

# Psych Verbs and Control into Subject Clauses in German

Silke Fischer & Marcel Pitteroff  
(University of Stuttgart)

GG5 42, University of Leipzig  
October 22, 2016

## 0. Outline

Section 1: The Empirical Observations in a Nutshell  
Section 2: A Closer Look at Simple Sentences (Scenario A)  
Section 3: The Role of Embedding and Extraposition (Scenario B + C)  
Section 4: Parallels to Backward Binding  
Section 5: Towards an Analysis  
Section 6: Alternative View  
Section 7: Outlook and Data Questions  
Section 8: Summary

## 1. The Empirical Observations in a Nutshell

*The data:*

- (i) scenario A: control into infinitival subject clauses with object experiencer (OE) verbs as matrix predicate
- (ii) scenario B: what happens if these data are embedded?
- (iii) scenario C: what happens if the infinitival clause inside the embedded clause is extraposed?<sup>1</sup>

*Scenario A: simple sentences with OE verbs and infinitival subjects*

*Claim:*

- Control in subject clauses of OE verbs involves obligatory control (OC).
- Test: arbitrary control is excluded.<sup>2</sup>

- (1) a. [PRO<sub>1/\*2</sub> to win the prize] would thrill me<sub>1</sub>.  
b. \*[PRO<sub>arb</sub> die Wände mit Graffiti zu besprühen] ärgert Peter.  
the walls with graffiti to spray annoys Peter  
'It annoys Peter that people spray graffiti on the walls.'

(cf. Stiebels 2007:11)

*Discussion in the literature:*

This observation has been made before for English and German; cf. Stiebels (2007, 2015). Apart from this, these facts seem to have received little attention in the literature (in contrast to scenario B/C).

---

<sup>1</sup>While it has been argued that extraposition has an effect in the case of embedding (cf. Grinder 1970; Landau 2001, 2010), no difference has been observed in the case of simple sentences, i.e. scenario A (cf. Landau 2001, Stiebels 2007, example (2) and (12) below). Therefore, scenario A plus extraposition is not considered as an extra scenario.

<sup>2</sup>We follow the standard assumptions that long distance (LD) control and arbitrary PRO (PRO<sub>arb</sub>) are licensed under the same conditions and indicate non-obligatory control (NOC). In the case of simple sentences, LD control can obviously not be tested.

*Note:*

As mentioned in footnote 1, extraposition does not have an effect on the interpretation of PRO; OC is retained.

(2) *Simple sentences with OE verb plus extraposition:*

- a. It would thrill me<sub>1</sub> [PRO<sub>1/\*2</sub> to win the prize. (cf. Stiebels 2007:11)
- b. \*It amused John<sub>1</sub> [PRO<sub>arb</sub> to praise him<sub>1</sub>]. (cf. Landau 2010:104)
- c. \*Es ärgert Peter, [PRO<sub>arb</sub> die Wände mit Graffiti zu besprühen].  
it annoys Peter the walls with graffiti to spray  
'It annoys Peter that people spray graffiti on the walls.'

*Scenario B: complex sentences with embedded OE verbs and non-extraposed infinitival subjects*

*Claim:*

- Under embedding, scenario A yields non-obligatory control (NOC).
- Test: long distance (LD) control is available in these cases.

- (3) a. John said that [PRO<sub>1</sub> making a fool of herself<sub>1</sub> in public] disturbed Sue<sub>1</sub>.  
b. John<sub>1</sub> said that [PRO<sub>1</sub> making a fool of himself<sub>1</sub> in public] disturbed Sue.  
(cf. Landau 2001:112, citing Grinder 1970)

*Discussion in the literature:*

Although it is usually not contrasted with scenario A, data of this type have been discussed before; cf. Grinder (1970), Landau (2001, 2010), a.o. The focus there is on the contrast between extraposed vs. non-extraposed subject clauses in the embedded clause; cf. scenario C.

*Scenario C: complex sentences with embedded OE verbs and extraposed infinitival subjects*

*Discussion in the literature:*

In the literature, it has been claimed that extraposition has an effect. It has been argued that extraposing the subject clause in the embedded clause yields OC (recall that without extraposition we get NOC); cf. (4).

- (4) a. John said that it disturbed Sue<sub>1</sub> [PRO<sub>1</sub> to make a fool of herself<sub>1</sub> in public].  
b. \*John<sub>1</sub> said that it disturbed Sue [PRO<sub>1</sub> to make a fool of himself<sub>1</sub> in public].  
(cf. Landau 2001:112, citing Grinder 1970)

*Our claim:*

- In German, extraposition does not have an effect on these data, i.e., under embedding, NOC is retained if the subject clause is extraposed (pace Landau 2001).
- Cf. section 3 as regards the German data.

*Goal of the talk:*

- present German data that support the claims from above
- link the following observations:
  - (i) control in subject clauses of OE verbs in simple sentences = OC
  - (ii) control in subject clauses of OE verbs in embedded clauses = NOC
  - (iii) embedding of other OC scenarios does not yield NOC

- sketch a tentative analysis
- point to loose ends

## 2. A Closer Look at Simple Sentences (Scenario A)

### 2.1 Non-psych verbs

*Standard scenario:*

Usually, subject clauses do not display OC; cf. (6) and (8) .

(5) *Context:*

Erzieherin Anna hat den Ruf, tollpatschig zu sein. Deshalb hat sie heute ein Gespräch mit der Vorgesetzten. Sie läuft Gefahr gekündigt zu werden.

