

Why German is *Not* an Exception to the Universal <IO, DO> Base Order of Double Object Constructions

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1. Introduction

German is a language with a variety of double object constructions (DOCs). The focus of this paper is DOCs with a dative indirect object (IO) and an accusative direct object (DO), as in (1a-c).

- (1) a. dass Eva der Studentin eine Email schickte DP_{DAT}, DP_{ACC}
that Eva.NOM the.DAT student.DAT an.ACC email.ACC sent
'that Eva sent the student an email'
- b. dass Eva der Studentin die Tür aufmachte DP_{DAT}, DP_{ACC}
that Eva.NOM the.DAT student.DAT the.ACC door.ACC opened
'that Eva opened the door for the student'
- c. dass Eva die Studentin einer Gefahr aussetzte DP_{ACC}, DP_{DAT}
that Eva.NOM the.ACC student.ACC a.DAT danger.DAT exposed
'that Eva exposed the student to a danger'

In much recent literature on DOCs, it has been argued that in German the DO is base-generated higher than the IO (den Dikken 1995, Müller 1995, McGinnis 1999, Tungseth 2008, among others). This claim would make German an outstanding counterexample to the crosslinguistic generalization that IOs merge higher than DOs (Marantz 1993, Pesetsky 1995, Bowers 2010, among others). In this paper, I provide novel data from depictive stranding, quantifier float, and split topicalization in support of the view that IO>DO in fact is the underlying order in German dative DOCs (cf. Lenerz 1977, Webelhuth 1989, Sabel 1996, McFadden 2004, McIntyre 2006, among others).

Following Georgala's et al. (2008) analysis of applicative constructions which predicts IO>DO as the underlying order in DOCs, I propose that German has both low- (raising) and high-type (thematic) applicatives, but a single position for applicative heads above the lexical VP. The depictive stranding facts strongly support the view that in the raising applicative construction, Appl has a strong EPP feature that attracts the recipient IO from its underlying position in [Spec, VP]. Thematic applicatives are merged in [Spec, ApplP].

Section 2 briefly introduces the raising/thematic applicative hypothesis and shows how it applies to German. Section 3 provides evidence from stranded depictives, floating quantifiers and split topics in support of the view that <IO, DO> is the underlying order of objects in German applicative constructions. Section 4 concludes.

2. Raising/thematic applicative hypothesis and the syntax of German DOCs

Marantz in his influential paper from 1993 proposes that extra-object constructions such as the Chaga benefactive construction in (2) and the English possessor/recipient ditransitive construction in

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(3) share the same structure (4). In (4) the light applicative verb APPL selects the lexical VP as its complement.

(2) *Chaga benefactive applicative* (Marantz 1993)
 N-a-i-lyi-i-a m-ka k-elya
 FOC-SP-PRS-eat-APPL-FV wife food
 ‘He is eating food for his wife.’

(3) Eva sent the student an email.

(4) [_{VP} IO [_V APPL [_{VP} DO V]]] (Marantz 1993)

Marantz’s analysis crucially differs from accounts which claim that ditransitive constructions involve extra structure within the lexical VP, such as Kayne’s (1984) small clause analysis in (5a) and Pesetsky’s (1995) cascade analysis in (5b).

(5) a. [_{VP} ... [_V V [_{XP} IO [_X X DO]]]] (Kayne 1984)
 b. [_{VP} ... [_V V [_{PP} IO [_P G DP]]]] (Pesetsky 1995)

The two traditions are combined in Pylkkänen’s (2002, 2008) theory, which argues that applicatives come in two varieties: high and low. High and low applicatives differ semantically, and consequently syntactically. High applicatives (6a) relate new event participants, such as beneficiaries, maleficiaries, instruments to the event described by the lexical VP. Low applicatives (6b), on the other hand, denote a transfer-of-possession relation between two individuals, namely the theme and the applied argument (goal/source).

