

On Partial Control in German

Marcel Pitteroff, Artemis Alexiadou & Silke Fischer
Universität Stuttgart
marcel@ifla.uni-stuttgart.de
artemis@ifla.uni-stuttgart.de
silke.fischer@ifla.uni-stuttgart.de

0. Outline

- Section 1: Partial Control
- Section 2: An Experimental Investigation of Partial Control in German
- Section 3: Outlook: Two Ways of Choosing between True and Fake PC
- Section 4: Conclusion

1. Partial Control

1.1 The Phenomenon

- Typical (complement) control sentences involve referential identity between controller and the covert infinitival subject.¹
- (1)
 - a. Peter_i decided [PRO_{i/*j} to read the book].
 - b. Peter_i persuaded Hans_j [PRO_{*i/j/*k} to read the book].
 - Following Williams (1980), this type of control is called **obligatory control (OC)**, to distinguish it from cases where PRO may be referentially independent (Non-obligatory Control (NOC)), as in (2).
- (2) John_i thinks that [PRO_{ARB} shaving oneself] is important.
 - This talk: focus on OC only.
- 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 (3).
- (3)
 - a. Yesterday, *the chair / the committee gathered at 6.
 - b. Yesterday, *Bill / the committee gathered without a concrete agenda.
 - If OC requires 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 (4).
- (4)
 - 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 (4), 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)**

¹ 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.

- Some (alleged) properties of PC:
 - qualifies as **OC** (Landau 2000, 2004, 2008, 2013; Pearson 2013; a.o.; see Wurmbrand 2002 for a different view)
 - the mismatch is in **semantic number** only. Syntactically, PRO in (4) is singular, e.g., it does not license plural anaphors (Landau 2000).²
- (5) 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, 2014; van Urk 2010; Grano 2012; Pearson 2013; White & Grano 2013).
- (6) 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:
- (7) *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:
- (8) *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,

1.2 Two ways of treating PC in the literature³

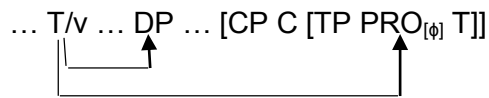
- (i) Landau (2000, 2004, 2008, 2013): correlation between acceptability of PC and a semantically tensed infinitival complement (cf. (9), (10)).
- (9) a. *John managed to read the book tomorrow.
b. *John managed to gather at 6.
- (10) a. John preferred to read the book tomorrow.
b. John preferred to gather at 6.
- leads him to propose a **syntactic difference** between the two control types (what he calls *PRO-control* and *C-control*)

² 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 2015).

³ 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; Pearson 2013; Landau 2015 for other analyses in this vein), the other argues that there is no mismatch and PC is the epiphenomenon of something else (see also Bowers 2010).

(11) *Landau's (2000) Agree-model of Control*

PRO-control



C-control⁴



- 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.

• **Some issues for Landau's approach to PC**

- White & Grano (2013) show that there is a substantial amount of gradability (not reducible to inter-speaker variation) in the tolerance for PC as a function of the choice of embedding predicate.
- Pearson (2013): the correlation between tensed infinitive and acceptability of PC fails in both directions.

(12) a. *Yesterday, John enjoyed washing the dishes tomorrow. [untensed inf.]
 b. John_i enjoyed [PRO_{i+} assembling in the hall]. [PC possible]
 (Pearson 2012: 316; (47a) & (48a))

(13) a. Today, John deserves to go to the movies tomorrow. [tensed inf.]
 b. *John_i deserves [PRO_{i+} to assemble in the hall]. [PC not possible]

➤ **Neither one of these two facts are expected**

(ii) Hornstein (2003), Boeckx, Hornstein & Nunes (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 licenses **comitative PPs** (*with*-PPs introducing a 'partner'; cf. Rákosi 2003).⁵

(14) a. *The chair was mutually supporting with Bill.
 b. *The chair left with Bill.
 c. The chair met with Bill.

(15) a. *The chair hoped to be mutually supporting.
 b. *The chair hoped to leave.
 Intended: 'The chair hoped that he and other people would leave.'
 c. The chair hoped to meet.

(based on BHN 2010: 185)

⁴ A tensed C-head, it is assumed, may optionally come with [Φ]-features.

⁵ Bowers (2010) even 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.

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

(16) *Fake PC*

[The chair_i hoped [PRO_i to meet pro_{COMITATIVE} at 6.]]