Nursery school teacher Anna is said to be clumsy. So today her boss wants to talk to her. She runs the risk of getting fired.

(6) [PRO<sub>1</sub> sich<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] hilft der  
REFL at the handicraft.action today dirtied to have helps the  
Erzieherin<sub>1</sub> nicht gerade weiter.

nursery school teacher not exactly further

‘Having gotten herself dirty while doing handicraft today does not exactly help the nursery school teacher.’

(7) *Context:*

Erzieherin Anna hat den Ruf, tollpatschig zu sein. Deshalb hat sie heute ein Gespräch mit der Vorgesetzten. Maria mag Anna und versucht immer, ihr zu helfen, aber ausgerechnet heute hat Maria Anna beim Basteln bekleckert.

Nursery school teacher Anna is said to be clumsy. So today her boss wants to talk to her. Maria likes Anna and always tries to help her, but today of all days Maria dirtied Anna while doing handicraft.

(8) [PRO<sub>2</sub> sie<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] hilft der  
her at the handicraft.action today dirtied to have helps the  
Erzieherin<sub>1</sub> nicht gerade weiter.

nursery school teacher not exactly further

‘Having dirtied her while doing handicraft today does not exactly help the nursery school teacher.’

*Observation:*

Here, PRO can refer to *die Erzieherin* (as in (6), where PRO binds the reflexive *sich*), but this need not be the case: cf. (8), where the coindexed pronoun *sie* excludes the interpretation of PRO as *die Erzieherin*; otherwise, Principle B would be violated.

## CONCLUSION:

**Simple sentences with non-psych verbs and infinitival subjects display NOC.**

## 2.2 Psych verbs

### 2.2.1 Class II verbs<sup>3</sup>

*Scenario:*

Things are different if we replace *helfen* ('help') with an object experiencer verb like *ärgern* ('annoy') (cf. also Stiebels 2007, 2015); cf. (9) vs. (10).

- (9) [PRO sich<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert die  
REFL at the handicraft.action today dirtied to have annoys the  
Erzieherin<sub>1</sub>.  
nursery school teacher  
'Having gotten herself dirty while doing handicraft today annoys the nursery school teacher.'
- (10) \*[PRO sie<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert die  
her at the handicraft.action today dirtied to have annoys the  
Erzieherin<sub>1</sub>.  
nursery school teacher  
'Having got dirty while doing handicraft today annoys the nursery school teacher.'

*Intended meaning of (10):*

- (11) Dass jemand/man sie<sub>1</sub> bei der Bastelaktion heute bekleckert hat, ärgert die  
that someone her at the handicraft.action today dirtied has annoys the  
Erzieherin<sub>1</sub>.  
nursery school teacher  
'That someone dirtied her while doing handicraft today annoys the nursery school teacher.'

*Observations:*

(9) is grammatical:

PRO binds the anaphor in the subject clause → PRO is controlled by the Experiencer.

(10) is ungrammatical:

violation of Principle B → PRO must be controlled by the Experiencer .

*Note 1:*

The contrast between (10) (control) and (11) (finite counterpart) illustrates the deviant nature of the former.

*Note 2:*

Extraposition does not change anything (cf. also footnote 1); in the context of OE verbs, we get OC, in the case of non-psych verbs NOC; cf. (12) and (13), respectively.

---

<sup>3</sup>We refer to Belletti & Rizzi's (1988) classification of psych verbs according to which class II verbs comprise OE verbs with Accusative Case-marked Experiencer and class III verbs OE verbs with Dative Case-marked Experiencer. As has been discussed in the literature, this classification is probably not fine-grained enough, but as far as we can tell so far, there does not seem to be a difference concerning the control issues that we discuss. For a proposal concerning a subclassification of class II verbs, cf. Hirsch (2016) and references cited there.

- (12) Es ärgert die Erzieherin<sub>1</sub>, [PRO sich<sub>1</sub>/\*sie<sub>1</sub> bei der Bastelaktion  
 it annoys the nursery school teacher REFL/her at the handicraft.action  
 heute bekleckert zu haben] .  
 today dirtied to have  
 ‘It annoys the nursery school teacher that she/someone dirtied herself/her while doing  
 handicraft today.’
- (13) Es hilft der Erzieherin<sub>1</sub> nicht gerade weiter, [PRO<sub>2</sub> sie<sub>1</sub> bei der  
 it helps the nursery school teacher not exactly further her at the  
 Bastelaktion heute bekleckert zu haben] .  
 handicraft.action today dirtied to have  
 ‘It does not exactly help the nursery school teacher that someone dirtied her while  
 doing handicraft today.’

## CONCLUSION:

Simple sentences with class II psych verbs and infinitival subjects (scenario A) trigger OC.

### 2.2.2 Class III verbs

*Note:*

The same observation seems to hold for dative experiencer verbs.

- (14) *Context:*  
 Peter ist Fernsehmoderator und für jeden Spaß zu haben. Gestern kam es in der  
 Sendung zu einer Tortenschlacht.  
 Peter is a TV host and is game for anything. Yesterday, they had a custard-pie fight  
 in the show.
- (15) [PRO sich<sub>1</sub> in den Torten zu wälzen] hat Peter<sub>1</sub> gefallen.  
 REFL in the custard pies to wallow has Peter pleased  
 ‘Peter enjoyed wallowing in custard pies.’
- (16) \*[PRO ihn<sub>1</sub> mit einer Torte zu bewerfen] hat Peter<sub>1</sub> gefallen.  
 him with a custard pie to hit has Peter pleased  
 ‘Peter enjoyed being hit with a custard pie.’