(6) (Pylkkänen 2002, 2008)
 a. **High applicative:** [_{VoiceP} DP_{AGENT} [_{Voice} Voice [_{AppIP} DP_{BNF/LOC/INSTR...} [_{AppI} Appl [_{VP} V DP]]]]]
 b. **Low applicative:** [_{VoiceP} DP_{AGENT} [_{Voice} Voice [_{VP} V [_{AppIP} DP_{GOAL/SOURCE} [_{AppI} Appl DP_{THEME}]]]]]

What the raising/thematic applicative hypothesis (Georgala et al. 2008) contributes to the discussion about the structure of DOCs is that it reconciles the evidence that extra-objects are merged in at least two positions (Pylkkänen 2002, 2008), as in (6), with the evidence that there is a single position for applicative heads (Marantz 1993), as in (4). Section 2.1. briefly introduces and motivates the raising/thematic applicative hypothesis.

2.1. Raising/thematic applicative hypothesis

The raising/thematic applicative hypothesis claims that there is only one applicative head and it always appears above the lexical VP. Yet, the two types of applicatives do exist: the two patterns involve different thematic roles and exhibit distinct semantic and syntactic behavior. The way the raising/thematic applicative hypothesis deals with this seeming contradiction is by positing a single structural position for applicative heads **above** the lexical VP with two subtypes:

a. Thematic applicatives, which introduce an additional argument above the lexical VP, as per Pylkkänen’s (2002, 2008) high applicative analysis in (6a).

(7) [_{VP} SUBJ [_V v [_{AppIP} IO_{BNF/LOC/INSTR...} [_{AppI} Appl [_{VP} V DO]]]]]

b. Raising applicatives¹, which function as Case-licensing heads, attracting the IO from its base position in the VP to their specifier.

(8) [_{VP} SUBJ [_V v [_{AppIP} IO_{REC} [_{AppI} Appl [_{VP} t_{IO} [_V V DO]]]]]]]

¹*Raising Applicative* corresponds to the label *Expletive Applicative* used in Georgala et al. 2008, where the hypothesis is first presented. Thanks to Julie Legate for suggesting this term.

Assuming Baker's (1985) Mirror Principle and that head movement is left-adjunction (Kayne 1994), much convergent evidence suggests that the raising/thematic applicative hypothesis is correct. First, as Emonds and Whitney (2006) point out, applicative affixes of all types are overwhelmingly suffixes; this is expected if they originate as heads selecting the lexical VP, but not if they are selected by the lexical verb (cf. Georgala et al. 2008 for discussion).

Slightly more complex arguments come from multiple applicative constructions. The best attested multiple applicative constructions involve multiple high-type applicatives, such as benefactive+locative in Abaza (O'Herin 2001) (9). High-type multiple applicative constructions may show multiple applicative affixes, as the example from Abaza in (9) illustrates.

- (9) S-pħa ay[?] azaŋ^w a-stol də-y-z-a-k^w-s-c'a-y-t' (O'Herin 2001)
 1SG-daughter doctor the-table A3SG.H-P3SG.M-BEN-P3SG.N-LOC.on-E1SG-put-PRS-DYN
 'I put my daughter on the table for the doctor.'

Such patterns appear to involve preposition incorporation (as argued for Abaza by O'Herin 2001), and thus no true applicative heads.

Combinations of high and low applicatives also occur, as in the Kinyarwanda beneficiary+recipient example in (10).

- (10) Umugóre a-rá-hé-er-á umugabo ímbwa ibíryo (McGinnis 2005)
 woman she-PR-give-BEN-ASP man dog food
 'The woman is giving food to the dog for the man.'

Crucially, multiple applicative constructions of this type never occur with two distinct affixes, one a dedicated low-type affix (licensing only recipient arguments), and the other a dedicated high-type affix. On the raising/thematic applicative account, the applicative head in such cases introduces an argument (e.g., the beneficiary) and syntactically licenses the recipient in the VP. If morphologically overt low applicative heads did exist, we would expect them to surface as heads, perhaps particles, to the left of the IO, or to incorporate into the verb as a prefix. In the case of multiple applicatives, we might expect a low applicative prefix and a high applicative suffix. However, crosslinguistically, I am unaware of any such example.

2.2. German and the raising/thematic applicative hypothesis

2.2.1. Two types of dative DOCs

Before I turn into investigating the question whether German has raising and thematic applicatives, I should stress that there is fairly general consensus in the literature that German has two structurally distinct classes of DOCs with an IO in dative and a DO in accusative (cf. Lenerz 1977, Wegener 1991, McFadden 2004, McIntyre 2006, among others).