- Sheehan (2014) argues that (16) is the correct analysis for PC in a number of Romance languages: In European Portuguese, for example, **only predicates that license comitatives can participate in PC**⁶ (cf. (17); *reconciliar-se* ‘to make up’ is comitative; *escrever-se* ‘to write with s.o.’ is not).

- (17) 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 2014, (24) & (27))

- **Some issues for the ‘fake PC’ analysis**

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

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

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.

- **Our contribution**

- 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.

⁶ 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, 2013 for details).

- Answer the question at the beginning of this section by testing
 - i) whether German allows PC at all.
 - ii) whether German provides evidence for the EC/PC split.
 - iii) whether German patterns with European Portuguese in only allowing fake PC or whether it behaves like English in exhibiting 'true' PC.

2. An experimental investigation of PC in German

2.1 The study

- **Study Design:** Online Judgment Questionnaire (Qualtrics)
 - **instructions:** participants were asked to rate 40 sentences according to their degree of acceptability (in the given context; see *test items*).
 - **ratings:** continuous 1-7 scale of 'acceptability' (1 = unacceptable; 7 = fully acceptable)
 - **organization:** 2 questionnaires à 40 sentences each (15 target items and 25 fillers).
 - **language:** German
 - **Participants:** 102 German native speakers
 - **Test items:**
 - 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 2013, Landau 2015), both target and filler sentences were provided with a context.
- (19) *Example of a test 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.'
- **Target stimuli:** included two variables: matrix predicate; embedded predicate
 - **Matrix predicate:** 4 EC predicates (from the list in (7))
11 PC predicates (from the list in (8))

- **Embedded predicate:**^{7,8} 11 predicates that license comitatives
11 predicates that do not license comitatives

NB: 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.

➤ Target stimuli fall into the following **four categories:**

(20) *Target stimuli divided into 4 categories*

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

NB: One sentence from the [PC; -com] category (*behaupten + anlächeln*) had to be excluded due to experimental error.

- Target stimuli were distributed across two questionnaires in a way such that no participant saw the same predicate twice.

2.2 Results

• Effect of control verb type

- mean rating for the [EC; -com]-condition was significantly **worse than** the one for [PC; -com] with the same embedded predicate.

- (21) a. Harald hat angefangen, sich zu begrüßen. [EC; -com]
H. has begun refl to greet
'Harald has begun to greet each other.' **means: 1,73**
- b. Silvy beschließt, sich wieder zu begrüßen. [PC; -com]
S. decides refl again to greet
'Silvy decides to greet each other again.' **means: 4,4**

(22) *Raw means [EC; -com]; [PC; -com]*

	begrüßen	anlächeln	zuspielen	ggs. zuhören
anfangen (EC)	1,73	x	x	x
vermeiden (EC)	x	2,51	x	x
versuchen (EC)	x	x	2,57	x
zwingen (EC)	x	x	x	3,56
beschließen (PC)	4,4	x	x	x
behaupten (PC)	x	N/A	x	x
befürchten (PC)	x	x	4,01	x
hassen (PC)	x	x	x	4,6

⁷ All embedded predicates were collective and allowed a semantically plural, but syntactically singular subject.

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

⁸ We did not distinguish between comitative phrases and discontinuous phrases (or adjunct and argument comitatives, cf. Rákosi 2003, 2012, Siloni 2011). The relevant point for us was the possibility of adding a referent via a *with*-PP. All non-comitative predicates disallowed this (see Wiemer & Nedjalkov 2007).

- 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).

• **Effect of embedded verb type**

- mean rating for the **[EC; -com]**-condition was significantly **worse than** the means for **[EC; +com]** with the same matrix predicate.

- (23) a. Hans versucht, sich den Ball zuzuspielen. [EC; -com]
 H. tries refl the ball pass
 'Hans tries to pass the ball to each other.' **means: 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 until Christmas.' **means: 5,81**

(24) *Raw means [EC; -com]; [EC; +com]*

	anfangen	vermeiden	versuchen	zwingen
begrüßen (-com)	1,73	x	x	x
anlächeln (-com)	x	2,51	x	x
zuspielen (-com)	x	x	2,57	x
ggs. zuhören (-com)	x	x	x	3,56
beraten (+com)	3,87	x	x	x
versammeln (+com)	x	5,75	x	x
versöhnen (+com)	x	x	5,81	x
treffen (+com)	x	x	x	5,46

- if the **embedded predicate is a comitative, acceptability increases.**⁹

- Suggests that German has fake PC.

