass the ball to each other.' (item mean: 2.57)
- c. Hans befürchtet, sich den Ball zu oft zuzuspielen. [PC; -COM]
H. fears REFL the ball too often to.pass
'Hans is afraid to pass the ball to each other too often.' (item mean: 4.07)
- > There is a significant difference between the two PC groups ([PC; +COM] and [PC; -COM]), as well as between the two EC groups ([EC; +COM] and [EC; -COM]).
(→ Embedded Verb Type-effect: comitative predicate improves acceptability)

(26) *PC groups by Embedded Verb Type*

- a. Peter befürchtet, sich bei diesem Thema wieder zu verkrachen. [PC; +COM]
Peter fears REFL with this topic again to fall out
'Peter is afraid to fall out with his wife at this topic again.' (item mean: 5.77)
- b. Hans befürchtet, sich den Ball zu oft zuzuspielen. [PC; -COM]
H. fears REFL the ball too often to.pass
'Hans is afraid to pass the ball to each other too often.' (item mean: 4.07)

(27) *EC groups by Embedded Verb Type*

- a. Der Trainer hat vermieden, sich zur 2. Nachbesprechung auf dem
the coach has avoided REFL to.the 2nd debriefing on the
Trainingsgelände zu versammeln. [EC; +COM]
training ground to gather
'The coach avoided gathering on the training ground for the second
debriefing.' (item mean: 5.75)
- b. Hans versucht, sich den Ball zuzuspielen. [EC; -COM]
H. tries REFL the ball pass
'Hans tries to pass the ball to each other.' (item mean: 2.57)

> [EC; +COM] did not significantly differ from either PC group (although it is numerically better than [PC; -COM]).

• **Experimental discussion**

- **EC/PC split:**

> a **PC-type matrix predicate increases acceptability.**

- > Suggests that the **split into EC and PC** in Landau (2000) and much subsequent work **exists in German**, too.
- > Suggests that **true PC exists in German** (see below).
- **Availability of fake PC:**
- > if the **embedded predicate is a comitative, acceptability increases.**
- > Suggests that **German also has Fake PC.**
- **True PC:**
- > The higher overall acceptability of sentences with PC predicates already suggests that German has true PC.
- > However, this is further supported by the ratings for the [PC; -COM] group, where no covert comitative was available:

(28) *Raw item means for [PC; -com]¹³*

matrix predicate; embedded predicate	Mean
vorschlagen 'propose'; ggs. unterstützen 'support each other'	6.57
bevorzugen 'prefer'; küssen 'kiss'	4.83
bedauern 'regret'; auseinanderleben 'drift apart'	4.73
hassen 'hate'; ggs. zuhören 'listen to each other'	4.60
beschließen 'decide'; begrüßen 'greet'	4.42
beabsichtigen 'intend'; umarmen 'hug'	4.12
befürchten 'be afraid'; zuspielen 'pass'	4.01
planen 'plan'; sich ggs. verprügeln 'beat each other up'	3.88
vorgeben 'pretend'; umarmen 'hug'	3.81
hoffen 'hope'; liebkosten 'caress each other'	2.80

¹³ In this study, we did not combine every non-comitative predicate with every matrix PC predicate (see White and Grano 2014 for such a study in English), so we refrain from drawing any conclusions about particular items. Still, our results are largely compatible with Pearson's contention that oblique non-simultaneous attitude predicates license PC best (*propose, prefer, regret, decide, plan, intend, be afraid*). Although White and Grano classify emotive factives such as *hate* as transparent attitude predicate, which are thus expected to behave like, e.g., *try*, this does not seem compatible with our results (see also Landau 2015). We leave this more fine-grained behavior for future research.

- **The ratings for this group range between ~4-5** (aside from an outlier, *hoffen+liebkosen*¹⁴).
- While these ratings are lower than for the [PC; +COM] group, **these sentences do not seem to be “hardly acceptable”**, as Stiebels claims. Indeed, they are **significantly better than the [EC; -COM] items** (mean: 2.62), **as well as the ungrammatical fillers** (mean: 1.37).