*Observations:*

(15) is grammatical:

PRO binds the anaphor in the subject clause → PRO is controlled by the Experiencer.

(16) is ungrammatical:

violation of Principle B → PRO must be controlled by the Experiencer .

*Contrast: finite counterpart*

- (17) Dass man ihn<sub>1</sub> mit einer Torte beworfen hat, hat Peter<sub>1</sub> gefallen.  
that one him with a custard pie hit has has Peter pleased  
'That they threw custard pies at him pleased Peter.'

*Contrast: variant without psych verb*

- (18) *Context:*  
Peter ist Fernsehmoderator und soll gefeuert werden. Sein Team sucht nach einem  
Ausweg und tauscht Ideen in einer Sitzung aus. Sie kommen zu folgendem sarkastis-  
chen Schluss.

Peter is a TV host and is about to get fired. His team is trying to prevent this and is  
swapping ideas in a meeting. They come to the following sarcastic conclusion.

- (19) [PRO<sub>2</sub> ihn<sub>1</sub> mit einer Torte zu bewerfen] hilft Peter<sub>1</sub> auch nicht weiter.  
him with a custard pie to hit helps Peter also not further  
'Throwing a custard pie at him will not help Peter either.'

## CONCLUSION:

Simple sentences with class III psych verbs and infinitival subjects (scenario A)  
trigger OC.

### 3. The Role of Embedding and Extraposition (Scenario B and C)

#### 3.1 The German data

*Observations:*

- Under embedding: OC → NOC
- Extraposition does not have an effect in German.

*Class II psych verbs:*

*Recall: without embedding (cf. (10); scenario A):*

- (20) \*[PRO sie<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert die  
her at the handicraft.action today dirtied to have annoys the  
Erzieherin<sub>1</sub>.  
nursery school teacher  
'Having got dirty while doing handicraft today annoys the nursery school teacher.'

*With embedding (without and with extraposition; scenario B/C):*

- (21) Peterchen<sub>2</sub> glaubt, [PRO<sub>2</sub> sie<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben]  
Peter.little believes her at the handicraft.action today dirtied to have  
ärgert die Erzieherin<sub>1</sub>.  
annoys the nursery school teacher  
'Little Peter thinks that having dirtied her while doing handicraft today annoys the  
nursery school teacher.'

- (22) Peterchen<sub>2</sub> glaubt, es ärgert die Erzieherin<sub>1</sub>, [PRO<sub>2</sub> sie<sub>1</sub> bei der  
 Peter.little believes it annoys the nursery school teacher her at the  
 Bastelaktion heute bekleckert zu haben].  
 handicraft.action today dirtied to have  
 ‘Little Peter thinks that it annoys the nursery school teacher having dirtied her while  
 doing handicraft today.’

*Class III psych verbs:*

*Recall: without embedding (cf. (16); scenario A):*

- (23) \*[PRO ihn<sub>1</sub> mit einer Torte zu bewerfen] hat Peter<sub>1</sub> gefallen.  
 him with a custard pie to hit has Peter pleased  
 ‘Peter enjoyed being hit with a custard pie.’

*With embedding (without and with extraposition; scenario B/C):*

- (24) *Context:*  
 Peters Assistentin Maria durfte die Torte werfen.  
 Peter’s assistant Maria had the privilege of throwing the custard pie.
- (25) Maria<sub>2</sub> glaubt, [PRO<sub>2</sub> ihn<sub>1</sub> mit einer Torte zu bewerfen] hat Peter<sub>1</sub> gefallen.  
 Maria believes him with a custard pie to daub has Peter pleased  
 ‘Maria thinks that hitting him with a custard pie pleased Peter.’
- (26) Maria<sub>2</sub> glaubt, es hat Peter<sub>1</sub> gefallen, [PRO<sub>2</sub> ihn<sub>1</sub> mit einer Torte zu  
 Maria believes it has Peter pleased him with a custard pie to  
 bewerfen].  
 daub  
 ‘Maria thinks that it pleased Peter being hit with a custard pie.’

*Remark concerning the data:*

Landau (2001) suggests that extraposition in German does not allow for LD control. However, we believe that the examples chosen there are difficult to judge because of their complexity (cf. (27) and (28)). To us, there seems to be no difference between the two examples as regards grammaticality.

- (27) \*Mary<sub>1</sub> ist sicher, dass es den Hans nicht stören würde, seiner Freundin ihr<sub>1</sub>  
 Mary is sure that it the.ACC Hans not annoy would his girlfriend her  
 Herz auszuschütten.  
 heart out.to.throw  
 ‘Mary is sure that it would not annoy John to reveal her heart to his girlfriend.’  
 (cf. Landau 2001:116, judgement as given there)
- (28) Mary<sub>1</sub> ist sicher, dass seiner Freundin ihr<sub>1</sub> Herz auszuschütten den Hans nicht  
 Mary is sure that his girlfriend her heart out.to.throw the.ACC Hans not  
 stören würde.  
 annoy would  
 ‘Mary is sure that to reveal her heart to his girlfriend would not annoy John.’  
 (cf. Landau 2001:116, judgement as given there)

### 3.2 The analysis in Landau (2001)

*Problem concerning extraposition in German:*

We think that the analysis proposed in Landau (2001) for the English extraposition data cannot be applied straightforwardly to German:

*Landau's (2001) goal: to derive the following scenarios*

*(i) with psych verbs:*

- to derive OC in the context of embedding with extraposition ( $\neq$  our view concerning German)
- to derive NOC in the context of embedding without extraposition

*(ii) without psych verbs:*

- to derive NOC in the context of embedding with/without extraposition

*Landau's (2001) assumptions:*

*on the underlying argument structure:*

→ the subject clause in the context of OE verbs is base-generated in CompV; the Experiencer is in SpecV

*on extraposition (its motivation):*

→ "VP-internal clauses must be peripheral at PF." (Landau 2001:120)

*on OC/NOC:*

→ control relations inside the VP-shell are interpreted as OC; control relations outside the VP-shell are interpreted as NOC; cf. (29).

