# The Syntax of External and Internal Possessor Variation in German Inalienable Possession<sup>\*</sup>

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**Abstract:** Given the use of certain inherently directional verbs, German possession constructions with a PP-embedded body part as possessum come in three variants: (i) with external possessor (EP) ('bit <u>me (DAT/ACC)</u> in the hand'), (ii) with internal possessor (IP) ('bit in <u>my</u> hand'), and (iii) with doubly-marked possession (DMP) ('bit <u>me (DAT/ACC)</u> in <u>my</u> hand'). Choice of DAT(ive) versus ACC(usative) case in variants (i) and (ii) adds a fourth and fifth option. Building on Lee-Schoenfeld 2012, Deal 2013, and Lee-Schoenfeld & Diewald 2014, this contribution posits (a) possessor raising from Spec DP of the possessum to an applicative "affectee" vP, triggered by lack of case in Spec DP, for DAT EPs, (b) a base-generation possessor-as-direct-object analysis of ACC EPs, (c) GEN(itive) as last resort when there is no available case-licensor in the verbal argument domain for IPs, and (d) a combined base-generation-in-Spec-affectee-vP and GEN-as-last-resort analysis for DMPs. The DAT EP construction is correctly predicted to be the default in German because the possessor of the affected body part is expected to be mentioned as an independent participant in the situation (someone to sympathize with), and possessor raising allows for the most economical derivation of combined possession and affectedness.

#### 1. German Inalienable Possession: The Construction and Its Variants

The prototypical inalienable possession construction in German has a dative-marked external possessor, as shown in (0).

(0)	Bello	hat	mir	die	Hand	geleckt.
	Bello	has	me.DAT	the	hand	licked
	'Bello lic					

But, given a PP-embedded possessum and an inherently directional verb like *beißen* 'bite', *treten* 'kick/step', and *schlagen* 'hit', there is variation between the default construction with a dative (DAT)-marked external possessor (EP), as shown in (1a), and four other construction types. The

<sup>\*</sup> A longer version of this paper will be published in a *Language Typology and Universals* volume edited by Gabriele Diewald: *Non-Central Usages of Datives* (Lee-Schoenfeld to appear).

EP can be accusative (ACC)-marked instead of DAT-marked, as also shown in (1a);<sup>1</sup> the construction can have a genitive (GEN)-marked possessor, i.e. an internal possessor (IP), instead of an EP, as shown in (1b); and possession can be marked by both an EP (DAT or ACC-marked) and an IP, leading to "doubly-marked" possession (DMP), as shown in (1c).

(1)	a.	Bello	hat	<u>mir/</u>	mich	in	die	Hand	gebissen.	EP
		Bello	has	me.D.	AT/ACC	in	the	hand	bitten	
		'Bello bit	t me on	the har	1d. '					
	b.	Bello	hat	in	meine	Hano	d ge	bissen.		IP
		Bello	has	in	my	hand	bit	ten		
		'Bello bit	t into m	y hand.	,					
	c.	Bello	hat	<u>mir/</u>	mich	in	meine	<u>e</u> Hanc	l gebissen.	DMP
		Bello	has	me.D.	AT/ACC	in	my	hand	bitten	
	'Bello bit me on my hand.'									

The three construction types shown in (1b) and (c) are less readily acceptable out of the blue and are considered non-standard, but, as confirmed by recent corpus work (see Lee-Schoenfeld & Diewald 2014), they do not stand out as degraded if used in certain contexts or for certain purposes. The goal of this paper is to give a formal syntactic account of all five construction types: DAT EP, ACC EP, IP, DAT DMP, and ACC DMP.

# 2. The Dative/Accusative Alternation

As established in Lee-Schoenfeld 2012, the case alternation in the EP construction, illustrated in (1a), can be given a straightforward syntactic account. Inherently directional verbs like *beißen* 'bite', *treten* 'kick/step', and *schlagen* 'hit' (which were the focus of Lee-Schoenfeld & Die-wald's (2014) corpus search) always express a telic directed motion and are therefore compatible with a directional PP, regardless of whether they are used with a DAT or ACC-marked possessor. Certain other verbs like *streicheln* 'caress/stroke' and *bürsten* 'brush', however, slightly differ in meaning depending on which case they are used with and are therefore compatible with a directional PP given one case and a locative PP given the other case. This is shown in (2).