2.3 General Discussion

(29) Potential PC constellations

	+comitative	-comitative
EC predicate	Fake PC	unacceptable
PC predicate	Fake/True PC	True PC

- The **EC-PC split exists in German**: embedding a non-comitative predicate below an EC-predicate with a semantically singular subject leads to far lower acceptability than if the matrix predicate is a PC-predicate.
- German, unlike Romance languages and like English, has **true PC**.
 - Although **somewhat marked**, the acceptability judgments for instances of true PC were in general higher than in cases where a non-comitative PC reading is not possible (i.e., [EC; -COM] and ungrammatical fillers).
 - Stiebels' claim that German PC is rare or non-existent is not confirmed.
 - Our study does not allow any firm conclusion as to the correct analysis of true PC.
 - However, the fact that the items in the [PC; -COM] category seem to pattern as expected under Pearson's (2013, 2015) analysis suggests that her semantic extension mechanism (possibly with the coercion aspect discussed in White & Grano 2014) may be best suited to capture the data.¹⁵
- The relatively high degree of acceptability of [EC; +COM] sentences, which cannot fall under true PC under any analysis, suggests the existence of a **second mechanism to derive PC**. Given the restriction based on the embedded predicate, we tentatively propose that this mechanism is **Fake PC**.

¹⁴ The lower acceptability of this item may be due to the old-fashionedness of the embedded predicate.

¹⁵ Landau (2016a) proposes that the PC reading arises from a covert associative morpheme that is attached to the embedded verb(al phrase). Arguably, the varying judgments for different cases of true PC, as well as the gradability found in White & Grano's (2014) study, are somewhat unexpected: why should a speaker be able to employ a covert associative morpheme in one instance of PC, but not in another? How does the matrix predicate influence the availability of such a morpheme in the infinitival complement, as EC predicates still do not allow (true) PC? While Landau (2015) answers the latter question by referring to an asymmetry between variable binding (PC) and plain predication (EC), this is not enough to answer the former question.

- Sheehan (2012) argues that the covert comitative approach in the Romance languages still respects the EC-PC split: a comitative collective predicate cannot be embedded below an EC predicate with a semantically singular subject (30). **In German, by contrast, Fake PC cross-cuts the type of matrix predicate** (see the similar ratings for [PC; +COM] and [EC; +COM] in (23)).

(30) Fake PC with matrix EC-predicate in European Portuguese

*O Pedro conseguiu reunir-se hoje de manhã.
The Pedro managed.3.SG meet-SE.3 today of morning
'Pedro managed to meet this morning.' (Sheehan 2012: (17))

- We remain silent on the precise nature of the covert comitative, as well as on the licensing conditions of this element: most (if not all) comitatives in our study disallow a covert comitative in a simple finite context:^{16,17}

- (31) a. Der Dekan beschließt, sich in zwei Wochen erneut zu versammeln.
the dean decides REFL in two weeks again to gather
'The Dean decides to gather again in two weeks.'
- b. Der Dekan versammelt sich in zwei Wochen erneut *(mit den Professoren).
the dean gathers REFL in two weeks again with the professors
'The Dean and the professors gather again in two weeks.'

NB: OC-contexts are not the only cases in which a comitative can remain implicit. Poole (2015), building on observations in Rodrigues (2007), shows that the same is possible in what he calls the MODAL-MEET CONSTRUCTION:

- (32) a. John can meet at 5pm.
b. *John met at 5pm.

Poole formulates the following generalization:

- (33) A discontinuous reciprocal has an implicit *with*-argument only when embedded under a root modal. (Poole 2015: 18, (53)).

- (33) cannot straightforwardly account for the covert comitative in Fake PC, but the acceptability of (32a) suggests that the issue of a covert comitative cannot be held

¹⁶ If comitative PPs are introduced by a high ApplP (Rubinstein 2009), their status as non-core arguments potentially accounts for why they can be dropped (see Rákosi 2003, 2013, Dimiatridis 2004, Siloni 2011 for the argument status of the reciprocal *with*-PP). It does not explain, however, why this is not possible in all contexts.

¹⁷ Surprisingly, a covert comitative appears to be acceptable in a restructuring infinitive, which lacks sentential status (i). It might be, then, that speakers are more willing to accommodate a covert comitative than one might think. One should test this and provide speakers with simple finite clauses involving a covert comitative and enough context for them to potentially recover the comitative PP. Acceptability rates should be higher than in cases where the collective predicate does not license a comitative. We leave this for future study.

(i) Context: John is in love with the girl that only recently moved into the apartment one floor up. Although he frequently contacted her and asked her to go out together, so far she always refused.

²Zu treffen versucht hat John sich schon häufiger, es ist jedoch noch nie so weit gekommen. to meet tried has John REFL already often it is however yet never so far came 'John has often tried to meet, but so far it has never happened.'

against a Fake PC analysis and that more work is required on the properties and behavior of this type of predicate.