The so called "low" dative DOC appears with verbs such as *aussetzen* 'to expose', *unterziehen* 'to subject', *zuföhren* 'to bring', *entgegenhalten* 'to hold towards/against', etc. The class of "low" dative DOC verbs is relatively small and displays less productivity and regularity in its behavior. The "high" dative DOC, on the other hand, occurs with prototypical ditransitive verbs (e.g., *geben* 'to give', *schicken* 'to send', *vorstellen* 'to introduce', *austeilen* 'to distribute' etc.) and a large number of verbs to which a dative argument can be freely added (cf. Wegener 1991, Frey 1993, McFadden 2004, among others for evidence in support of the distinction between the two classes of DOCs).

2.2.2. The syntax of "low" dative DOCs

There is agreement in the literature that the base order of "low" dative DOCs is ACC>DAT and that the dative argument is an oblique (Meinunger 2000, McFadden 2004, Cook 2006, among others). Meinunger (2000, 2006) and McFadden (2004) argue in support of the low position of the dative argument by comparing "low" datives to PPs. Based on morphological and syntactic similarities between the two constructions, McFadden proposes that the "low" dative is the complement of a PP with a null P head, while Meinunger argues that the "low" dative is the complement of a PP, with P

being incorporated into the verb. The structure in (11) summarizes McFadden’s and Meinunger’s proposals.

(11) [_{VP} DP_{NOM} [_v v [_{VP} DP_{ACC} [_v [_{7P} (P) DP_{DAT}] V]]]]

2.2.3. The syntax of “high” dative DOCs / applicative constructions

For the remainder of this paper I focus on “high” dative DOCs. In this section I show that “high” dative DOCs are applicative constructions of two types: thematic and raising.

2.2.3.1. Thematic applicatives

Pylkkänen’s treatment of applicatives in (6) gives rise to two diagnostics for distinguishing between high and low applicatives: (i) Only high Appl can combine with unergatives, since the semantics of low applicatives stipulates the presence of a DO (theme), and (ii) only high Appl can combine with static verbs (e.g., *hold*), since the type of event denoted by a static predicate is inconsistent with the theme undergoing change of possession.

Based on Pylkkänen’s second diagnostic, the German DOC can be a high (thematic) applicative construction, since the dative IO can combine with the static predicate *halten* ‘to hold’, as example (12) illustrates.²

(12) Eva hat Jan den Rucksack zwei Stunden gehalten
 Eva.NOM has Jan.DAT the.ACC backpack.ACC two.ACC hours.ACC held
 ‘Eva held the backpack for Jan for two hours.’

Lee-Schoenefeld (2006), McIntyre (2006) and Tungseth (2008) also provide many examples of event-related (high) applied arguments. In example (13a) the dative argument is a beneficiary, while in (13b) it is a maleficiary.

- (13) a. Er klopfte und sie machte **ihm** (die Tür) auf (McIntyre 2006)
 he knocked and she made him.DAT the.ACC door.ACC open
 ‘He knocked and she opened the door for him.’
- b. Sie haben **mir** das Leben kaputtgemacht
 they.NOM have me.DAT the.ACC life.ACC ruined
 ‘I had them ruin my life.’

The syntactic licensing of thematic applicatives is straightforward. I adopt Chomsky’s (2000:122) Agree framework, and also assume that DPs bearing inherent Case do not count as interveners for Shortest Move (McGinnis 1998, Legate 2008). Thus, the derivation of a sentence with a thematic applicative goes as follows: the applied argument merges in [Spec, ApplP] and is assigned inherent dative Case by Appl, while the DO enters into an Agree relation with *v*. Inherent Case on the applied

²Pylkkänen’s transitivity diagnostic is inapplicable in German. According to Hoekstra (1988) and Tungseth (2008), among others, “free” datives do not appear with unergative predicates in German.

(i) *Fritz hat seinem Bruder geschwommen (Tungseth 2008)
 Fritz.NOM has POSS.3SG.MASC.DAT brother.DAT swum
 ‘Fritz swam for/on his brother.’