(2)	a.	Die	Mutter	hat	<u>ihr</u>	über	den	Kopf /*an	n K	opf	gestreichelt.
		The	mother	has	her.DAT	over	the	head /*on-	the he	ead	stroked
	'The mother stroked her across the head / ?on the head.'										
	b.	Die	Mutter	hat	sie	am	Κ	opf /*über	den	Kopf	gestreichelt.
		The	mother	has	her.ACC	on-the	he	ad /*over	the	head	stroked
	'The mother caressed her on the head / ?across the head.'										

<sup>&</sup>lt;sup>1</sup> See Wegener 1985 for a thorough description of external possession involving the dative case as well as the observation that dative and accusative can alternate in constructions like (1a). The case alternation has also been discussed by Hole (2005).

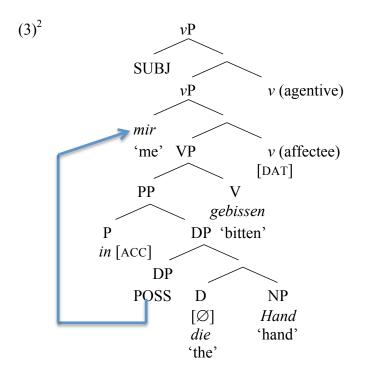
In (2a), the mother strokes the female person's (say, her daughter's) head by moving her hand from one part of the head (say the forehead) to another another part of the head (say the back of the head). This is a directed motion with the PP indicating the path being crossed – we are dealing with a PP that is selected by the verb. Notice that the construction in (2a) would be ungrammatical without the PP (*\*Die Mutter hat ihr gestreichelt*). However, it is grammatical without the possessor (*Die Mutter hat über den Kopf gestreichelt* 'The mother stroked over the head'). The latter sounds awkward because of the body part, the head, not belonging to anyone, but it is otherwise well-formed. This becomes evident when the object of the preposition is not a body-part (*Die Mutter hat über das Leder der neuen Tasche gestreichelt* 'The mother stroked over the leather of the new bag'). Hence, (2a) shows the intransitive use or directional valency frame of the verb *streicheln*.

In (2b), the mother's hand motion is not directional but is simply described as taking place on the person's head. Here, the PP indicates a location and is not selected by the verb. We know this because the PP can be left out (*Die Mutter hat sie gestreichelt*). The possessor, however, cannot be left out (*\*Die Mutter hat am Kopf gestreichelt* 'The mother caressed on the head'), and this is not due to the unpossessed body part (*\*Die Mutter hat am Leder der neuen Tasche gestreichelt* 'The mother caressed on the leather of the new bag'). Hence, (2b) shows the simple transitive use of the verb. The PP is optional, added as an adjunct.

Based on the facts in (2), where a DAT versus ACC-marked possessor leads to different meanings and thus compatibility with different kinds of PPs, we can tackle the syntax of a DAT versus ACC-marked possessor in the context of inherently directional verbs like *beißen* 'bite' in (1a). What seems like the same exact construction distinguished by nothing but the case-marking of the possessor turns out to be representable by constructions with two different verbal valency frames. DAT-marking of the possessor is indicative of the intransitive use of the verb with an obligatory PP-argument expressing the Goal or Path of the motion, while ACC-marking of the possessor is indicative of the transitive use of the verb with an optional PP.

Thus, although both variants in (1a) are compatible with a PP that indicates the endpoint of a directed motion, this PP is a crucial part of the construction in one variant and only an afterthought in the other variant. This is reflected in the pragmatics (the actual use) of the two variants by native speakers. As shown in Lee-Schoenfeld & Diewald 2014, the DAT-possessor variant is frequently used to emphasize the hurt body part and thus how exactly the possessor is affected by the biting/kicking/hitting-event. This allows the addressee to conceive of the possessor as an independently involved participant in the described event and thus as someone to sympathize with. The ACC-possessor variant, on the other hand, is mainly used to neutrally state who did what to whom. The body part and thus how the possessor is affected are not crucial. The possessor is simply mentioned as the undergoer of the action, and his or her involvement in the situation is equated with that of the affected body part, which may or may not be mentioned.