➤ We propose that **two „rescue“ mechanisms** exist in German to resolve the (apparent) mismatch found in PC:

- i) Fake PC, e.g., via a covert comitative
- ii) True PC, e.g., via Pearson's extension-mechanism over world-time-individual triplets

(34) *Potential PC constellations in German and their repair mechanisms*

	+comitative	-comitative
EC predicate	✓ covert comitative * extension	* covert comitative * extension
PC predicate	✓ covert comitative ✓ extension	* covert comitative ✓ extension

- Nevertheless, our study cannot help decide **whether [PC; +COM] in German is an instance of true PC or Fake PC**, as here, both ways of resolving the mismatch are potentially available.¹⁸

3. Landau's (2016b) Arguments Against Fake PC

- Landau (2016b) advances 3 arguments against the existence of a covert comitative – even in cases where the embedded predicate potentially licenses comitative PPs. All tests target the question of whether PRO is (semantically) singular, as predicted by the covert comitative analysis (comp. (35)).

¹⁸ An anonymous reviewer suggested that there is only one mechanism involved, True PC, and its licensing conditions are subject to parametric variation. While in English it is only triggered if the matrix predicate is an attitude predicate, in German it is also licensed if the embedded predicate is [+COM]. There is a way to test this, namely if the controller is non-third person, as in German, this has an effect on the form of the embedded reflexive pronoun. In a [PC; -COM]-sentence, the agreeing reflexive in (ia) only allows the (pragmatically) deviant reflexive reading, while the plural reflexive is compatible with a PC-reading (ib).

- (i) a. *Du_i versprichst mir also [PRO]_i dich heute abend zu küssen.
You.2.SG promise me then REFL.2.SG today evening to kiss
 - b. Du_i versprichst mir also [PRO]_i euch heute abend zu küssen.
You.2.SG promise me then you.2.PL today evening to kiss
- Intended: 'You promise that you and some contextually salient person will kiss this evening.'

While at first the data in (i) appear surprising if all of the morphological phi-features of the controller are transmitted to PRO (Landau 2000 et seq.), they are comparable to European Portuguese inflected infinitives, where PRO may also differ in number from its controller (see Landau 2016a for discussion and potential explanation). Be this as it may, it is telling that in the case of an [EC; +COM]-sentence, the situation is the exact opposite: with a 2.SG controller, the reflexive *has* to surface as *dich* (ia), while the 2.PL reflexive *euch* is fully unacceptable (iib). Note that this is exactly what one expects under a Fake PC analysis of (ii).

- (ii) a. Du_i versuchst [PRO]_i dich pro_{COMITATIVE} zu treffen.
You try REFL.2.SG to meet
 - b. *Du_i versuchst [PRO]_i euch zu treffen.
You try REFL.2.PL to meet
- 'You try to meet.'

The contrast in the form of the reflexive in (i) and (ii) confirms the claim that two independent mechanisms must be involved to accommodate the PC-reading in [PC; -COM] and [EC; +COM]-sentences in German.

(35) **True and Fake PC**

- a. John_i hoped [PRO]_i to meet in the garden]. *True PC; PRO = sem. plural*
- b. John_i hoped [PRO]_i to meet pro_{COMITATIVE} in the garden]

Fake PC; PRO = sem. singular

- In this section, we discuss the applicability of his tests to German, in particular to the test items of the [EC; +COM]-class.
- Some comments are provided on the French data advanced by Landau.

3.1 Ability to bind singular reflexives

- If PRO is singular, it should bind emphatic singular reflexives, contrary to fact.

- (36) a. *The team – that is Peter_i's team - met on Thursday himself.
- b. Peter_i met with them on Thursday himself.

(37) *Peter_i would like to meet on Thursday himself.

- PRO patterns with collective nouns in its inability to license singular reflexives. This suggests that PRO is semantically plural.
- In favor of PC, and against fake PC.

German

- Applying this test to German is more difficult. This is because the collective predicates required are inherently reflexive. What would be needed is the additional modifier *selbst* 'self'. But this is also compatible with collective nouns:

(38) Das Team traf sich nach der Pleite selbst um das Spiel zu analysieren.
the team met REFL after the loss self to the game to analyze
'After the loss, the team met itself to analyze the game.'