According to Tungseth (2008), two conditions need to be met in German in order for a “free” dative to be licensed: (i) the event must be telic (excludes statives and process transitives/unaccusatives), and (ii) there must be an internal argument present in the structure, allowing for transitives and unaccusatives, but excluding unergatives. But Tungseth’s generalization does not account for example (12), in which the verb *halten* ‘to hold’ is an atelic predicate, expressing prolonged contact with an entity but no change of possession.

Independently of what the exact distribution of “free” datives is in German, the fact that their distribution is restricted posits a strong argument against accounts, which treat “free” datives as adjuncts due to their freedom of appearance (cf. Haider 1985, Vogel and Steinbach 1998).

argument prevents it from undergoing A-movement to [Spec, TP] to check Case in passive, which explains the ungrammaticality of (14b). Under the assumption that inherent Case does not count as an intervener, DO passivization is licit, as shown in (14a).

- (14) a. Der Rucksack wurde Jan gehalten
 the.NOM backpack.NOM was Jan.DAT held
 ‘The backpack was held for Jan.’
 b. *Jan wurde den Rucksack gehalten
 Jan.NOM was the.ACC backpack.ACC held

2.2.3.2. Raising applicatives

In German dative DPs may stand in a “having”-relationship with an entity, namely, the DO. What is crucial in the present account is the surface position of the dative DP, which, as you may recall from (8), I argue to be outside the lexical VP. Evidence in support of the VP-external surface position of the dative IO comes from the placement of manner adverbs. Manner adverbs may intervene between IO and DO in German, as example (15) illustrates.

- (15) Der Hiwi hat den Studenten heimlich einen alten Test ausgeteilt
 the.NOM TA.DAT has the.DAT students.DAT secretly an.ACC old.ACC test.ACC distributed
 ‘The teaching assistant (TA) has secretly distributed an old test to the students.’

Assuming that *heimlich* ‘secretly’ is positioned on the left edge of VP (Eckardt 1998 and subsequent work), the order in (15) is exactly the order predicted by the raising applicative hypothesis.

- (15') [_{VP} *der* *Hiwi* [_{v'} v [_{AppIP} *den Studenten*_i [_{Appl'} Appl [_{VP} *heimlich* [_{VP} *t_i*
 the.NOM TA.NOM the.DAT students.DAT secretly
 [_{v'} *einen alten Test austteilen*]]]]]]]]
 an.ACC old.ACC test.ACC distributed

Because the position of manner adverbs in German is still under debate (cf. Eckhardt 1998, Frey and Pittner 1998, among others), I elaborate my argument by providing evidence from quantifier floating data (16). As shown in (16), the quantifier *alle* ‘all’ can occur to the right of IO. Following Doetjes (1997) and Fitzpatrick (2006), I assume that quantifier floating in German is adverbial. Unlike frequency adverbs, adverbial quantifiers need to take scope over their associate, here the IO *den Studenten* ‘the students’. Fitzpatrick (2006) argues that adverbial floating quantifiers restrict their associates to A-movement, which is exactly what the raising hypothesis requires (16) (Paul and Whitman 2010 use the same argument in support of raising applicatives in Mandarin).³

³Sentences with a floating quantifier and two different types of adverbs, manner and event-external adverbs, reveal an interesting contrast, as shown in (i) and (ii) below. Assuming that adverbial quantifiers scope over their associate and restrict them to A-movement (Fitzpatrick 2006), and event-external adverbs (here *schnell* ‘without further delay, quickly’) are adjoined to vP/PredP, in example (i) the recipient goal IO A-moves over the manner adverb *heimlich* ‘secretly’ to [Spec, ApplP] and from there over *schnell* to [Spec, vP/PredP]. Interestingly, example (ii), a sentence with the same pattern but with a beneficiary instead of a goal is degraded. This I interpret to suggest that raising to [Spec, ApplP] only happens in the case of IO possessors, i.e., raising applicative constructions.

- (i) ?Der Hiwi hat den Studenten schnell heimlich allen einen alten Test ausgeteilt
 the.NOM TA.NOM has the.DAT students.DAT quickly secretly all.DAT an.ACC old.ACC test.ACC distributed
 ‘Without further delay the TA secretly distributed an old test to all the students.’
 (ii) ?*Die Mutter hat [den Kindern]_i schnell liebevoll allen_i Schokoladenkekse gebacken
 the.NOM mother.NOM has the.DAT children.DAT quickly lovingly all.DAT chocolate.cookies.ACC baked
 ‘Without further delay the mother lovingly baked chocolate cookies for all the children.’