Taking a possessor raising approach to accounting for DAT EPs in German (see Deal 2013 and Lee-Schoenfeld 2006, 2007, based on Landau 1999), I picture the DAT-marked EP construction to work as shown in (3), and the ACC EP construction as shown in (4).



The possessor DP (POSS) first sits in the normal possessor position, namely the specifier of the possessed/possessum DP (see Abney 1987, Barker 1995, and many other works). Since the head of this DP cannot case-license the nominal in its specifier (an assumption I will explain in detail in the next section), the possessor is forced to look for case elsewhere and finds it due to the presence of an affectee v, an applicative/light-verb head (right below the agentive vP) that licenses dative case.<sup>3</sup> This is inherent dative case which is licensed in combination with the assignment of an affectee (male- or benefactive) theta-role in Spec affectee vP. The dual role of possessor and affectee is thus the result of raising for case-reasons with the side-effect of a second theta-role being assigned (cf. Hornstein's (1999) analysis of control). The PP, merged as sister to V, is in complement/argument position.

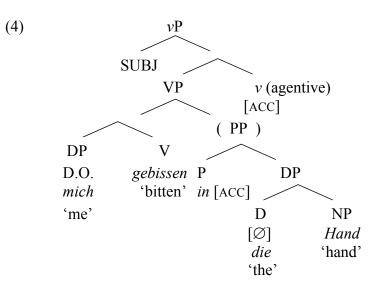
In contrast, the ACC EP construction in (4), showing the verb's simple transitive use, has the possessor complementing the verb, i.e. occupying the direct object (D.O.) position, and the PP in adjoined position (here tentatively shown at the right edge of the VP, crucially not as sister to V).<sup>4</sup> The lack of possessor raising in this construction is a consequence of the body-part PP being an adjunct, and case-driven movement (i.e. A-movement) being strictly local and thus unable to cross an adjunct boundary. Also, given that the transitive use of the verb requires only a direct

 $<sup>^{2}</sup>$  The trees in this paper show only the verbal argument domain and are therefore missing higher (functional) levels of structure needed for NOM-case licensing, agreement, and verb-second order.

<sup>&</sup>lt;sup>3</sup> How this works when the possessor is a pronoun rather than a full DP, as in the examples here, will be addressed in section 4.

<sup>&</sup>lt;sup>4</sup> The PP will be in the correct order with respect to the direct object and the verb after V head-moves and then adjoins to v.

object but syntactic encoding of the possessor relation additionally requires the PP that embeds the possessed DP, reliable syntactic encoding of the possessor relation is simply not an option here. In other words, since the possessum-containing PP is optional, Spec DP of the possessum cannot be where the obligatory direct object originates. When the body-part-including PP is indeed adjoined, the possession relation must arise via inferencing. Since the contexts in which the ACC-marked EP construction is used (again, see Lee-Schoenfeld & Diewald 2014) downplay the fact that the hurt body part belongs to the undergoer of the action and causes his or her affectedness, it seems right that the possession relation is syntactically made less obvious in this construction type.



What the structures in (3) and (4) have in common is that their verbal shell includes the external argument (SUBJ)-introducing agentive vP-layer. The head of this vP can license accusative case (Burzio's (1986) Generalization), and in (4), unlike in (3), there is a DP that the agentive v-head can enter into a static Agree relation with, namely the direct object. Also, the PP-internal structure is the same in (3) and (4). Due to the inherently directional verb, the P licenses accusative (as opposed to dative) case.

This covers two of the five construction variants (the two EP ones). How the other three variants fit into the formal syntactic analysis given thus far is the focus of the next section.