- Yet, in a context where *selbst* is contextually forced to modify a singular entity, the result appears marked, but not clearly unacceptable:

(39) **Context:** Prince James generally sends representatives to state meetings, simply because he doesn't enjoy those meetings at all. This time, however, he is supposed to meet the French president in a very urgent business – and his mother forces him to go to this meeting himself.

Diesmal zwingt die Mutter James, sich selbst ??(mit dem Präsidenten) zu treffen.

This time forces the mother James REFL self with the president to meet
'This time, mother forces James to meet (with the president) himself.'

French¹⁹

¹⁹ Data courtesy Fabienne Martin.

- Recall that French is argued to exhibit Fake PC only (Sheehan 2014a). Landau points out that this is implausible given that French behaves like English wrt the licensing of singular emphatic reflexives (40).

(40) Jean a dit à Marie qu'il préférerait ne pas se réconcilier
John has said to Mary that-he preferred NEG not to.reconcile
(*lui-même) ce soir.
himself this night
'John said to Mary that he preferred not to reconcile (*himself) tonight.'
(Landau 2016b: 8, (17a))

- It has to be noted, however, that *lui-même*, unlike English *himself* in (40), is compatible with collective nouns, as well:

(41) Finalement, le couple s'est réconcilié lui-même.
Finally the couple REFL-is reconciled himself
'Finally, the couple reconciled (*himself).'

- It is thus plausible to assume that the unacceptability of *lui-même* in (40) is semantic in nature (maybe due to the difficulty of generating alternatives), rather than a consequence of the properties of PRO. This is because even under a true PC analysis, where PRO should pattern with collective nouns, the ungrammaticality of (40) is unexpected.

- Landau (p.c.) points out that (41) only shows that *lui-même* can take a third neuter antecedent. In (40), however, it is supposed to semantically target *Jean*, which is not accessible if PRO is a group denoting NP, in line with a true PC analysis.

- Be this as it may, this would predict that *lui-même* should be acceptable in (40) if it targets the group denoting NP as in (41).

3.2 Licensing of secondary predicates

- If PRO is singular, it should license secondary predicates that range over singular individuals, contrary to fact.

(42) a. Peter will meet with Elaine as a free man tomorrow.
b. *The couple will meet as a free man tomorrow.

(43) *Peter told Elaine that he expected to meet as a free man the following day.

- PRO patterns with collective nouns wrt the licensing of singular-oriented secondary predicates.
- This is in favor of a true PC-analysis of (43), and against a treatment via Fake PC.

German

(44) a. Peter wird sich als Einziger des Teams mit der Bundeskanzlerin treffen.
Peter will REFL as only.one of.the team with the chancellor meet
'Peter will meet with the chancellor as the only one of the team.'
b. *Das Paar wird sich als Einziger treffen.
the couple will REFL as only.one meet
'The couple will meet as the only one.'

(45) **Context:** All soccer players are having fights with their wives because they always come home drunk. Most of the players do not care, except Peter.

a. Peter versprach, sich als Einziger des Teams bald zu versöhnen.
Peter promised REFL as only.one.of.the team soon to make.up
'Peter promised to be the only one of the team to make up soon.'

Context: All soccer players must not meet their wives before the final match. Although everyone tried to circumvent the order, only Peter managed to meet his wife.

b. Peter gelang es, sich (?als Einziger des Teams) zu treffen.
Peter managed it REFL as only.one.of.the team to meet

➢ The data in (45) suggest that Fake PC exists and is even an available mechanism in the case of [PC; +COM]-sentences. The reliability of the given judgments should be tested experimentally, however.

French

- Landau shows, again, that French patterns with English in disallowing a secondary predicate that ranges over singular entities:

(46) Jean a dit à Marie qu'il était content de se promener ensemble
John has said to Mary that.he was happy to-have-a-walk together
enfin, (*en homme libre).
finally as man free
'John told Mary that he was happy to finally have a walk together (*as a free man).'

- Although my informant shares the judgment in (46), there seems to be something about the embedded predicate that disallows the secondary predication. Consider the data in (47):

(47) a. Le couple s'est réconcilié, (*en bon ami).
the couple REFL-is reconciled in good friend
'The couple reconciled (*as a good friend).'

b. Peter s'est réconcilié avec Marie, (en bon ami).
Peter REFL-is reconciled with Mary in good friend
'Peter has reconciled with Mary (as a good friend).'

c. Jean a dit à Marie qu'il espérait se réconcilier, en bon ami.
John has said to Mary that-he hopes to.reconcile in good friend
'John has told Mary that he hopes to reconcile with a contextually salient person as a good friend.'