• **True PC**

- The results presented in (22) already suggest that German has true PC. This is supported by the fact that the other instances of true PC show comparable mean ratings.

- (25) a. Hans bedauert es, sich damals auseinandergelebt zu haben. [PC; -com]
 H. regrets it refl then drift.apart to have
 'Hans regrets having drifted apart.' **means: 4,73**
- b. Peter würde es bevorzugen, sich jetzt zu küssen. [PC; -com]
 P. would it prefer refl now to kiss
 'Peter would prefer to kiss now.' **means: 4,82**

⁹ We have no account of the lower degree of acceptability with *anfangen*. We would like to note, however, that this matches the results of White & Grano's (2013) study, where *begin* also gets the lowest scores with respect to PC-acceptability.

(26) *Raw means for [PC; -com]*

matrix predicate; embedded predicate	means
hassen; ggs. zuhören	4,6
bedauern; auseinanderleben	4,73
beabsichtigen; umarmen	4,12
planen; sich ggs. verprügeln	3,88
vorgeben; umarmen	3,81
vorschlagen; ggs. unterstützen	6,57
beschließen; begrüßen	4,4
bevorzugen; küssen	4,82
hoffen; liebkosen	2,83
befürchten; zuspielen	4,01

- In general, **the rating for [PC; -com] ranges somewhere between 4-5** (with much inter- and intraspeaker variation), which is still far from being “hardly acceptable”, as Stiebels claims.
- Means for **[EC; +com]** ($\emptyset \approx 5,2$) are generally somewhat **better** than the ones for **[PC; -com]** ($\emptyset \approx 4,4$; comp. (24) to (26)).
- Since the test was not designed to investigate the effect a particular PC predicate has on acceptability, we have to leave this issue for future research (see White & Grano 2013 for such a study for English).¹⁰

NB: Even though *vorgeben* ‘to pretend’ received the lowest ratings in this condition, true PC with this predicate is not excluded (pace Pearson 2013, and in line with White & Grano 2013).

• **The ambiguous class: [PC; +com]**

- Of all four classes, sentences of the [PC; +com]-condition received the highest ratings.

- (27) a. 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.’ **means: 4,01**
- b. 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.’ **means: 5,77**
- (28) 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.’ **means: 5,75**
- 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.’ **means: 6,36**

¹⁰ Interestingly, our results for true PC largely match the results from White & Grano’s (2013) study. The only difference can be found for the verbs *beabsichtigen* ‘to intend’ and *beschließen* ‘to decide’, which received (significantly) lower ratings in their study than in ours.

(29) *Raw means for [PC; +com]*

matrix; embedded predicate	Means
befürchten; verkrachen	5,77
vorgeben; vertragen	4,93
hoffen; versöhnen	5,34
beschließen; beraten	5,37
bevorzugen; austauschen	6,41
vorschlagen; versammeln	6,36
behaupten; zusammen vorbereiten	5,84
hassen; gemeinsam singen	6,55
beabsichtigen; gemeinsam erledigen	5,66
bedauern; treffen	6,0
vorhaben; vertragen	6,12

2.3 Statistical Analysis¹¹

- We ran a **Linear Mixed Effects** (LME) model with **participants and items as random variables**. In the following, we report the raw ratings.¹²

i) **Effect of control verb type** (EC vs. PC) is statistically **significant**

([F(1,24.78)=13.8, $p < 0.01$])

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

ii) **Effect of embedded verb type** (+/- com) is statistically **significant**

([F(1,24.91)=40.4, $p < 0.01$])

- Sentences with an embedded **comitative** predicate were rated **better** than sentences with an embedded **non-comitative** predicate.

iii) **Interaction** of the two factors **approaches significance**

([F(1,25.83)=2.9, $p = 0.09$])

- Numerically, the difference between [EC; -com]; [EC; +com] was bigger than the difference between [PC; -com]; [PC; +com].

iv) **Tukey test:** Sorting the categories by means provides the following result (higher numbers = higher acceptability; categories not connected by the same letter are significantly different)

(30)

Category		Least Sq Mean
[PC; +com]	A	5.8616189
[EC; +com]	A B	5.2327284
[PC; -com]	B	4.3785830
[EC; -com]	C	2.6247005

¹¹ We would like to thank Jeannique Darby for her help with the statistical analysis.