## 3. Genitive as Last Resort

As briefly mentioned in section 2, I assume that the specifier of the possessed DP is a caseless position. This is based on Deal's (2013) analysis of external possession in Nes Perce, in which she argues that D never case-licenses the DP in its specifier. The proto-typical case that we see on a DP in the specifier of another DP, genitive, is the result of last-resort case assignment at PF (see e.g. Schütze 2001 and Poole 2015 for a similar understanding of what they call "default" or

"unmarked" case).<sup>5</sup> That is, if there is no narrow-syntactic way for a nominal in Spec DP to get case-licensed, for instance, when there is no dative-case-licensing affectee vP projection, this nominal will get genitive case post-syntactically, at the PF interface. Importantly, this means that raising of the possessor from Spec DP of the possessum to Spec affectee vP is not movement from one case position into another, which would be illegal because a DP whose case-feature has already been valued is inactive (no longer an available goal) with respect to A-movement. Since Spec DP is not a case position, the possessor is free to move to get dative-case-licensed by affectee v.

Crucially, the assignment of genitive as last-resort case at PF also makes it possible to account for the less common but nonetheless grammatical IP and DMP variants of our inalienable possession construction. Without the projection of a dative-case-licensing affectee vP to express that the possessor of the body part is an independently involved participant in the situation, the possessor remains in its origin site in Spec DP of the possessum, the internal possessor position, and ends up with genitive case due to post-syntactic case assignment. The same holds for the internal possessor in the ACC DMP construction. When it comes to the DAT DMP variant, it is not the absence of the dative-case-licensing affectee vP that forces genitive-case-marking as last resort but the fact that Spec affectee vP is filled via external merge. In other words, the possessor in Spec DP of the possessum cannot move to Spec affectee vP to get case because an affectee argument has been base-generated there. The exact details of each construction variant are laid out in the remainder of this section.

I envision the five possibilities that the syntax of German offers for the expression of inalienable possession with a PP-embedded body part as the results of a flowchart with four decision points.<sup>6</sup> The flowchart is given in Figure 1, and the decision points are described here:

(i) The verb may be used as directional (with a PP-argument) or as transitive (with a PP-adjunct). Only the directional use allows for the expression of the possessor as an empathetically involved participant, that is, as someone who is more than just the undergoer of the action (more than just the affected body part), someone whose perspective matters. This means that, when a non-emotional, neutral description of the facts is called for or when it is not known what the affected body part is, the transitive use is more appropriate.

(ii) Affectedness (empathetic involvement) may be syntactically encoded (via the presence of an affectee vP) or not. Even when the verb is used directionally, the verbal shell may not include an affectee vP. In order to completely downplay the possessor's involvement, even his or her role as an undergoer, the directional use of the verb without an affectee vP projec-

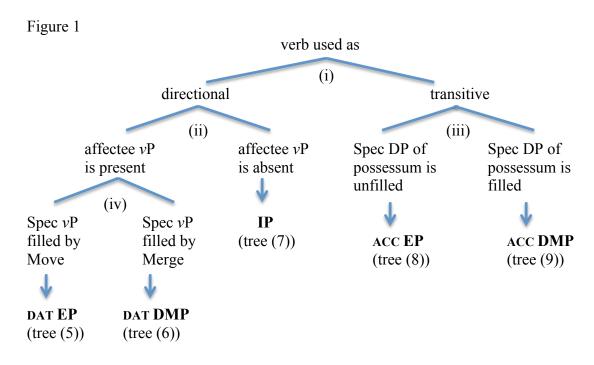
<sup>&</sup>lt;sup>5</sup> This improves my possessor raising account presented in earlier work (Lee-Schoenfeld 2006, 2007, 2012), where I argued that Spec DP of the possessum is a caseless position due to a "defective" D, a D that lacks case-licensing ability and coincides with the presence of an affectee vP projection. The problem with this defective D account is that it has trouble capturing the DAT DMP construction as well as sentences with non-coreferring affectee and possessor, where genitive case is licensed inside the possessed DP despite the presence of an affectee vP. D would need to be defective in some possession constructions but non-defective in others.

<sup>&</sup>lt;sup>6</sup> Thank you to Amy Rose Deal for this suggestion.

tion is the most appropriate. This use only allows mention of the possessor in the form of a possessive pronoun (as GEN-marked internal possessor), yielding the **IP variant of the construction** (see tree (7)). Not mentioning the possessor of the affected body part as a participant in the situation is normally not appropriate (after all, the possessor necessarily feels the pain via the hurt body part), which is why the IP construction variant is less common than the EP one.