(29) *The OC Generalization:*

In a configuration [... DP<sub>1</sub> ... Pred ... [<sub>S</sub> PRO<sub>1</sub> ...] ...], where DP controls PRO: If at LF, S occupies a complement/specifier position in the VP-shell of Pred, then DP (or its trace) also occupies a complement/specifier position in that VP-shell.

(Landau 2001:118)

*(i) Analysis if psych verbs are involved:*

*A. without extraposition:*

→ the infinitival clause (and with it PRO) moves to the subject position and thus leaves the VP-shell; NOC is predicted.

*B. with extraposition:*

→ in a VO language like English, the infinitival clause (in CompV) is already peripheral

→ since being peripheral is the motivation for extraposition, additional movement is not required (and blocked for economy reasons)

→ PRO (inside the subject clause) stays inside the VP and hence requires a local controller (cf. (29)); OC is predicted.

*(ii) Analysis if non-psych verbs are involved:*

In this case, the infinitival clause is not peripheral; it is located in SpecV and the Patient argument in CompV. Hence, extraposition involves movement out of the VP-shell (right-adjunction). As a result, both extraposition and intraposition (which involves movement to



the subject position) yield NOC.

*Situation in German:*

- OV-language: material in CompV is *not* peripheral
- the extraposed structure does not correspond to the underlying structure of OE verb constructions
- it involves right-adjunction of the infinitival clause
- the infinitival clause is not inside the VP-shell anymore.

*Result:*

For OV-languages, the analysis therefore generally predicts NOC if extraposition is involved.

*Comment:*

In fact, although problematic for the original claim in Landau (2001) (that extraposition involves OC), it partly fits our view of the German data: that we have NOC in the case of *embedded* extraposition.

*Problems concerning simple sentences:*

What remains problematic under Landau's (2001) approach are simple sentences, or to be more precise:

- OC in non-extraposed simple sentences as well as
- OC in extraposed simple sentences in OV-languages.

In both scenarios it is unexpected that we get OC, since the infinitival clause leaves the VP-domain (cf. OC Generalization). What we would therefore expect is NOC.

*A Note on English:*

Motut & Grant (2016):

The results of their experiments also cast doubt on the English extraposition data; they find evidence that LD control in English is not categorically blocked by extraposition in the context of psych verbs. This suggests that there might be no difference between English and German with respect to scenario B/C.

#### 4. Parallels to Backward Binding

*Recall scenario A:*

- (30) [PRO<sub>1</sub> sich<sub>1</sub>/\*sie<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert die  
REFL/her at the handicraft.action today dirtied to have annoys the  
Erzieherin<sub>1</sub>.  
nursery school teacher  
'Having got dirty while doing handicraft today annoys the nursery school teacher.'

- (31) *OC in simple sentences:*  
[<sub>CP</sub> PRO<sub>1</sub> ... ] OE-verb ... Experiencer<sub>1</sub>

*Remark:*

Standard necessary requirement for OC: local, c-commanding controller (cf. Williams 1980, Hornstein 1999, Landau 2000, 2015, Fischer 2016, a.o.)

*Observations:*

- At first sight, this does not seem to be the case in (31).
- The scenario is reminiscent of backward binding, cf. (32).

(32) a. [Pictures of himself<sub>1</sub>] annoyed Mark<sub>1</sub>.  
b. \*[Pictures of himself<sub>1</sub>] killed Mark<sub>1</sub>. (cf. Żychliński 2013:55)

*Backward binding:*

First discussed by Postal (1970, 1971): "experiencer objects can bind anaphors embedded inside the theme subject" (cf. Landau 2010:71).

(33) *Backward binding:*  
[ ... reflexive<sub>1</sub> ... ] OE-verb ... Experiencer<sub>1</sub>

*Remarks:*

Whether the reflexive in (33) is really an anaphor or rather a logophor has been debated in the literature.

(i) If these reflexives are anaphors, the standard assumption would be that they have to be locally c-commanded by their antecedent (= the Experiencer) at least at some point in the derivation (Principle A).

(ii) If they are logophors, recent studies in the literature have also proposed that logophoric anchoring should be encoded in syntax in terms of a perspectival or logophoric center (cf., for instance, Speas 2004, Sundaesan 2012, Sundaesan & Pearson 2014, Landau 2015, a.o.).

→ Considering the similarity between (33) and (31), the literature on backward binding could be helpful to derive OC in (31).

→ What these proposals typically share is the assumption that at some point in the derivation the Experiencer c-commands the subject.