¹² We also ran the model using z-score normalized ratings. The pattern of effects did not differ.

- [PC; +com] exhibits the highest degree of acceptability; [EC; -com] the lowest
- [PC; -com] and [EC; +com] are still significantly better than [EC; -com]
- There is a significant difference between [PC; +com] and [PC; -com] (→ embedded verb type-effect)
- [EC; +com] is closer in acceptability to [PC; +com] than to [PC; -com].

2.4 General Discussion

- The **EC-PC split exists in German**: embedding a non-comitative predicate below an EC-predicate with a semantically singular subject leads to unacceptability. This is not the case if the matrix predicate is a PC-predicate.
 - German, unlike Romance languages and like English, has **true PC**.
 - Although somewhat marked, the acceptability judgements for instances of true PC were in general positive.
→ Stiebels' claim that German PC is rare or non-existent could not be confirmed.
 - Sheehan (2014) 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.
 - In German, by contrast, **fake PC** cross-cuts the type of matrix predicate.
 - We remain silent on the precise nature of the covert comitative. Further, we have nothing to contribute to the question concerning the licensing conditions of this element: most (if not all) comitatives in our study disallow a covert comitative in a simple finite context:¹³
- (31) a. Der Dekan schlägt vor, sich in zwei Wochen erneut zu versammeln.
the dean proposes refl in two weeks again to gather
'The Dean proposes 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.'
- The observation that numerically, **[EC; +com] is closer to [PC; +com]** than to [PC; -com] suggests that the **same mechanism** is involved to resolve the number mismatch.
 - Nevertheless, our study could not decide **whether [PC; +com] in German is an instance of true or fake PC**, as both ways of resolving the mismatch (whatever it ends up to be in the case of true PC) are available.¹⁴

¹³ If comitative PPs are introduced by a high ApplP (Rubinstein 2006), their status as non-core arguments potentially accounts for why they can be dropped (see Rákosi 2003, 2012, 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.

¹⁴ Two possibilities of how to decide this issue are discussed in Section 3.

- Although true PC was shown to be acceptable, **no single speaker categorically accepted or rejected all true PC sentences**. We believe that this would be unexpected if the mechanism that resolves the number mismatch in true PC was syntactic, as proposed in Landau (2000, 2004, 2008, 2013).¹⁵
 - Speaker variation might be expected if true PC involves a **purely semantic rescue mechanism**, which depends on a **plurality of factors**. Pearson (2013) provides such a semantic approach to PC, showing that the availability of it depends on, e.g., the type of matrix predicate (attitude/non-attitude; see also Landau 2014), certain temporal and aspectual properties of the infinitival complement, etc; (see White and Grano 2013 for some refinements).
 - Two „rescue“ mechanisms exist in German to resolve the mismatch found in PC:
 - i) a covert comitative
 - ii) Pearson’s extension-mechanism over world-time-individual triplets

(32) *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

3. Outlook: Two Ways of Choosing between True and Fake PC

1) In German, a **discontinuous reciprocal with two comitatives is unacceptable** (33).

(33) *Der Polizist trifft sich mit dem Angeklagten mit mir.
the policeman meets refl with the accused with me
‘The policeman meets with the accused with me.’

- As Boeckx, Hornstein & Nunes (2010) point out for English, a covert comitative approach to PC would predict that **only an EC reading is possible where an overt comitative PP is present**. This is clearly borne out for the cases of [EC; +com].

(34) Der Polizist versucht PRO sich bald mit dem Angeklagten zu treffen.
the policeman tries PRO refl soon with the accused to meet
‘The policeman tries to meet with the accused soon.’

- PRO in (34) cannot be interpreted as the policeman and someone else (i.e., the PC reading), but only as ‚the policeman‘ (i.e., the EC reading).
- **In the context of [PC, +com] with an embedded overt comitative, a PC reading seems to be not altogether ruled out:**

(35) Der Polizist hofft [PRO sich bald mit dem Angeklagten zu treffen].
the policeman hopes PRO refl soon with the accused to meet
‘The policeman hopes to meet with the accused soon.’

¹⁵ Landau (2015) proposes that the PC reading arises from a covert associative morpheme that is attached to the embedded verb. Arguably, the varying judgements for different cases of true PC, as well as the gradability found in White & Grano’s (2013) study, are still unexpected: why is a speaker 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?