- (16) Der Hiwi hat [den Studenten]_i allen_i einen alten Test ausgeteilt
 the.NOM TA.NOM has the.DAT students.DAT all.DAT an.ACC old.ACC test.ACC distributed
 ‘The TA has distributed an old test to all the students.’
- (16') [_{VP} *der* *Hiwi* [_{v' v} [_{AppIP} *den* *Studenten*_i [_{AppI'} Appl [_{VP} *allen*_i [_{VP} *t*_i
 the.NOM TA.NOM the.DAT students.DAT all.DAT
 [_{v'} *einen* *alten* *Test* *austeilen*]]]]]]]]
 an.ACC old.ACC test.ACC distributed

Note that McFadden (2004) predicts a contrast between “low” and “high” dative DOCs by base-generating the IO in [Spec, AppIP]. But his account fails to predict the semantic contrast between Pylkkänen’s low and high applicatives, which does exist in German, as I showed above. Crucially, McFadden’s account does not predict the data in (16), unless he assumes that adverbial quantifiers are adjoined to AppIP. Also Pylkkänen’s (and consequently McIntyre’s 2009) account of low applicatives in (6b) is problematic regarding the data in (16), since in her analysis A-movement of the possessor IO out of AppIP or/and VP has to be posited to explain the facts, but the landing site is unclear.

Before I proceed to the syntactic licensing of raising applicatives, I need to make an additional assumption: Appl in German always bears an EPP/OCC feature triggering raising of the highest nominal argument in VP to [Spec, AppIP]. In the derivation in (17), DO and V are first merged in V' and then IO is merged in [Spec, VP]. In the next step of the derivation, the EPP on Appl triggers movement of the IO to [Spec, AppIP]. Appl assigns inherent dative Case to all arguments in [Spec, AppIP] in German.⁴ Then *v* is merged and Agree is established between *v* and the closest DP with an unchecked Case feature, namely the DO.

- (17) [_{VP} Subj [_{v' v} [_{AppIP} **IO** [_{AppI'} Appl [_{VP} *t*_i [_{v'} DO V]]]]]]]]

The proposed analysis of raising applicatives predicts asymmetric DO passivization, which is borne out by the data in (18). Since IO bears inherent Case, it cannot undergo A-movement to [Spec, TP], which explains the ungrammaticality of (18b). Assuming that inherent Case-marked DPs do not count as interveners, DO passivization is licit (18a).

- (18) a. Ein alter Test wurde den Studenten ausgeteilt
 an.NOM old.NOM test.NOM was the.DAT students.DAT distributed
 ‘An old test was distributed to the students.’
- b. *Die Studenten wurden einen alten Test ausgeteilt
 the.NOM students.NOM was an.ACC old.ACC test.ACC distributed
 ‘The students were distributed an old test.’

So far, I have shown how German DOCs can be accounted for by the raising/thematic applicative hypothesis. In the following section, I provide novel data, confirming the base order IO>DO, which is the order exactly predicted by the raising/thematic applicative hypothesis.

3. German and the universal base order of DOCs

In the recent literature on German DOCs, it has been argued that the DO is base-generated higher than the IO. This would make German a counterexample to the crosslinguistic generalization that IOs are merged higher than DOs in DOCs (Marantz 1993, Pesetsky 1995, Bowers 2010, among others). According to den Dikken (1995) and Müller (1995), the order <IO, DO> is the result of A-bar scrambling, while McGinnis (1999) derives <IO, DO> via A-scrambling.⁵

In Section 3.1. I provide compelling arguments from depictive stranding, quantifier float and split topicalization in support of the view that German in fact respects the crosslinguistic generalization

⁴Cf. Haider (1985), Vogel and Steinbach (1998), McFadden (2004), Platzack (2005), and McIntyre (2006) for arguments in support of a non-structural-Case account of “high” datives.

⁵Tungseth (2008) also argues that the order <IO, DO> is derived in German, but she does not discuss the type of movement.

about the underlying order of objects in DOCs. In Section 3.2. I discuss the main argument of the proponents of the DO>IO base order.