*Some previous analyses that involve this c-command relationship:*

(i) *Belletti & Rizzi (1988) (locus classicus):*

- assume that the Theme argument is base-generated below the Experiencer
- D-Structure configuration: the Experiencer c-commands the Theme argument
- at S-Structure, the Theme argument moves to the subject position

(ii) *Sato & Kishida (2008):*

- assume that the Experiencer argument raises across the subject at LF
- target position: specifier of a Point-of-View projection (in the left periphery of the clause)
- motivation: to be interpreted as Pivot (cf. Sells 1987)/ "a person from whose viewpoint a certain internal state is reported" (p. 3)

(iii) *Landau (2010) (independent of backward binding):*

- assumes that Experiencers are mental locations, i.e. locatives
- hence, they undergo (covert) locative inversion (formally, to check a [loc]-feature against T)

- target: a SpecT position ("LF-subject")
  - resulting c-command relation at LF: Experiencer c-commands the infinitival clause
- In our analysis in section 5, we will build on Sato & Kishida (2008) as well as on Landau (2010).

*Remarks concerning Landau (2010):*

*Difference compared to Landau (2001)*

- in the case of eventive psych verbs: Experiencer is base-generated below the Causer
- if the Causer is realized as infinitival clause, the latter is not peripheral
- consequence: extraposed structure involves movement out of the VP-shell (note: as in OV languages)

*Consequence:*

OC Generalization predicts NOC.

*Solution by Landau (2010):*

- covert Experiencer raising takes place; result: the Experiencer locally c-commands the infinitival clause as LF-subject
- NOC-PRO is subject to the same constraints as logophors
- clausemate subjects of logophors typically are obligatory antecedents; this is why the Experiencer (being a clausemate to the infinitive) ends up being an obligatory controller
- the OC Generalization is not violated; the relevant cases of extraposition just involve a highly restricted interpretation of NOC-PRO (result: OC reading)

*Problem:*

Predicts that, independent of the OC Generalization, we always end up with an OC reading as soon as Experiencer raising is involved (either as "true" OC, or NOC being restricted by structural constraints on the interpretation of logophors).

In particular, the approach is insensitive to embedding:

*Recall what we have observed for German:*

- simple sentences with OE verbs: OC (independent of extraposition)
- embedding (under attitude verbs): NOC (independent of extraposition)

## 5. Towards an Analysis

*Note:*

To a large extent, the proposal we develop neither hinges on a particular theory of control nor on a particular theory of argument linking as regards OE verbs. For the sake of concreteness, however, we follow the hybrid theory of control put forward in Fischer (2016) as well as the argument structure proposed for OE verbs in Landau (2010).

*Assumptions of the hybrid theory of control:*

- PRO is an empty argument with the feature specification  $\{D, \varphi: \_ \}$  (cf. also Landau's 2015 view of PRO as a minimal pronoun)
- its unvalued  $\varphi$ -features express its referential defectiveness (pace Landau 2015)

- PRO probes upwards to find a goal that values its  $\varphi$ -features (as regards upward probing, cf. also Schäfer 2008, Wurmbrand 2011 et seq., Zeijlstra 2012, Bjorkman & Zeijlstra 2014)

*Derivation of OC:*

- when a DP with valued  $\varphi$ -features is merged while PRO is still accessible, this DP can act as a goal and Agree is established
- $\varphi$ -feature valuation takes place and PRO inherits the index of the goal DP
- OC between the goal DP (= controller) and PRO is established

### 5.1 OC in simple sentences with OE verbs

(34) *Simple sentences involving OE verbs:*  
 [<sub>CP</sub> PRO<sub>1</sub> ... ] OE-verb ... Experiencer<sub>1</sub>

(35) [<sub>CP</sub> PRO<sub>1</sub> sich<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert die  
 REFL at the handicraft.action today dirtied to have annoys the  
 Erzieherin<sub>1</sub>.  
 nursery school teacher  
 ‘Having gotten herself dirty while doing handicraft today annoys the nursery school teacher.’

*Assumption:*

Following Sato & Kishida (2008) and Landau (2010), we assume that the Experiencer moves covertly to a position c-commanding the infinitive, and, like Sato & Kishida (2008), we assume that the target position is in the left periphery of the clause.

(36) *Resulting configuration:*  
 Experiencer<sub>1</sub> ... [<sub>TP</sub> [<sub>CP</sub> PRO<sub>1</sub> ... ] OE-verb ... t<sub>Experiencer</sub>]

*Consequence:*

Inside the infinitival clause, PRO has moved to the edge (on its search for a goal), where it is still accessible when the Experiencer reaches its target position in the left periphery. Consequently, Agree can be established between the Experiencer and PRO, and OC can be derived.

*Note:*

Without further ado we probably run into a timing problem because Experiencer raising is covert movement, i.e. LF-movement, and Agree is presumably not an operation available at LF. Potential way out: in the overt syntax, the Experiencer already agrees with the C-head which in turn can then serve as a goal for PRO.

### 5.2 NOC in simple sentences with non-psych verbs

(37) *Simple sentences involving non-psych verbs:*  
 [<sub>CP</sub> PRO ... ] verb ... co-argument

*No Experiencer raising:*

Since Experiencer raising does not take place, there is no DP-argument c-commanding PRO,

so PRO does not find a goal that can value its  $\varphi$ -features. As a result, default valuation takes place, which means that PRO is interpreted as arbitrary PRO (cf. Mc Fadden & Sundaresan 2016, Fischer 2016).

### 5.3 Embedding scenario A under attitude verbs: deriving NOC

*The relevant difference:*

Why should embedding have an effect on the interpretation of PRO?

What difference does embedding make?