- (35) seems acceptable in a context where the policeman hopes that he and someone else will meet with the accused (i.e. the PC reading).
 - If (35) had the intended interpretation, this would be evidence that **in a [PC, +com] context, true PC is at least a possibility.**

2) Dimiatridis (2004) argues that the Greek discontinuous reciprocal in (36b) cannot be derived from the simple reciprocal in (36a).

- (36) a. O Yanis, o Nikos kje I Maria tsakothikan. **Simple Recipr.**
The John the Nick and the Maria argued.Rcp
'John, Nick and Maria argued.'
- b. O Yanis kje o Nikos tsakothikan me ti Maria. **Disc. Recipr.**
the John and the Nick argued with the Maria
'John and Nick argued with Maria.'

(Dimiatridis 2004: 3, (13))

- The two constructions are **not semantically equivalent** (see also Siloni 2011): while (36a) is true in a context where John argued with Nick, (36b) is not.
- The same is true for German:

- (37) a. Hans, Maria und Peter haben sich gestritten.
Hans Mary and Peter have refl argued
'Hans, Mary and Peter argued.'
✓ Hans vs. Mary
✓ Hans & Mary vs. Peter
- b. Hans und Maria haben sich mit Peter gestritten.
Hans and Maria have refl with Peter argued
'Hans and Mary argued with Peter.'
✗ Hans vs. Mary
✓ Hans & Mary vs. Peter

- **Prediction:** Instances of **fake PC should pattern with (37b)**, rather than (37a).

- (38) **Context:** Hans, Mary and Peter are invited to a talk show. In their contracts, it is said that they only get money if everyone argues with everyone else.

Hans und Maria ist es gelungen, sich zu streiten.
Hans and Maria is it managed refl to argue
'Hans and Mary managed to argue.'

Question: Given the context and based on the sentence above, is it possible that they did they get their money?

- If the covert comitative analysis of [EC; +com]-cases was correct, the sentence in (38) should entail that they did **not** get their money.

NB: This might be difficult to judge, since the normal reciprocal meaning, in which only Hans and Mary are involved, is dominant (if not the only available one) – which would also entail that they did not get their money.¹⁶

¹⁶ If a PC-reading is really blocked in (38), this supports the treatment of the covert comitative as a repair strategy: in cases where no mismatch arises due to the presence of a plural controller, the simple reciprocal reading is strongly preferred over one that requires some repair mechanism.

- If this test works (see NB above), it can also be used to determine the repair mechanism involved in [PC; +com]-cases.

(39) **Context:** Same as in (38).

Hans und Maria haben es gehasst, sich in der Talkshow zu streiten.
Hans and Maria have it hated refl in the talk show to argue
'Hans and Mary hated it to argue in the show.'

Question: Given the context and based on the sentence above, is it possible that they did get their money?

- Again, if [PC; +com] obligatorily involved a covert comitative, the answer to the question above should be **negative**.

4. Conclusions

- We provided the **first large scale experimental investigation of Partial Control** in German.
- The task was to answer the following questions:
 - i) Does German allow PC at all?
 - ii) Does German provide evidence for the EC/PC split?
 - iii) Does German pattern with European Portuguese in only allowing fake PC, or does it behave like English in exhibiting 'true' PC?
 - Answers to i) and ii): Yes.
 - Answer to iii): neither nor; **German allows both fake PC and true PC.**
- 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 other end of the acceptability-scale
 - This distribution of the acceptability ratings is expectable: there are **two mechanisms to resolve the number mismatch**: covert comitative (Sheehan 2014, Boeckx, Hornstein & Nunes 2010, Hornstein 2003) or semantic extension (which a.o. things depends on the matrix predicate being attitudinal; see Pearson 2013). Where both mechanisms fail, the mismatch cannot be resolved and the sentence is ungrammatical.
 - Cases where only one of the two conditions is satisfied ([PC; -com] and [EC; +com]) are still acceptable, but less so than [PC; +com], where both conditions are satisfied.
 - The fact that there is a **high degree of speaker variation** in the context of true PC (i.e. no speaker completely accepted or rejected all such cases), undermines the likelihood of a purely syntactic analysis of PC.