3.1. Stranding and split topicalization reveal IO>DO base order in German DOCs

Previously unnoticed data from depictive stranding in German “high” dative DOCs support the hypothesis that IO>DO is the underlying order.⁶ Depictives in German can be predicated of DOs (19a), but not of IOs (19b), and can be stranded by A-movement, for example by passive (19c) or unaccusative movement (19d).

- (19) a. Eva hat Jan [das Bier]_i lauwarm_i serviert
 Eva.NOM has Jan.DAT the.ACC beer.ACC lukewarm served
 ‘Eva served the beer to Jan lukewarm.’
 b. Eva hat Jan_i das Bier nackt_{*i} serviert
 Eva.NOM has Jan.DAT the.ACC beer.ACC naked served
 ‘Eva served Jan the beer naked.’
 c. [Das Bier]_i wurde von Eva lauwarm_i serviert
 the.NOM beer.NOM was by Eva.DAT lukewarm served
 ‘The beer was served lukewarm by Eva.’
 d. Eva_i ist aus München müde_i zurückgekommen
 Eva.NOM is from Munich.DAT tired returned
 ‘Eva returned tired from Munich.’

My account of depictives is consistent either with the DO and the depictive forming a constituent (Marusic et al. 2008), or with DO controlling PRO in the specifier of the depictive small clause (Bowers 1993, among others). In the latter case, no other eligible controller (DP) may intervene between the depictive and PRO due to the Minimal Distance Principle (Rosenbaum 1967). Crucially, depictives can be stranded by *ACC DAT depictive stranding*, as shown in (20): the depictive is stranded in the base position of the DO, which moves to the left of the IO.

- (20) Eva hat [**das Bier**]_i Jan **t_i** lauwarm_i serviert
 Eva.NOM has the.ACC beer.ACC Jan.DAT lukewarm served
 ‘Eva served the beer to Jan lukewarm.’

The base order IO>DO is further supported by evidence from quantifier floating. Following Fitzpatrick (2006), I assume that the quantifier *allen* ‘all’ in (16), repeated below, has to scope over the IO. IO A-moves from its base position in the specifier of VP, to which the quantifier is adjoined, to [Spec, ApplP], while the DO remains in situ.

- (16) Der Hiwi hat [den Studenten]_i allen_i einen alten Test ausgeteilt
 the.NOM TA.NOM has the.DAT students.DAT all.DAT an.ACC old.ACC test.ACC distributed
 ‘The TA has distributed an old test to all the students.’

The last piece of evidence in support of IO>DO, newly contributed here, comes from split-NP (split-topicalization) data. In example (21) the noun *Hemden* ‘shirts’ is split apart from its quantifier *viele* ‘many’ and occurs in the Vorfeld topic position.

- (21) **Hemden**_i habe ich dem Jungen **viele**_i gegeben
 shirts.ACC have I.NOM the.DAT boy.DAT many.ACC given
 ‘I have given many shirts to the boy.’

Following Roehrs (2009), I assume that the nominal to the left, the split-off (here *Hemden* ‘shirts’), does not move out of the right nominal, the source (here *viele* ‘many’). Yet, the source does

⁶Cf. Webelhuth (1989), Frey (1993), McFadden (2004) for further arguments in support of IO>DO being the underlying order of German “high” dative DOCs.

signal the base position of the split-off. More specifically, split-NPs involve the separate base-generation of a predicative split-off and an argumental source in a local domain, the VP. The split-off undergoes subsequent movement to the left periphery. The semantic value of a proposed null noun e_N in the source is calculated on the basis of the split-off under c-command. The predicative split-off must be semantically reconstructed into the closest empty noun, with “closest” being defined in terms of the same local “address” in the VP (cf. McGinnis 2004). Crucially, in (22), having the DO source, *viele* ‘many’, originating higher than the IO, *dem Jungen* ‘the boy’, renders the sentence ungrammatical.

- (22) ?***Hemden**_i habe ich **viele**_i dem Jungen gegeben
 shirts.ACC have I.NOM many.ACC the.DAT boy.DAT given

In the following section, I discuss the main argument of the proponents of the DO>IO account.