*Our suggestion:*

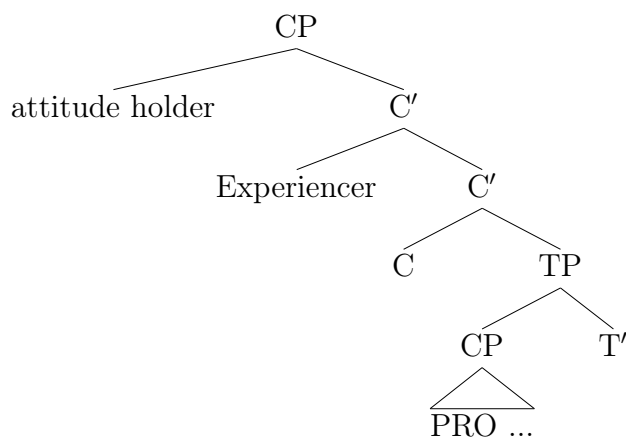
- Embedding takes place under attitude predicates.<sup>4</sup>
- Adopting certain assumptions from Landau (2015) on logophoric control, we assume that even the embedded finite CP is a "logophoric CP". This means that it hosts a pronoun in its specifier which is selected by C and syntactically realizes the AUTHOR/ADDRESSEE coordinate of the context of evaluation (see Landau 2015 for details).

*Consequence:*

In the left periphery of the embedded clause, PRO finds two potential goals (attitude holder and Experiencer). As a result, PRO can choose either of them as controller, and optionality arises.<sup>5</sup>

(38) *Embedding under attitude verb; embedded clause involving OE verb:*  
 ... attitude verb ... [<sub>CP<sub>emb.</sub></sub> attitude holder Exp. C [<sub>TP</sub> [<sub>CP</sub> PRO ... ] OE-verb ... t<sub>Exp.</sub>]]

(39) *Left periphery of the embedded clause:*



*Remark:*

The CP of the embedded clause is thus the first phase in which PRO can find a goal/controller; and there are two of them.<sup>6</sup>

<sup>4</sup>Note that in all cases of embedding discussed in the literature, the matrix predicate is an attitude predicate.

<sup>5</sup>For the sake of convenience we assume in our illustrations that both the attitude holder and the Experiencer are in SpecC positions; a more fine-grained structure can be adopted as long as it is assumed that they are in the same phase and thus can in principle both be a goal for PRO.

<sup>6</sup>Note that the analysis hinges on the introduction of an attitude holder in the syntax, which means that it hinges on the matrix predicate being an attitude predicate. Hence, we predict that embedding under non-

## 5.4 Embedding of standard OC contexts: OC is retained

*Observation:*

Embedding of standard OC constructions (like standard subject control) does not have an effect on the type of control; cf. (40) vs. (41).

(40) Hans<sub>1</sub> versucht [PRO<sub>1/\*2</sub> zu gewinnen].  
Hans tries to win  
'Hans tries to win.'

(41) Peter glaubt, Hans<sub>1</sub> versucht [PRO<sub>1/\*2</sub> zu gewinnen].  
Peter believes Hans tries to win  
'Peter thinks Hans tries to win.'

(42) *Embedding standard subject OC under attitude verb:*  
... att. verb ... [CP<sub>emb.</sub> attitude holder [TP [vP controller ... contr. verb ... [CP PRO]]]]

*Analysis:*

The vP of the first embedded clause (headed by the control predicate) is the first phase in which PRO can find a goal/controller. When the attitude holder comes into play in the CP layer, Agree and thus the control relation between PRO and the lower subject has already been established. Therefore, embedding under an attitude predicate does not have an effect on the control reading.

## 6. Alternative View

*Playing the devil's advocate:*

What if Landau (2010) is right in assuming that some instances of OC are in fact derived as NOC configurations with independent restrictions on the interpretation of logophoric PRO (which make it look like "true OC")?

*With respect to our data:*

- Do we really observe a shift from OC in simple sentences to NOC in embedded clauses?
- Or are these OC cases in fact instances of NOC configurations which can only be interpreted in one way for independent reasons?

(43) [PRO<sub>1/\*2</sub> sich<sub>1</sub>/\*sie<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert  
REFL/her at the handicraft.action today dirtied to have annoys  
die Erzieherin<sub>1</sub>.  
the nursery school teacher

---

attitude verbs does not give rise to an NOC reading. As far as we can tell, this prediction is borne out; (i) cannot mean that it pleased the TV host that someone/Maria hit him with custard pies. (Since the embedded clause cannot be V2, intraposition would be very unnatural; this is why we use extraposition here.)

- (i) Maria<sub>2</sub> las in der Zeitung/ stellte fest, dass es dem Moderator<sub>1</sub> gefallen hat, [PRO<sub>1/\*2</sub> ihn mit  
Maria read in the newspaper/ observed that it the TV host pleased has him with  
Torten zu bewerfen].  
custard pies to daub  
'Maria read in the newspaper/observed that it pleased the TV host<sub>1</sub> to hit him<sub>2</sub> with custard pies.'

‘Having gotten herself dirty while doing handicraft today annoys the nursery school teacher.’