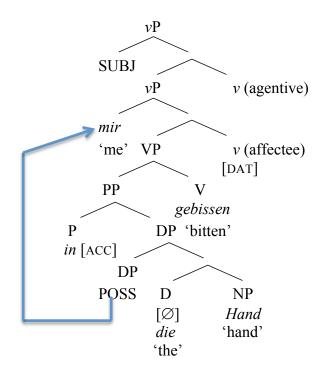
(iii) Possession may be syntactically encoded (via a nominal in Spec DP of the possessum) or not. When the verb is used transitively and the body-part PP is adjoined, the specifier of the PP-embedded possessum may be filled or not. The more common variant is that with an unfilled Spec DP, yielding the ACC EP construction (see tree (8)), which is used to neutrally state who did what to whom. The possession relation is either not expressed at all because the body-part PP is not included in the construction, or it is established via inferencing. The less common variant is that with a filled Spec DP, yielding the ACC DMP construction (see tree (9)). This is where the possession relation between the ACC-marked possessor and the body part that is normally merely implied is expressed explicitly. The rarity of this variant is captured by the analysis in that the syntactic choices leading to the construction are almost contradictory. On the one hand, the transitive use of the verb is chosen over the directional one, so empathetic involvement of the possessor cannot be made explicit, and the body part (possessum) is only added as an aside. On the other hand, the possessor is explicitly mentioned in the possessum phrase. It is as if the speaker did not want to evoke sympathy for the possessor but still describe the situation in as much neutral detail as possible.

(iv) Spec affectee vP may be filled by internal merge (Move) or external merge (Merge). Given the directional use of the verb and the presence of affectee vP, another decision point is whether to fill Spec affectee vP by internally merging (raising) the possessor or by externally merging (base-generating) the possessor. The former (possessor raising) option yields the proto-typical DAT EP construction (see tree (5)), and the latter (base-generation) option yields the less common DAT DMP construction (see tree (6)). The fact that the latter is used less frequently is captured by the analysis in that it is less economical to have a derivation with two DPs that need to be coindexed in order to convey that the same person plays the role of both possessor and affectee than a derivation with only one DP playing a dual role.

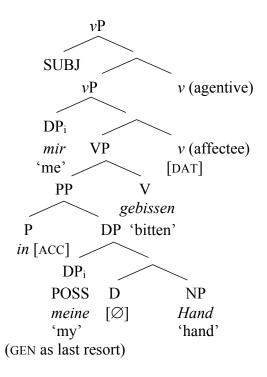


Trees (5) and (8) were already explained and shown as (3) and (4) in section 2. They are reprinted here to allow the best possible overview of the five inalienable possession variants under discussion.

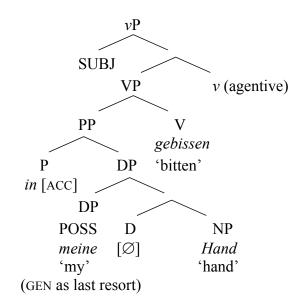
# (5) **DAT External Possessor (EP)**: Directional valency frame, possessor raising



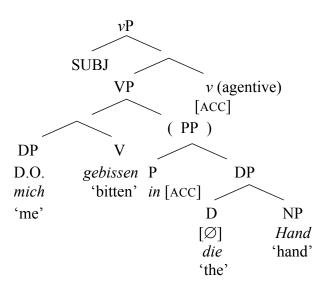
(6) **DAT Doubly-Marked Possession (DMP)**: Numeration has elements to form an extra DP, an externally merged Affectee



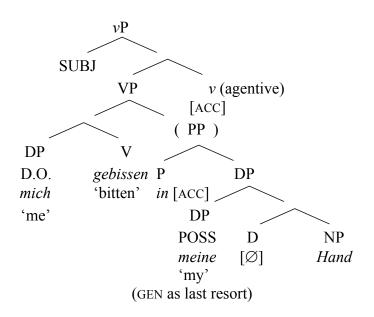
(7) Internal Possessor (IP): Numeration has no affectee v



# (8) ACC External Possessor (EP): Transitive valency frame



(9) ACC Doubly-Marked Possession (DMP): Numeration has elements to form an extra DP, POSS in Spec DP



# 4. The Special Case of Possessive Pronouns

While it is commonly assumed that a prenominal possessor that is a full DP gets its genitive case or possessive marking (the Saxon Genitive's, which is limited to names in German) in Spec DP of the possessum (Abney 1987), it is less obvious how to analyze possessors that are pronouns. For the analysis proposed here, where the underlying possessor in the DAT EP construction moves into the verbal domain to become an additional verbal argument, possessive pronouns must be full DPs in Spec DP of the possessum.