- The secondary predicate in (47c), in its sentence final position, is unlikely to be construed 'upstairs', but rather modifies the embedded subject. This is further supported by (48):

(48) Marie a dit à Jean qu'elle espérait se réconcilier demain en
Mary has said to Jean that-she hopes to.reconcile tomorrow in
robe de mariée.

wedding.dress

'Mary has told Jean that she hopes to reconcile tomorrow in the wedding dress.'

- (47) & (48) seem to support, rather than challenge, a covert comitative analysis.

3.3 Licensing of *separately*

- A plural comitative phrase licenses the adverb *separately*, while this is not true of the non-comitative reciprocal construal.
- (49) a. Mary met *separately* with the dean and the chair.
b. *Mary's department met *separately*. (on the NP-dependent reading)
- (50) Mary told the chair and the dean that she prefers to meet (**separately*) before Christmas.
- PRO patterns with collective nouns wrt the licensing of singular-oriented secondary predicates.
- In favor of true PC, and against Fake PC.

German

- The test doesn't translate easily into German. The only phrase semantically equal to *separately* is *unabhängig von einander*, which sounds pretty marginal even in the context of an overt comitative:
- (51) ^{??}Maria traf sich unabhängig voneinander mit dem Papst und der Kanzlerin.
Mary meet REFL independent of.each.other with the pope and the chancellor
'Mary met *separately* with the Pope and the chancellor.'

General

- Be this as it may, the validity of this test is doubtful. This is because it is not clear that an implicit argument (which the covert comitative in the proposed analysis ultimately is) can have plural reference.

4. Conclusions

- **First experimental investigation of Partial Control** in German.
- The task was to answer the following questions:
 - Does German allow PC at all? – **Yes**.
 - Does German provide evidence for the EC/PC split? – **Yes**.
 - Does German pattern with European Portuguese in only allowing fake PC, or does it behave like English in exhibiting 'true' PC? – **Neither nor; German allows both Fake PC and true PC:**

(52)		PC (-reading)
	3	
	True PC	Fake PC (=covert comitative)
	English	French; EP uninflected infinitives
	German	German

- With respect to acceptability of PC-type construals, both **matrix and embedded verb type proved to be significant factors**. If the matrix predicate is a PC predicate and the embedded one licenses comitatives, the sentence is highly acceptable. The combination of an EC predicate with a non-comitative embedded predicate appears on the lower end of the acceptability-scale.
 - This distribution of the acceptability ratings is expected if we assume that there are **two mechanisms to resolve the number mismatch**: covert comitative (Sheehan 2014a, Boeckx, Hornstein & Nunes 2010, Hornstein 2003) or semantic extension (which a.o. things depends on the matrix predicate being attitudinal; see Pearson 2013, 2015). Where both mechanisms fail, the mismatch cannot be resolved and the sentence is judged as deviant.
 - Cases where only one of the two conditions is satisfied ([PC; -COM] and [EC; +COM]) are rather more acceptable, but less so than [PC; +COM], where both conditions are satisfied.
- Our results argue against any approach that attempts to downplay the significance of true PC as a grammatical phenomenon of its own:
 - For both Bower's (2008) metonymy approach, as well as Duffley's pragmatic account of PC, the significant difference between sentences of the [EC; -COM] and the [PC; -COM] groups are hard to explain, as both sentence types were provided with the same elaborate context.
- Necessity for experimental investigation of grammatical phenomena whose language-internal, as well as cross-linguistic status is unclear.
 - Future studies such as ours could be used to investigate the question whether, e.g., English really differs from German in lacking the covert comitative mechanism.²⁰
 - Depending on the language, additional factors, such as the case marking of PRO, would have to be added to the experimental design (as, e.g., for Russian, where a PC-reading depends on PRO being (dative) case-marked; see Landau 2008, Sheehan 2014b).

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²⁰ It might be that English patterns like German in making both mechanisms available. Poole points out that EC predicates can give rise to a PC-reading only if the embedded predicate potentially licenses comitatives (i).

- (i)
- John can meet at 5pm.
 - John can talk at 5 pm.
 - *John can gather tomorrow.
 - *John can disperse next week.

While in all of these cases, the matrix predicate is a modal, it would remain to be tested if the same holds for (other) EC-predicates like *try*, *manage*, etc.

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