*In terms of our analysis this would mean:*

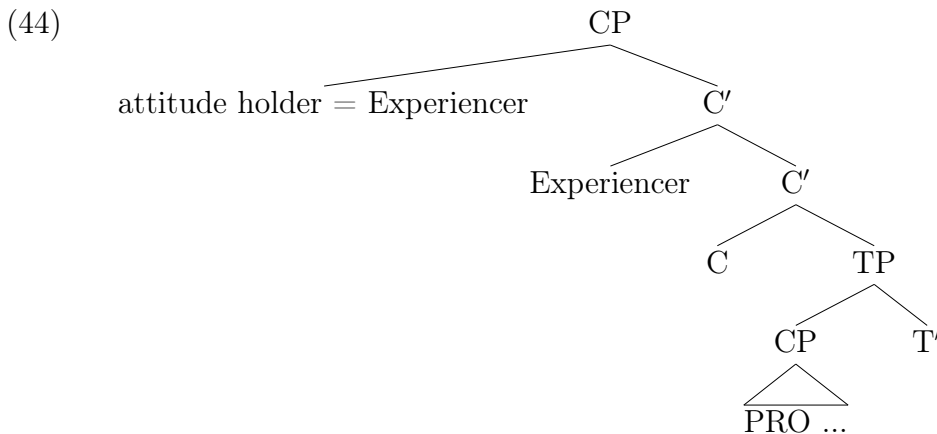
- in the left periphery, a logophoric center would be projected
- moreover, Experiencer raising to the left periphery takes place

*Why do we only get one potential controller?*

Following Zribi-Hertz (1989), 3rd person logophors need an antecedent in the discourse; moreover, she states that "[a]n isolated sentence is read as a complete discourse" (p. 722). For our simple sentences, this entails that the author variable corresponds to the Experiencer. On the other hand, Experiencer raising to SpecC takes place.

*Consequence:*

Although syntactically two potential controllers are available, we do not get optionality since the two controllers are semantically non-distinct.



*Can we test which assumption is the correct one?*

*Potential test:*

We would expect a different behaviour if we used 1st/2nd person logophors; in this case, the Experiencer and the information held available by the logophoric center would not coincide, because the author variable would correspond to the speaker ( $\neq$  Experiencer).

*Predictions:*

*If the "true" OC analysis is on the right track:*

(46) should allow only the reading paraphrased in (47-a) (= PRO<sub>1/\*2</sub>); obligatory controller: Experiencer.

*If the restricted NOC analysis is on the right track:*

(46) should allow both readings given in (47) (= PRO<sub>1/2</sub>); controller = Experiencer *or* Author.

(45) *Contexts:*

- a. Ich bin Praktikant im Kindergarten. Die Erzieherin hat praktische Prüfung, und ausgerechnet heute hat sie mich mit Farbe bekleckert. Sie fürchtet, dass das keinen guten Eindruck macht.

I am a kindergarten trainee. The nursery school teacher has her practical test, and today of all days she dirtied me with paint. She fears that this will not make a good impression.

- b. Ich bin Praktikant im Kindergarten. Die Erzieherin hat praktische Prüfung, und ausgerechnet heute habe ich mich mit Farbe bekleckert. Sie fürchtet, dass das keinen guten Eindruck macht.

I am a kindergarten trainee. The nursery school teacher has her practical test, and today of all days I got myself dirty with paint. She fears that this will not make a good impression.

- (46) [PRO<sub>mich<sub>2</sub></sub> mit Farbe bekleckert zu haben] ärgert die Erzieherin<sub>1</sub>.  
 me with paint dirtied to have annoys the nursery school teacher  
 ‘That she dirtied me/that I got myself dirty with paint annoys the nursery school teacher.’

- (47) a. Dass sie mich mit Farbe bekleckert hat, ärgert die Erzieherin.  
 that she me with paint dirtied has annoys the nursery school teacher  
 ‘That she dirtied me with paint annoys the nursery school teacher.’  
 b. Dass ich mich mit Farbe bekleckert habe, ärgert die Erzieherin.  
 that I myself with paint dirtied have annoys the nursery school teacher  
 ‘That I got myself dirty with paint annoys the nursery school teacher.’

*Problems:*

- It is not easy to judge the data: can (46) mean (47-b)?

Our intuition concerning (46): reading (47-a): perfectly fine (like (48-a)); reading (47-b): marked, but definitely better than (48-b).

*Comparison to 3rd person scenario (from above):*

- (48) a. [PRO<sub>1</sub> sich<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert die Erzieherin<sub>1</sub>.  
 REFL at the handicraft.action today dirtied to have annoys the nursery school teacher  
 ‘Having gotten herself dirty while doing handicraft today annoys the nursery school teacher.’  
 b. \*[PRO<sub>2</sub> sie<sub>1</sub> bei der Bastelaktion heute bekleckert zu haben] ärgert die Erzieherin<sub>1</sub>.  
 her at the handicraft.action today dirtied to have annoys the nursery school teacher  
 ‘Having got dirty while doing handicraft today annoys the nursery school teacher.’

- If the restricted NOC analysis is correct, why is PRO<sub>arb</sub> ruled out? (Recall, for instance, (1-b) from the beginning.) Does it mean that the distribution of PRO<sub>arb</sub> is further restricted?
- Further complication: arguably, extraposition does have an effect in this case (here, we have different intuitions):



- (49) Es ärgert die Erzieherin<sub>1</sub>, [PRO mich<sub>2</sub> mit Farbe bekleckert zu  
 it annoys the nursery school teacher me/myself with paint dirtied to  
 haben].  
 have  
 ‘It annoys the nursery school teacher that she dirtied me/ I got myself dirty with  
 paint.’

Silke: only reading: PRO = nursery school teacher (why would this be the case if it is NOC?)

Marcel: PRO can be interpreted as speaker as well

## 7. Outlook and Data Questions

*Remark:*

As the previous section has revealed, the data are presumably not as clear as suggested before. In particular, we think that the judgements are easily blurred by intervening factors like modality (cf. also Landau 2001: fn.1) or the question of whether the Causer is eventive or not.