References

- Boeckx, Cedric, Norbert Hornstein & Jairo Nunes. 2010. *Control as Movement*. Cambridge: Cambridge University Press.
- Bowers, John. 2008. On Reducing Control to Movement. *Syntax* 11, 125-143.
- Dimiatriadis, Alexis. 2004. *Discontinuous Reciprocals*. Manuscript, Utrecht Institut of Linguistics OTS.
- Grano, Thomas. 2012. Control and Restructuring at the Syntax-Semantics Interface. Ph.D. dissertation, University of Chicago.
- Hornstein, Norbert. 1999. Movement and Control. *LI* 30: 69-96.
- Hornstein, Norbert. 2003. On Control. In Randall Hendrick (ed.), *Minimalist Syntax*, 6-81. Oxford: Blackwell.
- Landau, Idan. 2000. *Elements of Control: Structure and Meaning in Infinitival Constructions*. Dordrecht: Kluwer.
- Landau, Idan. 2004. The Scale of Finiteness and the Calculus of Control. *NLLT* 22, 811-877.
- Landau, Idan. 2008. Two routes of control: evidence from case transmission in Russian. *NLLT* 26: 877-924.
- Landau, Idan. 2013. *Control in Generative Grammar. A Research Companion*. Cambridge: Cambridge University Press.
- Landau, Idan. 2014. *A Two-Tiered Theory of Control*. Manuscript.
- Landau, Idan. 2015. Agreement at PF: an Argument from Partial Control. to appear in *Syntax*.
- Modesto, Marcello. 2010. What Brazilian Portuguese Says about Control: Remarks on Boeckx & Hornstein. *Syntax* 13: 78-96.
- Pearson, Hazel. 2013. *The Sense of Self: Topics in the Semantics of De Se Expressions*. Ph.D. dissertation, Harvard University.
- Rákosi, György. 2003. Comitative arguments in Hungarian. In W. Heeren et al. (eds.), *Uil-OTS Yearbook 2003*, 47-57. Utrecht Institute of Linguistics OTS.
- Rákosi, György. 2013. Down with obliques? In Tracy Holloway King & Valeria de Paiva szerk (eds), *From Quirky Case to Representing Space: Papers in Honor of Annie Zaenen*, 127-138. Stanford: CSLI.
- Rubinstein, Aynat. 2009. Groups in the semantics of reciprocal verbs. In A. Schardl et al. (eds.), *Proceedings of NELS 38*, 269-282. Amherst, MA: GLSA.
- Sheehan, Michelle. 2012. A New Take on Partial Control: Defective Thematic Intervention. *Cambridge Occasional Papers in Linguistics* 6: 1-47.
- Sheehan, Michelle. 2013. Portuguese, Russian and the Theory of Control. In Hsin-Lun Huang et al. *Proceedings of NELS 43*, 115-126. Amherst, MA: GLSA.
- Sheehan, Michelle. 2014. Partial Control in Romance Languages: the Covert Comitative Analysis. In Lahousse, Karen and Stefania Marzo (eds.), *Romance Languages and Linguistic Theory 2012: Selected papers from 'Going Romance' Leuven 2012*, 181-198.
- Siloni, Tal. 2011. Reciprocal verbs and symmetry. *NLLT* 30.1, 261-320.
- Stiebels, Barbara. 2007. Towards a typology of complement control. In Barbara Stiebels (ed.), *ZAS Papers in Linguistics 47. Studies in complement control*, 1-80.
- Stiebels, Barbara. 2015. Control. In Tibor Kiss & Artemis Alexiadou (eds.), *Syntax – theory and analysis. An international handbook (HSK 42)*, 412-446. Berlin: de Gruyter.
- van Urk, Coppe. 2010. *On Obligatory Control: A Movement and PRO approach*. Manuscript, University of Utrecht.
- White, Aaron Steven & Thomas Grano. 2013. An Experimental Investigation of Partial Control. In U. Etxeberria et al. (eds.), *Proceedings of Sinn und Bedeutung* 18, 469-486.
- Wiemer, Björn, and Vladimir P. Nedjalkov. 2007. Reciprocal and reflexive constructions in German. In V. Nedjalkov (ed.), *Reciprocal Constructions*. Vol. 2. Part.2, 455-512. Amsterdam: John Benjamins.
- Wurmbrand, Susi. 2002. Syntactic vs. semantic control. In J.-W. Zwart and W. Abraham (eds.), *Studies in comparative Germanic syntax: Proceedings of the 15th Workshop on Comparative Germanic Syntax*, 93-127. Amsterdam: John Benjamins.