The most common analysis of possessive pronouns, however, is that they are Ds (see e.g. Sternefeld 2007, where this is what is argued to hold for German) because, in many languages, possessive pronouns compete with elements in D, in particular, with articles. This, in turn, is problematic because of binding facts like the following.

(10)	Sein <sub>i</sub>	Hund	liebt	ihn <sub>i</sub> .
	hisi	dog	loves	him <sub>i</sub>
	'His de	og loves hi	<i>m</i> .'	

Given the DP-Hypothesis, if the possessive pronoun were in D, the whole subject DP would bear its index, and the pronominal in direct object position would be bound. This would lead to a Condition B violation and thus ungrammaticality, counter to fact.

This problem is solved if the possessive pronoun is analyzed as a full DP in Spec DP of the possessum because from Spec DP, the possessor DP does not c-command the contents of the predicate, and the pronominal is correctly predicted to be free.

Given the possessive-pronoun-as-full-DP approach, the English first person singular pronoun, for example, gets genitive case from D and is spelled out as my, as opposed to I or me. In German, we possibly have the same situation as in English, except that the possessor DP is morphologically case-marked twice, bearing not only genitive but also the case assigned to the possessum DP as a whole, as in e.g. [[mein]<sub>GEN</sub>e]<sub>ACC/FEM</sub> Hand] in (6), (7), and (9) (see Merchant's 2006 discussion of case-stacking). Number and gender agreement of German possessive pronouns with the noun could be argued to work via spec-head agreement with D, so that possessive pronouns can be DPs despite not inflecting like nouns (cf. Lindauer 1998, who argues that they are APs).

If German possessive pronouns can indeed be analyzed as DPs in the specifier of the possessum, possibly after having moved there from a DP or NP-internal position, the next question is whether the internal shape, the genitive form, of German possessive pronouns can in fact be the result of last-resort case assignment at PF rather than narrow-syntactic case licensing. My answer here is 'yes' but I leave the necessary details to be worked out in future research.

Note also that, when the possessor DP moves out of Spec DP of the possessum, the otherwise null D is spelled out as a singular definite article. This is what yields the prototypical DAT EP construction (*Er hat mir in <u>die</u> Hand gebissen* 'He bit me on the hand'). When an indefinite article shows up (as in *Er hat mir in <u>eine</u> Hand gebissen* 'He bit me on one of my hands'), it is because the body part comes as a pair (*#Er hat mir in eine Nase gebissen* 'He bit me on one nose' is impossible given the inalienable possession reading). The indefinite article *eine* here still picks out a specific entity, namely one of my two hands. Since the use of an indefinite article in this construction also allows for the alienable possession reading (for example, where *eine Hand* refers to one of the severed hands to be examined by a med student), I propose that the occurrence of an indefinite article goes with the external merge (base-generation) account of the nominal in the specifier of affectee vP, where no possessor raising happens (as in the DAT DMP tree in (6)). The possibility of the alienable reading of the possessum with an indefinite article is excluded in the ACC EP construction, which is probably the reason that the use of an indefinite article in this construction is less readily acceptable (*?Er hat mich in eine Hand gebissen*).

#### 5. Conclusion

To sum up, the five inalienable possession constructions German speakers have in their repertoire are accounted for by two main derivation types, one evolving around a verb with a directional valency frame and another evolving around a transitively used verb. Within the former type of derivation, there are three possible sub-derivations leading to DAT EP, DAT DMP, and IP, and within the latter type of derivation, there are two possible sub-derivations leading to ACC EP and ACC DMP. For extensions of this research to English inalienable as well as German alienable possession constructions, see Lee-Schoenfeld to appear.

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