*Outlook:*

Therefore, we would like to experimentally collect more judgements to get a more clear-cut picture of the data.

## 8. Summary

*German data:*

- simple sentences with OE verbs: OC reading (independent of extraposition); cf. (i) below
- embedding under attitude verbs: NOC (independent of extraposition); cf. (iii) below

*A first proposal:*

(i) *simple sentences involving OE verbs: OC reading*

Experiencer movement to the left periphery establishes configuration in which the obligatory control relation can be licensed.

(ii) *simple sentences without psych verbs: NOC (contrasts with (i))*

PRO is not locally c-commanded by a potential controller (no Experiencer raising); OC cannot be established.

(iii) *embedding of scenario (i) under attitude verbs: NOC (contrasts with (i))*

→ the attitude holder is syntactically projected in the left periphery of the embedded clause  
 → consequence: there are two potential controllers for PRO in the left periphery of the embedded clause (attitude holder and Experiencer)

(iv) *embedding of other OC-scenarios: OC is retained (contrasts with (iii))*

→ in the left periphery, an attitude holder is projected  
 → however, the other controller is not in the left periphery (it is not a DP that has undergone Experiencer raising), but lower down in the tree (i.e. in the previous phase)  
 → as a result, the latter is closer to PRO and obligatorily chosen as controller

## References

- Belletti, Adriana & Luigi Rizzi. 1988. Psych-Verbs and Theta-Theory. *Natural Language & Linguistic Theory* 6: 291-352.
- Bjorkman, Bronwyn & Hedde Zeijlstra. 2014. Upward Agree is Superior. [Http://ling.auf.net/lingbuzz/002350](http://ling.auf.net/lingbuzz/002350).
- Fischer, Silke. 2016. On the Locality of Control and Islands in German: Exploring a Hybrid Theory of Control. Ms., University of Stuttgart.
- Grinder, John. 1970. Super Equi-NP Deletion. In *Proceedings of the Seventh Annual Meeting of the Chicago Linguistic Society*, University of Chicago, Chicago, 297-317.
- Hirsch, Nils. 2016. Groups of Object Experiencer Verbs – Empirically Revisited. Presentation at *DGfS-Jahrestagung 2016*, University of Konstanz.
- Hornstein, Norbert. 1999. Movement and Control. *Linguistic Inquiry* 30: 69-96.
- Landau, Idan. 2001. Control and Extraposition: The Case of Super-Equi. *Natural Language & Linguistic Theory* 19: 109-152.
- Landau, Idan. 2010. *The Locative Syntax of Experiencers*. Cambridge, MA: MIT Press.
- Landau, Idan. 2015. *A Two-Tiered Theory of Control*. Cambridge, MA: MIT Press.
- McFadden, Tom & Sandhya Sundaresan. 2016. Failure to Control is Not a Failure: It's *pro*. Ms., ZAS Berlin/University of Leipzig.
- Motut, Alexandra & Margaret Grant. 2016. Experiencers Do Not Categorically Block Long-Distance Control of PRO: Evidence from Naturalness Ratings and Eye Movement During Reading. Ms., University of Toronto, to appear in *Proceedings of WCCFL 34*.
- Postal, Paul. 1970. On the Surface Verb *Remind*. *Linguistic Inquiry* 1: 37-120.
- Postal, Paul. 1971. *Cross-Over Phenomena*. New York: Holt, Rinehart and Winston.
- Sato, Yosuke & Maki Kishida. 2008. Psychological Predicates and the Point-of-View Hyperprojection. [Http://ling.auf.net/lingbuzz/000590](http://ling.auf.net/lingbuzz/000590), appeared in 2009 in: *Gengo Kenkyu* 135: 123-150.
- Schäfer, Florian. 2008. *The Syntax of (Anti-)Causatives: External Arguments in Change-of-state Contexts*. Amsterdam: Benjamins.
- Sells, Peter. 1987. Aspects of Logophoricity. *Linguistic Inquiry* 18: 445-479.
- Speas, Margaret. 2004. Evidentiality, Logophoricity and the Syntactic Representation of Pragmatic Features. *Lingua* 114: 255-276.
- Stiebels, Barbara. 2007. Towards a Typology of Complement Control. In *ZAS Papers in Linguistics 47: Studies in Complement Control*, B. Stiebels (ed.), 1-80.
- Stiebels, Barbara. 2015. Control. In *Syntax – Theory and Analysis. An International Handbook (HSK 42)*, eds. T. Kiss & A. Alexiadou, 412-446. Berlin: de Gruyter.
- Sundaresan, Sandhya. 2012. *Context and (Co)reference*. Doctoral dissertation, University of Stuttgart & University of Tromsø.
- Sundaresan, Sandhya & Hazel Pearson. 2014. Formalizing Linguistic Perspective: Insights from Spatial Anaphora. [Http://ling.auf.net/lingbuzz/002270](http://ling.auf.net/lingbuzz/002270).
- Williams, Edwin. 1980. Predication. *Linguistic Inquiry* 11: 203-238.
- Wurmbrand, Susi. 2011. On Agree and Merge. Lecture Notes, University of Connecticut.
- Zeijlstra, Hedde. 2012. There is Only One Way to Agree. *The Linguistic Review* 29: 491-539.
- Zribi-Hertz, Anne. 1989. Anaphor Binding and Narrative Point of View: English Reflexive Pronouns in Sentence and Discourse. *Language* 65: 695-727.
- Żychliński, Sylwiusz. 2013. On some Aspects of the Syntax of Object Experiencers in Polish and English. Dissertation, University of Poznań.