3.2. The DO>IO accounts

The main proponents of the idea that DO>IO is the base order in German DOCs are den Dikken (1995), Müller (1995 and subsequent work) and McGinnis (1999). Their primary argument in support of DO>IO comes from Grewendorf’s (1988) and Webelhuth’s (1989) anaphor binding data in (23), which show that dative IOs cannot bind accusative DOs to their right.⁷

- (23) a. Der Arzt zeigte den Patienten_i sich_i im Spiegel (Grewendorf 1988)
 the.NOM doctor.NOM showed the.ACC patient.ACC REFL in.the.DAT mirror.DAT
 ‘The doctor showed the patient to himself in the mirror.’
 b. *Der Arzt zeigte dem Patienten_i sich_i im Spiegel
 the.NOM doctor.NOM showed the.DAT patient.DAT REFL in.the.DAT mirror.DAT
 ‘The doctor showed himself to the patient in the mirror.’
 c. Er hat die Gäste einander vorgestellt (Webelhuth 1989)
 he.NOM has the.ACC guests.ACC RECIP introduced
 ‘He introduced the guests to each other.’
 d. *Er hat den Gästen einander vorgestellt
 he.NOM has the.DAT guests.DAT RECIP introduced

However, one can account for the ungrammaticality of (23b) and (23d) by assuming that the anaphor, a weak/deficient pronoun (Cardinaletti and Starke 1995), raises from its base position within the lexical VP to its Case checking position, outer [Spec, vP] (Cardinaletti and Starke 1999). Thus, the IO cannot bind the reflexive DO from its base position. That the anaphors in (23a) and (23c) can be bound by the respective DOs is explained by the fact that IOs bear inherent Case in [Spec, ApplP] and can be bound by DOs, which are in the outer specifier of vP .

Crucially, Müller’s and den Dikken’s analyses do not account for the data in (24) (first observed by Sabel 1996), where the anaphor is embedded in the DO and the IO c-commands the DO. Picture-noun reflexives are never logophoric in German (Kiss 2001). From its base position, being c-commanded by DO, IO cannot bind either a reflexive DO or a reflexive embedded in the DO in both Müller’s and den Dikken’s accounts. Also movement of the IO to an A-bar position above the DO (specifier of μP for Müller and position adjoined to VP for den Dikken) does not lead to binding of either a reflexive DO (predicted by both accounts) or a reflexive embedded in the DO. McGinnis (1999), on the other hand, claims that Lethal Ambiguity accounts for the data in (24) and the contrast between (23) and (24). Yet, it is not clear what structure McGinnis assumes for German DOCs and to which position the IO A-scrambles. Assuming that in McGinnis’s account DO originates in [Spec, VP] and IO is the complement of V, movement of the IO to the outer specifier of V violates domain-based anti-locality (Grohmann 2003).

⁷Based on empirical studies, Sternefeld and Featherston (2002) show that (i) judgments for sentences with reflexive anaphors (e.g., 23a-b) vary considerably, and (ii) the reciprocal *einander* as IO is clearly preferred over being a DO even in cases of subject coreference. The behavior of *einander* is explained by syntactic and semantic factors which point to the conclusion that *einander* tends to behave like an adjunct rather than an object.

- (24) a. weil Eckhard_i dem Mann_j [ein Bild von sich_{i/j}]_{DO} zeigte (Sabel 1996)
 because Eckhard.NOM the.DAT man.DAT a.ACC picture.ACC of REFL showed
 ‘because Eckhard showed the man a picture of himself’
- b. Sicher hat der Hausbesitzer den neuen Mietern_j
 certainly has the.NOM house.owner.NOM the.DAT new.DAT tenants.DAT
 die Nachbarn von einander_j vorgestellt
 the.ACC neighbors.ACC of each other introduced
 ??‘The house owner certainly introduced the new tenants the neighbors of each other.’

4. Conclusion

In this paper I have introduced compelling evidence from stranded depictives, quantifier float, and split topicalization, showing that German, a language which has been assumed to be an exception by many, in fact supports a single universal hierarchy of arguments in DOCs, namely IO>DO. Following Georgala’s et al. (2008) analysis of applicative constructions which predicts IO>DO as the underlying order of objects, I proposed that German has both raising and thematic applicative constructions, but a single position for applicative heads above the lexical VP. Even when the underlying order is IO>DO in German raising applicatives, there is an additional step in which the IO raises from [Spec, VP] to [Spec, ApplP].

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